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#### AESTRACT

This research undertook to determine the nature and extent of academic and motivational change in low-achieving junior high school students with some talent in music who participated in a special music training program. About 100 students in each of five schools were selected by a screening instrument and assigned randomly to experimental or control groups. For 3 years, each experimental student studied voice or an instrument as a music major, and the project was completed with about 42 students in each of four schools. Results indicated that no significant differences existed between the experimental and control groups with regard to scores in reading, arithmetic, and study skills; grades in language arts, social studies, and mathematics; teacher ratings on attitudes and behavior: or attendance. Interviews with 46 students indicated that participation in the program led to personality improvement, stimulation to study, and a more meaningful attitude toward school. (The second part of this report contains 10 units on music, tests and answers, charts, and illustrative materials from a project-developed curriculum designed to interest non-achieving students in learning music.) (Author/IH)



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FINAL REPORT Project No. 2600 Contract No. 0E5-10-197

MUSICAL ABILITY UTILIZATION PROGRAM

April 1969

Martin Olanoff, Louise Kirschner

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Office of Education Bureau of Research

Board of Education of the City of New York Bernard E. Donovan, Superintendent of Schools

Office of Educational Research
J. Wayne Wrightstone, Assistant Superintendent

Bureau of Educational Research Samuel D. McClelland, Acting Director George Forlano, Acting Assistant Director



#### PREFACE

The proposal for the Musical Ability Utilization Project was initiated by the late Dr. Joseph O. Loretan, Deputy Superintendent of Schools. In association with Dr. J. Wayne Wrightstone and Dr. Samuel D. McClelland, a visit was made to the United States Office of Education to discuss the funding of the project with representatives of that office. The representatives encouraged a proposal. The original grant proposal was written by Mr. Martin Olanoff, under the direction and supervision of Dr. Samuel D. McClelland. The project survived to completion because it was possible to make adaptations of the design to fit the changes in organizational structure of the junior high schools in New York City. At the initiation of the project, these junior high schools were converted from a conventional grade 7-8-9 to a new grade 6-7-8 intermediate school. This change required modifications in the design of the study and other adaptations which are discussed in detail in the body of the report.

The day-to-day conduct of the project was the responsibility of two staff members. The project team planned and supervised the implementation of the program in the participating schools; it created and distributed new curriculum materials in music; it conducted all evaluation activities.

Mr. Martin Olanoff was Project Director. Under general supervision, he was responsible for seeing that the project was carried out in accordance with policies and plans that were agreed upon by a steering committee. He was in charge of research and evaluation, including the construction of new instruments and the administration of the more conventional tests and measures. He suggested important revisions in the project as dictated by its development over the four-year period.

Miss Louise Kirschner was the Project Music Specialist. The preparation of special curriculum materials, teaching methods, and music program coordination was her responsibility. Miss Kirschner developed materials in music fitted to the abilities of the disadvantaged pupil involved in the Musical Ability Utilization Project. These materials constitute Part II of the final report. It should be pointed out that the development of these materials was not originally contemplated in the design of the study. Miss Kirschner also furnished valuable assistance and cooperation in dealing with problems in the area of planning coordination and evaluation.

Mr. Samuel E. Chelimsky and Mr. John Motley comprised the music team which furnished the knowledge, ability and effort required to develop a meaningful music screening test. They helped to plan and execute the first year of the music program. Mr. Chelimsky has been assistant music director of the project.



#### ACKNOWLEDGMENTS

The Musical Ability Utilization Project required a special mobilization of educational resources and personnel. The design and implementation of the program involved the contributions of a large number of teachers, specialists, administrators, consultants, and researchers. The program was planned and guided by the extensive experience of all personnel. The interactions among personnel furnished the foundations for communication and continual feedback to and consultation with participating teachers and supervisors.

The sustained excellent efforts of the hard-pressed teaching and administrative staffs of intermediate schools, formerly junior high schools, involved in the project, is sincerely appreciated. The music teachers in the schools took on additional tasks and were always ready to work together with the project staff to eliminate problems and to assist in the development of new materials. The principals, assistant principals, guidance personnel and classroom teachers also rendered assistance beyond their usual responsibilities and duties.

The concepts implicit in the hypotheses upon which the project was based were originally conceived and sponsored by the late Dr. Joseph O. Loretan, Deputy Superintendent of Schools. His deep interest and assistance helped the project over the considerable early hurdles. After his sudden death, Mrs. Helene M. Lloyd, Acting Deputy Superintendent, continued his work. More recently, Dr. Seelig Lester, Deputy Superintendent, has acted as a principal investigator near the conclusion of the project.

Dr. J. Wayne Wrightstone, Assistant Superintendent of Schools in Charge of Research, provided comprehensive direction of the program and provided essential inspiration and editorial supervision in the preparation of the final report.

The original grant proposal and research design were prepared by Mr. Martin Olanoff under the direction and supervision of Dr. Samuel D. McClelland, Acting Director of the Bureau of Educational Research. Dr. McClelland provided continuing assistance and guidance in his function as principal supervisor throughout the four years of the project.

The support and counsel freely given by Mr. Benjamin Chancy, Director of Music, was indispensable to the culmination of the project. The entire staff of the Bureau of Music, professional and administrative, demonstrated their usual friendly and wholehearted cooperation. Dr. Robert L. Thorndike and Dr. Roscoe Brown, Jr. served as consultants on the research design and the analysis of data. Special mention is made of Mr. George Saslow who acted as field music supervisor in a critical period of the project.

Gratitude is expressed to Mrs. Adrienne Freedman, the project secretary and coordinator, Mrs. Dorothy Conover, music secretary and music material producer, Mrs. Barbara Hicks, music secretary, and other excellent administrative co-workers. Mrs. Aida Price furnished invaluable assistance in her responsibility for the analysis of research findings and report drafts. Miss Leanne Domash assisted in these efforts. A deserved note of thanks is



given to Mr. Richard Cumbo for his care and attention to the numerous details of project fiscal affairs. Mrs. Jeanne Shapiro had the responsibility of typing the final report.

The writing of this report was done under the advice and close direction of Dr. Wrightstone, assisted by Dr. McClelland. Generous effort and cooperation in the final report writing has been contributed by Dr. Philip Bolger, Dr. Thomas Capone and Dr. Richard Turner. Dr. Sue Moskowitz is responsible for editing the final report.

The project was supported, in part, by the Office of Education of the Department of Health, Education, and Welfare. The prime contracting agency for the project was the New York State Education Department. These organizations were extremely considerate and helpful at all stages of the project. Special recognition is given to Dr. Lorne Woollatt, Associate Commissioner for Research and Special Studies, and his associates for their contributions to the conduct of the project.



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#### CHAPTER I

### INTRODUCTION

# The Problem

The major objective of this study was to determine the nature and extent of academic and motivational change in junior high school students who participated in a special program of training in music. The program specifically involved students with low academic achievement who were identified as having some talent in music.

# Background of the Problem

New York City can readily be viewed as the prototype of the large American urban complex, striving to meet the increasing challenges in education associated with social, economic, educational and cultural change. It is in the depressed urban complex beset with multiple problems that one finds the greatest alienation of the child from the school.

The children in the New York City public schools come from families with high, average, and low incomes. However, the city's areas of economically disadvantaged residents have increased rapidly. In the Sixty-Seventh Annual Report of the Superintendent of Schools of the City of New York: Statistical Section I it was indicated that, on the average over the last ten years, 39,100 pupils were admitted into the New York City public schools every year. Of these, approximately 20,600 came from continental United States. A very high proportion of these children came from rural sections of other states, especially in the South, which have much lower standards of teacher certification and curriculum requirements than the New York City public schools. The remainder of those entering the city schools were, on the whole, not English speaking; a large proportion came from Puerto Rico, as well as from Europe and Asia. These trends are continuing.

While some 400,000 pupils were entering the New York City public schools during the ten-year period, a large outward mobility of pupils was simultaneously going on.

It is well known that those pupils transferring from New York City public schools to areas outside New York City are from predominantly middle class families of all ethnic groups. The children in these families are those who typically achieve at or above grade norms in academic areas. These in-and-out migrations of pupils, have resulted in a net loss of school-oriented middle class children to the surrounding suburbs, and an increase in the already large number of children with language difficulties and below-average academic achievement.



Prepared by the Bureau of Educational Program Research and Statistics, Board of Education of the City of New York, 1966.

Another serious and associated educational problem in New York City is the high student-mobility rate within the city's own boundaries as families change residence. In every year since 1962, one out of every five or six pupils in New York City schools has been transferred, admitted or discharged. This high rate of student mobility exerts a negative influence upon the learning of the children, some of whom move from school to school twice or even oftener during a single school year. Since the rate of mobility is far higher for some schools than for others, the problem is even greater for a number of schools than the average figures suggest.

# Educational Programs to Meet the Needs of the Special Student

In an effort to compensate for those contributing factors that militate against the academic achievement of many school children, the New York City public schools have in the past undertaken numerous educational experiments ranging from preschool programs to the provision of enriched and remedial education in Special Service schools. Nevertheless, the school system is keenly aware of its limitations in raising the aspirations and improving the academic achievement of many of its students. Such students react at an early age with deep feelings of failure to the educational deficit they perceive in themselves. Their confusion about their own personal worth and ability to compete successfully with more advantaged members of society tends to reinforce feelings of rejection of school and of academic learning. The expectation of failure rather than success tends to color the academic lives of many of these children and itself tends to have a negative influence on academic success. With these factors in mind, the New York City school system recognizes that better ways of reaching these pupils must always be its goal. It is further recognized that such ways must not only take account of the student's limitations but must also build on his abilities and interests, both as a way of helping him relate to the school and of helping him develop his own talents.

In an attempt to improve the academic performance and motivation of low-achieving pupils in the schools, attention is thus given to the "non-academic" areas in which pupils may possess strong interests and a high degree of potential. The rationale underlying such an approach has been that successful school experiences of any kind tend to encourage the student's own expectations of school success in general. It is further hypothesized that positive feelings that may develop because of success in a "non-academic" area result in a more positive attitude toward the school in general, with improvement in academic achievement and motivation. The music talent project of the New York City Board of Education is based on the hypothesis that positive attitudes toward school grow out of success in a nonacademic area and motivate the student to higher achievement in academic areas.

# Related Literature and Research

A sound basis exists for the belief that academic learning can be furthered by capitalizing on the pupil's talent and interest in music. It is of value to summarize here some of the opinions and research findings that are pertinent.



# The Education of the Special Student

The education of the "culturally-different" child presents unique difficulties. There have been numerous discussions and evaluations of educational methods and goals in an attempt to develop solutions of these difficulties. In a report by Bloom (1965) and others a series of modifications in orientation was suggested to meet the changing needs of all students demanded by changes in the society. As stated in this report (1965) the changes were likely to have some of the following goals:

- 1. Increasing emphasis on higher mental processes of problem solving rather than on the learning of information.
- 2. Increasing emphasis on the structure and basic methods of inquiry in each subject field. The felt need is for learning how to organize a changing curriculum and to study learning patterns and teaching methods that lead to understanding and functional knowledge rather than accumulation or rote reproduction of minutiae.
- 3. More stress on the ability of learning how to learn.

  Learning must continue throughout life in order to deal with changes in the occupational field, the changing nature of society, and possibilities for self-actualization.

The above recommendations reflect the growing awareness of educators of the importance of offering all students good quality education. Thus, education must be adapted to the special needs and characteristics of students from low socioeconomic groups. Analysis of the literature in the area of teaching these groups is represented particularly by such publications as Educational Policies Commission, (1962), Reissman (1962), Sexton (1962) and the Detroit Public Schools (1961). These studies suggest the following general conclusions:

- 1. The child with a "different" background has a usual range of intelligence and abilities and can achieve if reached by the offerings of the school.
- 2. The child's values, motivations and cognitive style are probably foreign to middle-class culture.
- Present school programs need re-orientation and new approaches for children from different, experientially limited backgrounds.

These conclusions support the contention that the disadvantaged child must be approached in terms of his own interests and abilities if he is to be motivated towards higher academic achievement.

# Music and Education

The place of music as an integral part of the elementary and junior high school curriculum has had favorable comment from many educators including Keller (1951), Beck (1956), Mursell (1943), Shane and McSwain (1951) and Ragan (1953).



The particular value of music training has been viewed from the position of pupils' needs and interests by Ragan (1953) who says:

The importance of skills and knowledge for furthering musical growth must, of course, be recognized. In our efforts to develop the techniques of music, however, we must not overlook attitudes and opportunity for musical expression. The varying degrees of musical ability found in any group of children make it necessary to include in the program a variety of music activities so that every child can find some activity which he can enjoy and in which he can achieve some measure of success.

Similar comments on the importance of instrumental and choral instruction are found in McNerney (1953), Brooks and Brown (1946), and Dykma (1931).

While favorable commentary abounds in the area of music instruction, studies that specifically report on the effects of experimental music programs for the disadvantaged have not been found. For this reason studies that have dealt with music education for a more heterogeneous school population will be briefly presented. A summary follows.

Instrumental and choral music instructions as an integral part of a community effort to solve educational problems has been reported in Polley, Loretan and Blitzer (1953). The effect on student attitude and behavior by the music program in the above mentioned Bronx Park School Community study is reported in detail by Chelimsky (1962). Friedman (1959) reports a formal study of the effect of participating in a music major instrumental program upon reading and arithmetic achievement. The study was carefully designed and controlled and led to the conclusion that the pupils in the major music program did not suffer lower grades than matched pupils who did not have major music.

In an informal study of academic change associated with a music program for a heterogeneous class of elementary school children Abramowitz (1962) reported gains for all students. However, since he did not use a control group, it was not possible to attribute these changes to the experimental program with any confidence.

## Problems of Measurement

A difficulty widely documented in the literature on educational programs for the disadvantaged is that of obtaining meaningful and valid educational measurements. The major difficulties gleaned from various reports can be summarized as:

- The length of time necessary to effect a significant change in academic performance or personality factors.
- 2. The questionable applicability of standard ability and achievement tests to this population.
- 3. The problem of validity of survey, rating scale, and interview techniques when used with this particular population.



Also implicit in the present study was the need to develop adequate measures of music potential and achievement for the experimental population.

A variety of testing procedures and instruments have been developed and used in measuring music skills. Friedman (1959) relates the use of a modified version of the Pan American Test. This simple measure was further simplified for younger children. The test features written responses of "same" or "different" to ten items of musical discrimination. Although the Pan American Test is the least complicated of the commercial standardized tests, it has the disadvantage of measuring recognition rather than performance.

The most applicable of the widely used standard tests seems to be the Drake Musical Aptitude Tests (1954). The reliability and validity of this test are reported by Lundin in Buros (1959), and further reference to this and the previous Drake Test are found in Karlin (1941), and Gordon (1958).

Careful examination of the above procedures for testing musical skills found them to be generally adequate for the average student. However, none of them appeared to be suitable for disadvantaged children with low academic achievement. It was, therefore, expected that during the course of the present study, instruments and techniques would have to be developed to meet the need for valid and meaningful measurement of change and status in musical skills.

### Music Programs in the New York City Public Schools: History and Philosophy

The study of music has traditionally been included as an integral part of the regular elementary and junior high school curriculum in New York City. Since 1914, the Board of Education has also provided group instrumental instruction under private teachers during after-school hours. Most often, because schools did not purchase instruments for this program, parents have had to provide them. Participation in such programs has been limited to the children whose parents are better able to meet the costs.

There are numerous other factors that have served to restrict the effectiveness of the music program. The most common of these, especially in the elementary schools, have been the lack of materials and equipment, the limited special training in music of regular classroom teachers, and lack of supervision by specially trained personnel, as well as pressures for academic achievement. These problems are further complicated in the junior high schools by the need to conduct many of the music classes in the school auditorium, since very often the music room available is inadequate for the size of large combined classes. These large classes have been very common in many of the older junior high schools. Under such conditions it has sometimes been difficult for the instructor to know students, to provide individual attention, to plan activities, and to capture student interest. Despite these many difficulties the underlying belief in the intrinsic worth of the music program by both the students and educators involved has resulted in strong enthusiasm in the area.



The New York City Board of Education (1951) has clearly stated its position on the place of music in the school curriculum at the elementary and junior high school level, as follows:

When a pupil has had epportunities to express himself musically in many different ways, music becomes functional and meaningful to him. One type of participation does not replace another but the wholeness of the program stimulates the child to further interest and expression. Music also contributes to other areas of the curriculum; one is enriched by the others and greater appreciation and background of culture results.

# The General Music Program in the New York City Junior High Schools

At the Junior High School level all students are required to take a course in general music. It is programmed for a forty-five minute period given once a week. The course of instruction involves children in the singing of familiar and often current songs, reading new songs, listening to recordings, and discussing varied music topics.

In the general music program the greater portion of each lesson is devoted to group singing. The objective here is to build a common reportory of community songs that may later be sung in class, at assemblies, and at different school functions. Various types of other songs, including pioneer ballads, spirituals, work songs, and sea chanteys are also included. Songs selected may be related to such subject areas as social studies, literature, and foreign languages.

Other types of classroom activity may involve playing records to stimulate the perception and appreciation of good music. Attention is also given to the history of music, to composers, and to events of interest in the world of music. In general the aim is to stimulate pleasure and appreciation of music and to broaden musical knowledge with the recognition of musical compositions together with some understanding of their structure. In broader perspective it represents an attempt to involve the student in an art that may interest him for the rest of his life.

# The Major Music Program in the New York City Junior High Schools

Major music programs, offering both instrumental and vocal instruction, have existed in New York City schools for many years. Orchestra, band, and chorus instruction are now among the regularly scheduled instructional courses in all junior high schools. Usually, students are selected to participate on the basis of the following criteria:

- a. Performance on a general test of musical abilities given by junior high school music teachers to all sixth grade students.
- Performance level in a reading ability test and other academic achievement indices.
- c. The extent of music program space available.



The organization of the major music program varies from school to school, and depends on the enrollment, the number of instruments available, the number of music teachers on the staff, and the number of pupils in the program with the ability to sing or play an instrument. In general, students in the program receive scheduled instruction for four periods a week during usual school hours.

In the instrumental program, instruments and music are usually supplied by the school. However, because the number of applicants is most often larger than the number of instruments available, the same instrument is often assigned to several students. A generally accepted and common plan of instructional organization in the instrumental program is to group string, woodwind, and brass classes in the seventh grade and to continue these groups through the ensuing grades. One preferred way of programming is to allow proficient students from all three grades to play together as a group and to permit other students to join classes for beginners. Many other modifications in programs are encouraged to accommodate the particular circumstances found in any one school.

Vocal music instruction in the major music program has undergone increasing emphasis in recent years. In 1959 it dropped its extra curricular status to become a regularly scheduled instructional program. A developmental choral program is now operating with broadened scope and revised programming. The program has resulted in many choral performances in borough festivals and other public ceremonies, that have brought satisfaction to all involved.

# The Musical Ability Utilization Project

The shortage of musical instruments and limitations of staff and space have in the past made it necessary to limit admission into the major music program to those students who show the greatest academic and musical aptitude. The Musical Ability Utilization Project specifically planned to further extend the major music program to those students who demonstrated ability in music but who had a record of poor academic achievement. The intent was to provide for these low-achieving students a greatly needed experience of school success. To realize this objective it was necessary to make special modifications in the usual major music program for the low-achieving student. It was also necessary to prepare special instructional materials and in general to adapt a flexible curriculum as emerging needs were perceived. The program also differed from the more traditional program in that the participants were not volunteers. Moreoever, it was planned to program these students together in classes so that instructional modifications might more easily be made.



# Specific Purposes and Objectives

The purposes of the experimental Musical Ability Utilization program were to realize certain objectives for the selected sample population of New York City junior high or intermediate school students with high musical ability who had a record of low academic achievement. These objectives were:

- a. To increase the student's achievement in academic subjects.
- b. To achieve significant growth in musical proficiency.
- c. To create a significant positive change in the student's attitude toward school and toward academic achievement.
- d. To produce an overall improvement in general school behavior.
- e. To create a feeling of success in the student.
- f. To induce positive growth and maturity in the student's personality.

The objectives of the evaluation program included the following:

- a. To assess the extent and nature of implementation of the experimental program during its initial phase in the first year.
- b. To assess the adequacy and validity of a test of musical ability specially devised to meet the needs of the sample population.
- c. To measure and evaluate the levels of achievement attained in music and in general academic areas.
- d. To assess status and changes in school attitudes, self concept and other personality factors.
- e. To compare the change in the above variables with the change measured in students of a control group.



### CHAPTER II

### THE DESIGN OF THE STUDY

# Introduction

The present investigation was undertaken to determine the effect of participation in a major music program upon pupils who were, academically, below grade norms. As has been stated, the hypothesis was that if these students were given the opportunity to participate in a talent program in which they could achieve success, they might also achieve (1) success in the academic areas through a change in attitude toward academic achievement and (2) a change in school behavior.

In order to determine whether these changes would, in fact, be affected, the study was designed on an experimental-control model. A pool of students was obtained and, from this pool, students were selected at random and placed in the experimental or control group. They were thereafter subjected to the same curriculum, except that the experimental students were placed in a major music program and the control group students were not.

The remaining portions of this chapter are devoted to details of the study as it was originally designed. In actuality, as the result of unforeseen changes in conditions, the structure of the design was altered from time to time. These changes in structure are discussed in Chapter III, "Implementation of the Program." Examination of this chapter and Chapter III will provide for future investigators some interesting insights into the evaluative process as designed and as implemented. The sequence of steps in the original design follows.

# Preparation Year

The objectives of the preparation year were to select representative and appropriate schools, to select students, to assign students according to project design, to prepare the preliminary project music program, and to coordinate project activity with the administrative program in each school.

# Selection of Schools

In order to carry out the objectives of the project, it was necessary to select schools that would be typical of special service junior high schools in New York City. Special service schools are those whose student population reflects a combination of problems including low socioeconomic background, a certain percentage of non-English speaking students, and a low reading grade average.

The project was limited to five schools. It was planned to have these schools furnish a representative sample of the citywide student population with learning difficulties. In addition, the project schools had to have sufficient facilities for mixed classes, a trained music staff, an administration favorable to the project, and a population of students with low academic achievement large enough for the project.



# Selection and Assignment of Students

Since the plan was to compare the effect of music participation on the performance of students with low academic achievement, it was necessary to determine the potential of these students for success in music. An experimental test of music potential was devised for the purpose. Preliminary investigation confirmed the supposition that the students lacked experience with formal music education. In addition, the usual lack of test-taking sophistication of students in special service schools indicated that conventional paper and pencil tests would not furnish valid results. It was concluded that in order to achieve meaningful measurement, the screening test should be individually administered and each item graded separately. The test was to contain student response items in imitative rhythm, discrimination, and performance categories.

Students selected would be in the sixth grade during this preparation year, and would begin the program when they entered junior high school the following fall.

The students were to be approximately two years below grade in reading and would come from all of the "feeder" elementary schools for each of the five junior high schools in the project.

Approximately 1200 students were to be tested in order to select 500 students who would be in the top 40% of musical potential. Of the 100 in each junior high school there would be 50 in the major music program, and 50 in an equivalent program without music. A table of random numbers was to be used to place the students in four classes in each school, and the toss of a coin to determine the program alternative for each pair of classes. The junior high school administration would then program each class within its overall schedule.

#### Preliminary Planning of Music Program

The music program was selected as the talent area for the project because there was an existing program of major music, and an administrative and supervisory structure for the program. The students in the experimental group would be offered a schedule based on the major music program already operating within the junior high school. These students would receive group and individual music instruction at least four periods a week during the regular school day. This instruction was to be broad in scope, including not only the instructional techniques, but all the concomitant skills and knowledges involved in rote reading, sight singing and music theory as well. The intention of the instrumental classes and choral workshops was to teach the children to perform in music and to develop musicianship and appreciation of music.

# Experimental Treatment

In the experimental music program the students were to discover answers to questions such as the following:

What is an instrument? How is it used? What can it do? How do you begin to perform?



In the choral program the students would be taught the technique of vocal delivery, breath control, lip and mouth control and similar skills. In addition, the students would learn notation and the meaning and production of tones, with attention to note values, note meaning and reading, meter signatures, dynamic values, structural values and simple combinations. Sociomusical learning would be concerned with rehearsal discipline, blending and cooperative effort, interest and appreciation. With regard to improving attitudes towards school, the music program was expected to develop desirable values. The students were to be supplied with free instruments and music scores. The nature of the instruction, the decrease in formality, and the individual sessions were planned to enhance motivation towards music, and to provide favorable orientation towards the school situation. The school would offer recognition and reward for the students efforts in music through performances.

## Outcomes to be Evaluated

The research hypothesis was that for junior high school students of high music potential but of low socioeconomic circumstances and with low reading achievement, those students given musical instruction would be significantly superior to students not given musical instruction, in the following areas:

- 1. Academic achievement
- 2. music achievement
- 3. attitudes towards school
- 4. school behavior
- 5. feeling of success
- 6. personality maturity

# Instruments of Evaluation

Some of the instruments of evaluation were already available; others had to be devised. For example, it was planned to include music ratings by teachers and supervisors. This aspect entailed the construction of teacher rating forms related to music achievement and academic progress. Supervisors were to rate the performance of music pupils. The proportion of music project pupils who gained entrance to special music programs and special music high schools would also be used as criteria. Reading and subject matter were to be tested with the following instruments:

- 1. Reading: Metropolitan Achievement Test in Reading
- 2. Mathematics: Iowa Every Pupil Basic Arithmetic Skills
- 3. English: Iowa Every Pupil Test of Language
- 4. Language Usage: Iowa Language Abilities Test



School and social behavior data were to be obtained from reports of attendance and from the students' record cards. Attitude and maturity data would be obtained with instruments such as the California Social Index, and with refinements of the Higher Horizons Scales previously constructed by the Bureau of Educational Research.

# Administration of the Program in the Schools

As was stated above, the study as designed and the study as implemented were somewhat different. The following chapter, Implementation of the Program, will detail these differences.



#### CHAPTER III

### IMPLEMENTATION OF THE PROGRAM

### Introduction

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Chapter II described the design of the Musical Ability Utilization Project as it was initially envisioned. This present chapter will indicate how the actual implementation of the study differed from the design, and why. In addition, this present chapter will discuss the development of specialized instructional materials which were necessitated by operational considerations as well as by changes in the experimental treatment.

# Selection of Schools

The original design of the study called for schools that were representative, that had a sufficient number of non-academic achieving students, that had adequate facilities for the project staff and that had administrators willing to cooperate in the experiment.

In order that the five schools might constitute a representative sample, all special service junior high schools in the city were listed by number of students in each ethnic category for the school year 1964, and the overall average was found. It was hoped that five schools could be found to serve in the project whose average ethnic distribution would closely approximate that of the city. Unfortunately, it was discovered that there were not five such schools. Of the 15 schools that seemed most suitable, a number had to be eliminated because there was not sufficient personnel on the music staff, or not enough room for an additional music program, or an administrative situation that could not comfortably accommodate a research project. Finally five schools were selected that approximated the city-wide ethnic distribution as closely as possible.

The original plan of the study was also modified because of the following circumstances. In the fall of 1964, most New York City junior high schools had a three-year program of seventh, eighth, and ninth grades. However, as part of a plan for achieving integration in the New York City schools, a reorganization was imminent. The junior high schools were to become sixth, seventh and eighth grade schools rather than seventh, eighth, and ninth grade schools. The ninth grade would be transferred to senior high schools.

This organizational change meant that if a project student entered junior high school in the seventh grade he would have only two years of the experimental program. Since it was felt that three years would be a minimum time for the experimental program to have its effect, it was decided that the project would be carried out in junior high schools having the sixth-seventh-eighth grade organization in 1965. Although schools had already been selected, it was necessary to find five other project schools that would fit the conditions of the project. Because



of transitional problems within the division of junior high schools, it became difficult to reach agreement on schools and to obtain permission to institute the music project within the schools. All of this led to compromises, and some of the schools finally selected had inadequacies in facilities and conditions that would present problems for the music project.

The screening test had been developed on a sixth grade population; it now had to be revised for a fifth grade population. As a result, the final test was not available until April, and the screening program had to be carried out in May and June, 1965.

# Test Construction

Music teachers, administrators, and borough coordinators furnished suggestions for a testing procedure that would be appropriate for the project population. At conferences with these specialists the tryout test form and content were selected. The specific items in the test included rhythm imitation, tonal interval imitation, melodic fragment imitation, and singing of a familiar song. The test was prepared and tried out on students in special service schools. The tryouts were held in three different schools with equal numbers of male and female pupils from each class. The classes chosen were within the reading range of the experimental population and were stratified as high, middle and low achievement classes. In the initial tryout, item difficulty and item consistency were checked. An important purpose of the tryout was determination of test conditions, rapport, and the difficulty of achieving valid results in a performance situation.

The next phase of test construction was a tryout preliminary to the final form. The conditions observed in the previous testing sessions were examined in order to improve orienting and testing procedures.

After appropriate statistical techniques had been used to determine discriminating items, the final tryout form of the test was administered to 19 fifth grade students in an elementary school. The tests were simultaneously rated and graded by five judges. One item was changed on the basis of this testing and the final form of the music selection test was prepared.

In the actual testing of over 1,200 students, there were many circumstances in which a period of 10 to 15 minutes per student was not available. However, all of the students were individually tested by a music chairman and from the receiving junior high school and a borough music coordinator. All personnel involved had had orientation and experience with the testing and rating procedures.



I A copy of the music selection test will be found in the appendix.

# Selection of Students

For each project school, the music selection test was scored for all entering sixth grade students who were reading one and a half or more years below the grade norm in reading. The students who scored in the top 55 per cent on the music selection test were chosen as the population pool.

Within each school these students were randomly assigned to one of four groups. The toss of a coin decided the two groups that would take the major music program and be the experimental group, and the two that would be the control students without the music program.

Lists were then sent to the five project schools so that students might be assigned to the proper programs. The project students had to be worked into each school's individual method of programming classes and individuals.

Some of the problems that arose at this point became evident in the fall, after classes had started. In all the schools a considerable number of students who had been selected for the project did not appear for the opening of school. Many of these had transferred to other schools, and some were reported as not traceable through school records. A number of students were not assigned according to the project procedure. An effort was made to correct this situation. In one school, the music teacher in charge of selection chose students according to his own criteria. Several weeks were then put in reassigning students so that the experimental and control groups were about equal in average reading grades. For these and a variety of other reasons the experimental and control students did not fall into the exact categories that had been planned for them.

### Development of Specialized Instructional Materials

Teaching special music courses to students with low academic achievement introduced new and unusual conditions to teachers of music. The unique conditions and objectives of the project required a coordinated special curriculum and the development of special methods and materials.

At the beginning of the second year of the project a full time music specialist was brought into the program to develop these methods and materials. Since the classes were at different levels of progress in the second year of the program, the material was devised to include information that should have been acquired during the first year. As the material was produced, it was presented by the specialist to the music teacher, school by school. Methods of teaching it were discussed and demonstrated. Since the material was created for poor achievers with reading retardation, an attempt was made to keep the language as simple as possible, although musical terminology was kept intact.

In all, ten units of teaching and reference material were developed. These are presented in a separate section of this report.



### Experimental Treatment

The treatment of the experimental and control groups was to have been very clear cut: both groups would take identical junior high school programs except that the experimental group, in addition, would be involved in the major music program. Other variables were to be controlled. Unfortunately, in actual operation, this was not the case; the programs varied widely from school to school, as indicated below:

Junior High School A: The music project pupils were programmed into six classes (two vocal, two string and two wind) containing both experimental pupils and non-project pupils organized heterogeneously by reading grade.

Junior High School B: The experimental pupils were programmed into one vocal class and one string class with some non-project pupils added to each class.

Junior High School C: The experimental classes (one string and one wind) were composed exclusively of experimental pupils.

Junior High School D: Experimental pupils were mixed with non-project pupils in string, wind, and vocal classes.

Junior High School E: The experimental classes (one string and one vocal) were composed exclusively of experimental pupils.

Supervision of the music program was carried on in order to insure that the experimental students would achieve, and would have the feeling of pride in learning music. This supervision included suggestion and orientation in the adjustment of the music course for the project students who were slow learners and presented difficult problems of motivation.

A guideline for the music teachers on the objectives of the project music program was prepared and distributed. The guideline contained material on organization, methods, and details of classroom objectives, activities and suggested materials. Some teacher-made materials were exchanged and special supervisor-prepared materials were distributed and used for planning the program.

In some instances there were direct violations of the experimental treatment. One school, which had been affected by community racial conflict, changed the students' programs and eliminated the major music program. This school was dropped from the project.

In another school, the administration scheduled control students for major art or other major talent programs. Obviously, placing control students in an analogous experimental program destroyed the efficiency of the control groups. In another school all control students were given extra-remedial reading periods for one year.

Under these circumstances there was obviously contamination of the experimental treatment. However, it is necessary to do experimental work under real conditions and to continue a program for enough years to allow the experimental variable to have an affect, if it is to become evident.



#### Summary

The original design for the evaluation of the Musical Abilities Utilization Project had to be modified to meet changes in the implementation of the program.

For example, the project was initially supposed to have operated in grades 7, 8 and 9 of the junior high schools, but organizational changes within the junior high schools resulted in the program's operating in grades 6, 7 and 8 of the junior high schools. Thus, new schools were selected and screening tests administered much later than originally scheduled.

However, appropriate and representative schools were selected and a Musical Potential Test was devised, tried out, and administered to 2,000 students in the fifth grade of the elementary schools that fed the five junior high schools in the project. The students who took this screening test were retarded from  $1\frac{1}{2}$  to 4 years in reading and were from low socioeconomic backgrounds. They were largely Negro and Puerto Rican children. Of the students who took the screening test, those who scored in the top 55 per cent were chosen as the population pool. There were 100 such students in each of the five schools, and these were placed by random assignment into experimental or control classes. Unfortunately, because of organizational and administrative difficulties, there were contaminating factors within the experiment. For example, there were non-project pupils programmed for music with the experimental classes; there were other major talent programs scheduled for the control classes; there was remedial reading instruction scheduled for some of the control classes and in one school there was such a contamination of the experimental variable that the school had to be dropped from the program.

In spite of these difficulties, the experiment was continued, and a full-time music specialist was brought in to develop new methods and materials for the Music Abilities Utilization Program. As the material was produced, it was presented, discussed and demonstrated by the music specialist. This additional material was created especially for the project students and therefore had a low reading difficulty index. All in all it was recognized that there was some contamination of the experimental treatment, but, since investigators must work under existing conditions, the evaluation went forward with such changes as the implementation of the program dictated.



#### CHAPTER IV

RESULTS: ACHIEVEMENT OF STUDENTS

# Introduction

A rationale of the study was that if disadvantaged children who are not doing well in school are found to have ability in a non-academic area, and if that ability is activated and purposefully nurtured, the result will be positive performance in academic areas. Accordingly, disadvantaged children with musical ability were given a suitable music program and compared with similar control students who did not have a music program. The academic areas investigated were reading, arithmetic, language study skills and social study skills. A non-academic area also investigated was musical ability.

The subsequent sections of this chapter present the findings concerning pupil performance in the selected areas previously mentioned. Test results are presented first, teacher ratings second, music ratings last. Comparative test results in the areas of reading (word knowledge and reading comprehension), mathematics (including computation and problem solving) and study skills (in language arts and social studies) are analyzed. Comparative teacher ratings in the fourth-quarter of the eighth-grade for language arts, social studies and mathematics are studied. Teacher ratings of musical ability are also presented and analyzed.

## Reading

To determine program effects upon reading achievement, two studies of comparative pupil performance on the word knowledge and on the reading comprehension parts of the Metropolitan Achievement Test, Advanced Battery, New York City Partial, Form Cm were conducted. The tests were given in April 1968 when the students were in the eighth grade. The experimental students had then been in the program for three years.

The hypotheses tested were these:

- After three years in the program there will be no significant difference between control and experimental mean word knowledge scores as measured by the Metropolitan Test.
- After three years in the program there will be no significant difference between control and experimental mean reading comprehension scores as measured by the Metropolitan Test.

# A. Word Knowledge

A total of 79 experimental students and 83 control students in four project schools were compared. In School A there were 11 experimental and 27 control children. The reduced size of the experimental population



is due to unavailability of scores for nine pupils. In School B there were 21 experimental and 21 control children; in School C there were 27 experimental and 15 control children; in School D there were 20 experimental and 20 control children. A "t" test of the mean reading score differences between the control and the experimental groups was the major statistical technique employed. Test results were compared by school and by total group; grade equivalent scores were used.

Table I presents the results of the "t" tests comparing experimental and control groups on word knowledge mean scores received on the April, 1968 Metropolitan Test.

TABLE I

Comparative Analyses of Control and Experimental Groups on Mean Word Knowledge Grade Equivalent Scores Received on the April, 1968 Metropolitan Tests

School	Group	Number	<u>Mean</u>	Sigma	Mean Diff.	"t"	P
A	Experimental	11	6.55	.83	40	7.5	***
	Control	27	6.12	1.78	.43	<b>.</b> 75	NS
В	Experimental	21	5.20	1.33		1.50	
	Control	21	5.95	1.80	<b>~</b> .75		NS
С	Experimental	27	6.17	1.94	.38	.61	No.
	Control	15	5.79	1.76			NS.
D	Experimental	20	5.74	1.15	25	58	
	Control	20	5.99	1.44	<b></b> 25		NS
Total	Experimental	79	5.85	1.55	13	50	NG.
	Control	83	5.99	1.71			NS

Table I indicates that the "t" test of the difference between the control and the experimental groups on Word Knowledge for the 38 children in School A was not significant. Although the control population exhibited more variability as indicated by the larger sigma value, the mean difference of .43 between groups is most likely a chance factor. For the 42 children in School B the "t" test indicated that the difference of .75 favoring the controls was probably a factor of chance. Again, in the cases of the "t" tests for mean differences between control and experimental groups in both Schools C and D, no significant difference was found. When all experimental and control groups were compared on a total basis regardless of school no significant difference was found.



# B. Reading Comprehension

The same population available for the previous study was used in this study. Again, attention is drawn to the fact that School A had only 11 experimental samples available for study because of the unavailability of scores for nine of the experimental students. A "t" test of the group mean differences in reading comprehension between control and experimental children was performed. Tests of mean differences were made for each school and for the total group; grade equivalent scores were used.

Table 2 presents the results of the "t" tests performed.

TABLE 2

Comparative Analyses of Control and Experimental Groups on Mean Reading Comprehension Grade Equivalent Scores Received on the April, 1968 Met. Tests

Schoo	1 Group	Number	Mean	Sigma	Mean Diff.	iit <sup>ii</sup>	P
A	Experimental	11	8.33	2.16	1.59	2.19	05
	Control	27	6.74	1.91	1,39	2.19	.05
В	Experimental	21	5.67	1.68		1 00	
	Control	21	6.22	1.83	55	-1.00	NS
С	Experimental	27	6.56	1.85	7.6		
	Control	15	5.80	1.78	<b></b> 76	1.28	NS
D	Experimental	20	5.72	1.27	07		
	Control	20	5.99	1.74	<b></b> 27	<b></b> 24	NS
Total	Experimental	79	6.36	1.94			
	Control	83	6.36	1.47	•00	.00	NS

Table 2 indicates that for three of the four school comparisons, no significant differences (NS) were found between control and experimental pupils when examined for mean reading comprehension score differences. The "t" value for School A, however, is 2.19 indicating a significant difference between control and experimental mean reading comprehension scores at the .05 level of confidence. When results for all schools were pooled, no significant differences were found. For school A, it is noted that the sigma value on reading comprehension is 2.16 for the experimental group and 1.91 for the controls. Unlike the extreme difference between control and experimental sigma values for word knowledge (experimental was .83 and control 1.78), the sigma values for both groups in



School A are much closer. Whereas in the case of word knowledge, the experimentals appeared more homogeneous than the controls, in the case of reading comprehension the experimental group for School A is more heterogeneous than the control group. The small number of experimental students in School A is probably a contributing factor to the wide difference in sigma values.

# C. Average Reading Grade

The second secon

Tables 1 and 2 presented the results of each of the two subtests of the reading test. Table 3 presents the results of the "t" tests of the average reading grade scores.

TABLE 3

Comparative Analyses of Control and Experimental Groups on Mean Reading Average Grade Equivalent Scores Received on the April, 1968 Metropolitan Achievement Tests

S <b>c</b> hoo!	1 Group	Number	Mean	Sigma	Mean Diff.	"t"	<u>P</u>
A	Experimental	11	7.48	1.25	1.03	1.80	NC
	Control	27	6.45	1.72	1.03	1.00	ns _
В	Experimental	21	5.47	1.41	<i>C1</i>	1 21	NG.
	Control	21	6.11	1.68	64	1.31	NS
С	Experimental	27	6.39	1.76	.55	.55	Na .
	Control	15	5.83	1.70			NS
D	Experimental	20	5.75	1.06	- 27	<b></b> 66	NC
	Centrol	20	6.02	1.38	27		ns 
Total	Experimental	79	6.14	1.59	01	0/	NC
	Control	83	6.15	1.65	01	04	NS

Table 3 indicates no significant differences between mean control and experimental differences on average grade equivalent reading scores, whether treated in terms of individual schools or in terms of total groups.

# Summary

Disadvantaged children receiving special music instruction because of their musical ability, when compared with comparable controls not receiving such instruction, do not exhibit, when treated as total groups, any



significant difference in mean Reading Comprehension scores as measured by the Metropolitan Achievement Test. This conclusion is also tenable when we examine comparable pairs in schools, except in the case of School A. In School A it was found that there was a statistically significant difference between mean experimental and control grade equivalent scores in reading comprehension favoring the experimental group. The null hypothesis is accepted for all analyses. The experimental group is not different from the control group in reading achievement on the Metropolitan Reading Test.

#### Arithmetic

To determine effects of the program upon the performance in arithmetic of the experimental group, two separate studies of performance on the arithmetic computation and problem solving parts of the Metropolitan Achievement Test, Advanced Battery, New York City Partial, Form Cm were conducted. These were given in April, 1968 while the students were in 8th grade. The experimental group had been in the program three years.

The hypotheses tested were these:

- 1. After three years in the program there will be no significant difference between control and experimental mean computation scores as measured by the Metropolitan Achievement Test.
- 2. After three years in the program there will be no significant difference between control and experimental mean problem solving and concept scores as measured by the Metropolitan Test.

# A. Computation

A total of 87 experimental and 82 control children in four project schools were compared. In School A, 20 experimental students were available for analysis, since arithmetic scores were available for the nine experimental students for whom reading scores were unavailable. The schools are the same as those in the reading study. A "t" test of the group mean arithmetic score differences between control and experimental children was the major statistical technique employed. Tests were made of comparative mean differences by school and by total group; grade equivalent scores were used.

Table 4 presents the results of the "t" tests comparing experimental and control groups on mean word knowledge.



TABLE 4

Comparative Analyses of Control and Experimental Groups on Mean Arithmetic Computation Grade Equivalent Scores Received on the April, 1968 Met. Test

Scho	ol Group	Number	Mean	Sigma	Mean Diff.	!!t"	P	
A	Experimental	20	5.39	.70	50	0.01	٥٣	
•	Control	27	5.98	.95	<b>~.</b> 59	-2.31	.05	
В	Experimental	21	5.53	.87	F0	2.10	٥٢	
	Control	21	6.11	.83	<b></b> 58	-2.18	.05	
С	Experimental	26	6.19	.20	.65	1.97		25
	Control	14	5.54	.23			.05	
D	Experimental	20	6.68	1.06			•••	
	Control	20	6.54	1.30	.14	.38	ns	
Tota	l Experimental	87	5.96	1.07	11	70		
	Control	82	6.07	1.05	11	<del>-</del> .70	ns	

Table 4 indicates that the "t" test of the difference between control and experimental mean arithmetic computation scores for the total population revealed no significant difference between groups. Analysis by school, however, revealed that in the cases of School A and School B there was a significant mean difference favoring controls, rather than experimentals. On the other hand, in the case of School C, a significant difference was found favoring experimentals. Unlike the previous three schools, the "t" test for School D revealed no significant difference between groups.

# Problem Solving and Concepts

The same population for Computation was used in this study. Again, the "t" test was used to examine group mean differences in Arithmetic Problem Solving and Concepts. Tests of mean differences were made for each school and for the total group; grade equivalent scores were used.

Table 5 presents the results of the "t" tests comparing experimental and control groups on mean Arithmetic Problem Solving and Concepts scores.



TABLE 5

Comparative Analyses of Control and Experimental Groups on Mean Arithmetic Problem Solving and Concepts Scores Received on the April, 1968 Met. Tests

Schoo	1 Group	Number	Mean	Sigma	Mean Diff.	"t"	P
A	Experimental	20	5.51	.85	19	<b></b> 56	NS
	Control	27	5.70	1.28	19	50	143
В	Experimental	21	5.06	.83	60		
	Control	21	5.66	.88	60	-2.25	.05
С	Experimental	26	5.63	.86	0.1		N.O.
	Control	14	5.43	.90	.21	•69	NS
D	Experimental	20	6.59	1.33		. 7.	
	Control	20	5.78	1.55	.81	1.71	ns
Total	Experimental	87	5.69	1.12	00	10	NO
	Control	82	5.66	1.22	.02	.12	NS

Table 5 indicates that there is no significant difference between the control group and the experimental group when group mean scores are analyzed on a total basis. When group mean scores are analyzed school by school, it is evident that in only one case is there a significant difference, a difference favoring the control group.

# C. Average Arithmetic

Tables 4 and 5 presented the results of the two arithmetic subtests. The "t" test was also applied to determine the significance of differences obtained by averaging the two subtests. Table 6 presents the results for average arithmetic.



TABLE 6

Comparative Analyses of Control and Experimental Groups on Mean Arithmetic Average Grade Equivalent Scores Received on the April 1968 Metropolitan Achievement Test

School	Group	Number	<u>Mean</u>	Sigma	Mean Diff.	"+"	P
A	Experimental	20	5.47	.62	<b></b> 40	<del>-</del> 1.45	NS
	Control	27	5.87	1.09	40	-1.43	N3
В	Experimental		0.07				
	Control	21	5.91	.80	60	-2.37	•05
С	Experimental	26	5.94	.90	.44	1.48	27.0
	Control	14	5.50	.83			NS
D	Experimental	20	6.56	1.09		1.21	\ <u>'</u>
	Control	20	6.17	1.37	<b>.</b> 49		ns
Total	Experimental	87	5.85	1.01		0.7	<b>NO</b>
	Control	82	5.89	1.03	04	<b></b> 27	ns

Table 6 indicates a significant difference favoring the controls in School B; no significant differences were found between groups in any of the other schools or when analyzed for total groups.

## D. Summary

Analysis by school of differences between groups on the Arithmetic Computations part of the Metropolitan Achievement Test revealed an inconsistent pattern. Whereas two schools indicated statistically significant differences favoring the control group, one other school indicated such a difference favoring the experimental group. The fourth school showed no significant difference between groups. Analysis by total group indicated no significant difference between groups. The null hypothesis is accepted concerning total group analysis and analysis of School D results. It is rejected in the cases of Schools A, B, and C. Here, however, two of the differences favor the control group and one the experimental group.



Analysis revealed no significant difference between the total experimental and the total control group in Arithmetic Problem Solving and Concepts. Analysis performed school by school reveals a significant difference only for School B, in favor of the control group.

Analysis of average arithmetic scores indicates no positive program effects in this area. The tendency  $\bar{ror}$  significant differences to favor control groups indicates that factors outside the experiment may have been influencing arithmetic results.

# Study Skills

To determine the effects of the program on achievement in study skills by the experimental group, two studies were made of comparative pupil performance on the language study and social study skills parts of the Metropolitan Achievement Test, Advanced Battery, New York City Partial, Form Cm. This test was administered in April, 1968 while the children were in 8th grade. The experimental group had been in the program for three years. The hypotheses tested were these:

- After three years in the program there will be no significant difference between control and experimental mean Language Study scores as measured by the Metropolitan Test.
- After three years in the program there will be no significant difference between control and experimental mean Social Studies scores as measured by the Metropolitan Test.

# A. Language Skills

A total of 58 experimental and 63 control children in three project schools were compared. Only Schools A, B and D were used in this study; School C was omitted because study skills scores were not available. This accounts for the reduced size of the sample population when compared with the previous studies of reading and arithmetic. Analyses of mean differences by schools and by total group was performed by means of the "t" test. Grade Equivalent scores were used.

Table 7 presents the results of the "t" tests comparing the experimental and control groups on mean Language Study scores received in April, 1968 on the Metropolitan Test.



TABLE 7

Comparative Analyses of Control and Experimental Groups on Mean Language Study Skills Grade Equivalent Scores Received on the April, 1968 Met. Test

School	Group	Number	Mean	Sigma	Mean Diff.	"t"	P
A	Experimental	20	6.08	1.61	_ 55	- 03	MO
	Control	27	6.63	2.23	55	93	ns 
В	Experimental	19	5.32	1.95	-1.26	-2.23	•05
	Control	18	6.57	1.29	-1.20		.05
D	Experimental	19	6.68	2.38	63	80	NS
	-	18	7.31	2.31		00	
Total	Experimental	58	6.03	2.08	<b>-</b> .78	-2.07	.05
	Control	63	6.81	2.06	/0	-2.07	

Table 7 indicates that in all comparative analyses the mean difference favored the control group, but this difference was significant in only two cases. For School B there is a significant difference in Language Study favoring the control group. For Schools A and D the apparent superiority of the control group is not supported by the "t" test; there is no significant difference between experimental and control groups in mean Language Study scores for these groups. When groups are examined for mean differences between total populations there is a significant difference favoring the control group. For Schools A and D the null hypotheses is accepted. Experimental children, whether examined by school or by total group classifications, do not exhibit facility in language study skills as measured by the Metropolitan Test to a degree that would justify concluding superior ability in this aspect when compared to controls. The evidence suggests either no true difference between groups or a difference favoring the controls.

#### B. Social Studies Skills

The population examined in this study was the same as that for Language Study Skills, namely, Schools A, B, and D. Analyses of mean differences in grade equivalent scores were performed by means of a "t" test.

Table 8 presents the results of the "t" tests of differences between the experimental and control groups, by school and by total group.



TABLE 8

Comparative Analyses of Control and Experimental Groups on Mean Social Studies Skills Grade Equivalent Scores Received on the April, 1968 Met. Test

Schoo1	Group	Number	Mean	Sigma	Mean Diff.	"t"	<u>P</u>
A	Experimental	20	6.23	1.55	06	11	NS
	Control	27	6.28	1.91	00	<b></b> 11	671
В	Experimental	19	6.30	1.76	.49	.91	NS
	Control	18	5.81	1.40	•47	•,7±	
D	Experimental	19	6.69	2.42	.19	.25	NS
	Control	18	6.51	2.00			
Total	Experimental	58	6.40	1.05	.19	•53	NS
	Control	63	6.21	1.83	•=-	,,,,	

Table 8 indicates that no statistical significant difference was found for any of the schools or for the total groups.

# C. Average Study Skills

The "t" test was also applied to the results obtained by averaging the two study skills subtest scores. Table 9 presents the results for the average score obtained from those two components.



TABLE 9

Comparative Analyses of Control and Experimental Groups on Average Grade Equivalent Scores for the Combined Language and Social Studies Skills Parts, of the April, 1968 Met. Test

Schoo	1 Group	Number	Mean	Sigma	Mean Diff.	"t"	P
A	Experimental	20	6.19	1.41	20		wo
	Control	27	6.48	1.92	30	<b></b> 57	NS
В	Experimental	19	5.82	1.66	<b></b> 42	<b></b> 89	NS
	Control	18	6.24	1.01	-,42	09	
D	Experimental	19	6.71	2.00	23	~.34	NS
	Control	18	6.94	1.94		34	
Total	Experimental	58	6.24	1.74	31	96	NS
	Control	63	6.54	1.74	31	90	NO

Table 9 indicates higher mean scores for control groups than for experimentals, but "t" test analyses reveal that none of these differences are significant. This finding is significant whether we examine group mean differences by school or by total group.

### D. Summary

No evidence was found to support the hypotheses that participation in the special music program would improve achievement in either language study skills or social studies skills as measured by the Metropolitan Achievement Test, Advanced Battery, whether the data was analyzed separately for each subtest, or as an average of the two subtests. The null hypotheses are therefore accepted.

### Teacher Ratings

The previous studies examined comparative student achievement as measured by standardized tests. Student performance in achievement areas as rated by teachers was also compared. The purpose of the study was to determine whether or not the teacher final ratings on report cards corroborated the findings of the standardized tests. Language Arts, Mathematics, and Social Studies grades were used.



The following hypothesis was tested:

There is no significant relationship between experimental-control group classification and nominal categories of final grades.

Teachers' final grades were obtained for all the schools in the study. The student population differs from that in the standardized tests because teacher grades were not available for all students. The grades used in these analyses were the eighth grade, fourth quarter marks, entered at the end of the school year. Since report card marks ranged along a percentage continuum a three-part classification was set up to aid in analysis:

Passing - 70 or above Just passing - 65 to 69 Failing - 64 or below

These classifications were recorded for both the experimental and control groups. Chi-square values were computed and the significance of the relationship between group classification (control or experimental) and the categories of final grades (passing, just passing, failing) was determined by reference to tables for the appropriate degrees of freedom. The control and experimental groups were compared for performance in Language Arts, Mathematics, Social Studies and Final Grade Average as assigned by teachers.

The number of control and experimental children used in these studies differs from those in previous studies because final grades were not available for all students. This not only raises questions of parameter, but also makes it necessary to interpret these findings with caution, particularly because cell entries are zero, or small, in some cases, thereby affecting chi-square.

## A. Language Arts

Table 10 presents the results of the chi-square analysis made of teacher ratings of the control and experimental groups in Language Arts at the end of eighth grade. Four analyses are reported, one for each of the schools.



TABLE 10

Chi-square Values for Study of Relationship Between Group Classification and Nominal Categories of Final Grades in Language Arts

School	Group	Number Passing	Number Just Passing	Number Failing	Chi- Square	P
A	Experimental	3	6	2	2 70	N/C
	Control	3	15	12	2.79	NS
В	Experimental	5	10	7		
	Control	8	3	0	8.77 Signi	ficant.
С	Experimental	18	7	2		,,,,,,
	Control	9	5	1	.26	NS
D	Experiment al	13	4	3		
	Control	13	4	0	2.78	NS ·

Table 10 indicates that in three schools (A, C, and D) no significant relationship was found between group classification and final teacher ratings in Language Arts. In one case (School B) a significant relationship was found favoring the control group. Examination of the distributions for control and experimental children in this case indicate that the significance is attributable to the frequency of cell entries in the "Failing" and "Just Passing" nominal categories.

## B. Mathematics

Table 11 presents the results of the chi-square analysis made of teachers' ratings of the experimental and control groups in mathematics at the end of eighth grade. An analysis is reported for each of the four schools.



TABLE 11

Chi-Square Values for Study of Relationship Between Group Classification and
Nominal Categories of Final Grades in 8th Year Mathematics

Schoo1	Group	Number Passing	Number Just Passing	Number Failing	Chi- Sguare	P
A	Experimental	5	5	3		270
	Control	8	11	11	1.31	NS
В	Experimental	6	7	11	0.46	
	Control	5	6	0	8.46	Significant
С	Experimental	19	7	1	1.00	NO
	Control	11	2	2	1.98	NS
D	- Experimental	10	9	1		
	Control	11	6	0	1.41	NS

Table 11 indicates that in three schools (A, B, and D) no significant relationship was found between group classification and nominal categories of final grade teacher ratings in mathematics. In one case, that of School B, a significant relationship was found between group classification and final grade ratings. Examination of the distributions for control and experimental children in this case indicates that the significance is attributable to the frequency of cell entries in the "Failing" and "Just Passing" nominal categories. The difference favored the control group.

## C. Social Studies

Table 12 presents the results of the chi-square analysis made of control and experimental groups teachers' ratings in social studies at the end of eighth grade. An analysis is reported for each school.



TABLE 12

Chi-Square Values for Study of Relationship Between Group Classification and
Nominal Categories of Final Grades in Social Studies

School_		Number Passing	Number Just Passing	Number Failing	Chi- Square	P
A	Experimental	. 5	4	2		
	Control	8	16	6	1.38	NS
В	Experimental	. 1	13	8	15.00	
	Control	7	4	0	15.29	Significant
С	Experimental	. 11	13	3	2 2/	No
	Control	10	3	2	3.34	NS
D	Experimental	. 12	8	0		1111-
	Control	11	. 6	0	not a	pplicable

Table 12 indicates no significant relationship between teacher grades in social studies and group classification for Schools A and C; For School D, no analysis was computed because of the "O" entries, but inspection reveals no important difference. A significant relationship was found for School B, again favoring the control group.

# D. Summary

Some significant differences between experimental and control groups were found when teachers' final report card grades were analyzed. In Schools A, C, and D no significant differences were found between the experimental and control groups, for Language Arts, Mathematics, and Social Studies. For School B a significant difference was found between the experimental and control groups. This difference, however, favored the control group, for whom the final report card grades given by teachers were significantly higher in the three subject matter areas.

The same relationship was found when the averages of the three grades were utilized. In School B alone the averages of the final grades for the control group were significantly higher than those for the experimental group. For the other schools there were no significant differences between groups.



# E. Average Ratings

Table 13 presents the results of the chi-square analysis made of the averages of the teacher ratings for the control and experimental groups. Four analyses are reported; one for each school.

TABLE 13

Chi-Square Values for Study of Relationship Between Group Classification and

Nominal Categories of Average Final Grades

School	Group	Number Passing	Number Just Passing	Number Failing	Chi- Square	P
A	Experimental	6	3	2		
	Control	7	11	12	3.80	NS
В	Experimental	2	10	10	0.5 / 5	
	Control	10	1	0	21.41	Significant
С	Experimental	20	6	2		
	Control	9	2	3	1.92	ns
D	Experimental	12	6	1	0.00	
	Contro1	15	3	0	3.89	NS

Table 13 indicates no significant relationship between teacher grades and group classification for Schools A, C, and D. For School B, a significant relationship was found, favoring the controls. In the latter case, ten "experimental" students failed, but no "controls" failed; ten "experimentals" had "just passing" grades, but only one "control" was so classified; two "experimentals" passed, but ten "controls" passed.

### F. Music Ratings

To study music ability among experimental children teacher ratings were used. To secure these ratings the TEACHER'S RATING OF MUSICAL ABILITY was developed. Each child in the experimental group of 87 children distributed among the four project schools was rated by his music teacher on the form. (See Appendix B).



THE TEACHER'S RATING OF MUSICAL ABILITY scale consisted of ten items. The first eight items concerned aspects of musical ability and class participation; the last two items were general ratings. The first eight items concerned specific technical aspects of musical ability, such as pitch discrimination. These eight items served to create a basis for judgment on the part of the rating music teacher. Item 9 and 10 were the criterion items, devised to indicate the students status in musical ability. Item 9 requested music teachers to rate the children in terms of their music ability when compared through teacher judgment to students in the school who were non-project participants but of similar academic ability. Teachers were reminded that these project children were one to three years behind in reading. Item 10 requested the teacher to rate the music ability of the children in terms of their ability when compared through teacher judgment to students who also took music and were of the usual academic ability in the same grade in that particular school. The rating scale used for each of the 10 items is presented below:

1	2	3	4	5
among	below		above	among the
the worst	average	average	average	bes t

Students were rated while they were in the last year of the project, that is, the eighth grade. Only experimental students were rated; comparative groups were those indicated in items 9 and 10, namely, non-project students of similar academic retardation, and non-project students of the normal school population.

Table 14 presents results of this survey by school and by summary of teacher ratings for items 9 and 10.

TABLE 14

Teacher's Ratings of Musical Ability

Item 9 and Item 10

		Item	9 Rat	ing			Item	10 Ra	ating	
School	1	2	3	4	5	 1	2	3	4	5
A	0	3	11	3	3	2	4	12	2	0
В	6	6	2	5	1	8	6	5	0	1
С	5	0	9	9	5	9	2	4	7	6
D	3	2	7	1	6	5	2	5	4	3
TOTAL	14	11	29	18	15	24	14	26	13	10



The findings of item 9 indicate that at Schools A, C, and D, more experimental pupils were rated average or above in music ability as compared to other music students with similar low reading ability, whereas at School B, twelve students of twenty were rated below average or among the worst in musical ability.

The teacher's ratings for item 10 show that at Schools A, C, and D, a majority of experimental pupils were rated average or above in musical ability when compared to the normal school population, whereas at School B, more experimental pupils were rated below average or among the worst.

For all the schools combined, item 9 indicates that sixty-two experimental pupils were rated average or above, while only twenty-five students were scored below average. The teacher's ratings of item 10 for the combined schools show that forty-nine experimental pupils were rated average or better in musical ability, while thirty-eight experimental students were rated below average as compared to the normal school population.



#### CHAPTER V

#### RESULTS FOR STUDENT BEHAVIOR AND ATTITUDES

### Introduction

Among the outcome sought by the Musical Ability Utilization Project were changes in student school behavior, student attitudes towards school, student attitudes in general, and student attendance patterns. To obtain information about the students' behavior, a questionnaire was developed and administered by the evaluation staff. Information concerning student attitudes towards school was gathered by means of a questionnaire completed by the appropriate teacher. To collect data about students' attitudes in general, interviews were conducted with them. Data on attendance patterns, absenteeism and lateness were obtained from student record cards and official reports.

#### Procedures

In comparing experimental and control student groups on attitudes and behavior, "t" tests of differences on ratings given by teachers were examined. Interview data are reported in terms of a content analysis of the responses students made to the 27 items of the interview schedule. Attendance and lateness patterns were examined through chi-square analysis.

## Teacher Ratings of Student Behavior

To obtain ratings for a comparative analysis of control and experimental pupil behavior in school, the STUDENT SCHOOL BEHAVIOR FORM was devised. (See Appendix). The teacher was asked to provide ratings for five items of behavior and a general rating of behavior. Four categorical definitions of behavior patterns were described and rated on a scale ranging from "1" to "7". The scale ranged from "Poor Behavior" to "Excellent Behavior."

The same populations of pupils and schools studied in the achievement areas were examined in the area of student behavior. Three separate analyses are represented in the following tables. The first analysis represents a comparison of groups in terms of the teachers' general ratings of the students. The second analysis is based upon a comparison of the teachers' average rating for the five items of behavior, exclusive of the general rating. The third analysis represents a comparison of the teachers' average rating when the general rating and the ratings for each of the five items are combined.

Table 15 presents comparative data on teachers' estimates of students' general behavior.



TABLE 15

A Comparative Analysis of Teacher Ratings of Student Behavior Based upon General Behavior Rating

School	Group	N	Mean	Sigma	Mean Diff.	"t"	P
A	Experimental	21	4.99	1.57	03	<b>.</b> 06	ns
	Control	32	5.01	1.50	03	.00	
В	Experimental	22	4.37	.66	65	2.33	.05
	Control	19	5,03	1.07	03	2.33	.03
С	Experimental	28	5.22	1.04	1.01	2,22	.05
	Control	14	4.21	1.83	1.01	2.22	
D	Experimental	21	5.40	1.49	EO.	1.26	NC.
	Control	20	5.91	.89	<b></b> 50	1.20	ns

Table 15 indicates that the teachers rated the control pupils as being significantly better behaved than the experimental pupils at School C, whereas at School B the experimental pupils were rated significantly more favorably. These differences were significant at the .05 level. At the two remaining schools A and D, the differences between the experimental and control pupils were not significant.

Table 16 presents the results of comparative analyses concerning the same population in terms of an average of ratings received on the five specific items of the scale. (See Appendix)



TABLE 16

A Comparative Analysis of Teacher Ratings of Student Behavior in Terms of the Average of Five Items Rated

School	Group	N	Mean	Sigma	Mean Diff.	<u>"t"</u>	P
A	Experimental	21	5.95	1.32	20	0/	***
	Control	32	5.62	1.20	•33	•94	ns
В	Experimental	22	4.99	•74	13	.38	NO.
	Control	19	5.12	1.34	13	.38	NS
С	Experimental	28	5.80	.92	00		
	Control	14	4.87	1.56	.93	2.37	•05
D	Experimental	21	5.93	1.08			
	Control	20	6.39	•57	<b></b> 46	1.64	NS

Table 16 indicates that at School C the teachers rated the experimental pupils more favorably than they rated the control pupils. The "t" value of 2.37 was significant at the .05 level. At the remaining three schools, the teachers tended to rate the behavior of the experimental and control pupils as equally good. Any of these mean differences are to be attributed to chance since none of the "t" values are significant.

Table 17 presents the results of comparative analyses of the groups in terms of an average of both the general rating item and the five items of the scale. In essence, this average is computed from six items rated; the five scale items and the overall item.



TABLE 17

A Comparative Analysis of Teacher Ratings of Student
Behavior in Terms of all Six Items on the Form

School	Group	N	Mean	Sigma	Mean Diff.	"t"	P
A	Experimental	21	5.49	1.24	1.6	۸.۸	MC
	Control	32	5.33	1.34	.16	•44	ns
В	Experimental	22	4.70	.64	40	1.34	NC
	Control	19	5.10	1.19	<b></b> 40	1.34	ns 
С	Experimental	28	5.58	.93	06	2 26	05
	Control	14	4.61	1.76	<b>.</b> 96	2,26	.05
D	Experimental	21	5.73	1.28	4.0	1.00	<u></u>
	Control	20	6.15	.69	42	1.28	NS

Table 17 reveals that, when the two measures are averaged, the teachers at School C rated the experimental pupils as better behaved than the control pupils. The "t" value of 2.26 indicates that the difference is not due to chance factors. Of the three remaining schools, the differences can probably be attributed to chance since none of the "t" values were significant.

Student behavior as rated by teachers on the STUDENT SCHOOL BEHAVIOR FORM indicated that generally there was no significant difference between control and experimental students, except in the case of School C. There, a difference was found favoring the experimental group. This finding was consistent for all three treatments of the data.

### Teacher Rating of Student Attitudes

To obtain ratings for a comparative analysis of the attitudes of the control and experimental groups towards school, the STUDENT ATTITUDE TOWARD EDUCATION FORM was devised. (See Appendix). The teacher was asked to provide ratings for five separate items of attitude and for general attitude. Four categorical definitions of attitudes were described on a scale ranging from 1 to 7. The definitions ranged from "Usually Poor Attitude" to "Usually Excellent Attitude."

Three separate analyses are presented in tables 18, 19 and 20. Table 18 presents a comparison of the two groups in terms of the teachers' general ratings of the students.



TABLE 18

Comparative Analysis of the Teachers Ratings of Student Attitudes toward Education upon the General Item on the Form

School	Group	N	Mean	Sigma	Mean Diff.	"t"	<u>P</u>
A	Experimental	21	4.81	1.60	•77	1.88	NS
	Control	30	4.04	1.25	•//	1.00	
В	Experimental	21	3.88	1.07	-1.01	2.81	.01
	Control	18	4.89	1.12	-1.01	2.01	
С	Experimental	27	4.73	1.11	<b>.</b> 87	1.79	NS
	Control	14	3.86	1.93	.07	1.//	
D	Experimental	11	5.19	1.39	•77	1.39	NS
	Control	12	4.42	1.33	•//	1.39	No

Table 18 indicates that there was no significant difference between teachers' ratings of attitudes for the experimental and the control group, except at School C. At School C, the control group was rated significantly more positive than the experimental group as the "t" value of 2.81 indicates.

Table 19 represents a comparison of the teachers' average rating for the five items of attitude, exclusive of the general rating.



TABLE 19

Comparative Analysis of the Teachers' Ratings of Student Attitudes toward Education Based upon the Average of Five Items

School	Group	N	Mean	Sigma	Mean Diff.	"t"	P
A	Experimental	21	5.25	1.44	06	2.48	01
•	Control	30	4.29	1.25	.96	2.48	.01
В	Experimental	21	3.80	1.10	20	2 27	05
	Control	17	4.63	1.33	<b></b> 83	2.07	.05
С	Experimental	27	4.77	1.34			
	Control	14	3.99	1.67	•77	1.57	ns ————
D	Experimental	11	5.06	1.81		1.26	NS
	Control	12	4.19	1.35	.87	1.40	NO

Table 19 indicates that at School A, the experimental group was rated significantly higher than the control group, as the "t" value of 2.48 indicates.

At School B the control group was rated significantly higher than the experimental group. The "t" value of 2.07 indicates that the result was not due to chance factors. At the remaining two schools the teacher did not rate the experimental and control groups differently.

Table 20 represents a comparison of the teachers' average ratings when the general rating and the ratings for each of the five items are combined.



TABLE 20

Comparative Analysis of the Teachers Ratings of Student Attitudes toward Education Based upon the Average of Six Items

School	Group	<u>N</u>	<u>Mean</u>	Sigma	Mean Diff.	"t"	<u>P</u>
A	Experimental	21	4.92	1.41	72	1 00	NO
	Control	30	4.19	1.21	.73	1.93	NS
В	Experimental	21	3.86	1.07	<b></b> 97	2.58	.01
	Control	17	4.83	1.19			.01
С	Experimental	27	4.77	1.19	.82	1.70	NS
	Control	14	3.96	1.78	•••		
D	Experimental	11	5.13	1.56	.82	1.36	NS
	Control	12	4.31	1.18	,02	1.50	

Table 20 indicates that when general and specific ratings (Tables 18 and 19) are averaged, the teachers rated the groups as significantly different at School B only. In School B the control pupils were rated higher as indicated by the "t" value of 2.58. At the remaining three schools, although mean differences existed between the experimental and control groups, these differences were probably due to chance since none of the "t" values were significant.

#### Summary

The study indicates that for the most part, the program did not exert a positive effect upon the attitudes of the experimental group as indicated by teacher ratings of the two groups. General ratings by teachers produced no difference between the groups in three of the schools. A significant difference favoring the control pupils was found in the fourth school. When the same groups were compared upon an average of five items of the scale, it was found that in only one school was there a difference favoring the experimental students; in the other three schools there were either no significant mean differences or a difference favoring the control students. When the same groups were compared by means of an average of all six items, it was found that there were no significant differences favoring the experimental students. The only significant difference found favored the control students.



## The Interview Schedule

In order to obtain additional information about the participating students, individual pupils were interviewed according to a pre-arranged interview guide. (See Appendix). Interviews were completed with 22 students in the experimental group and 24 students in the control group. The 27 questions on the interview guide were grouped into eight general areas, as follows:

Residence (Question 4)
Motivation, desire (Question 1)
Aspiration or vocational ambition (Question 2)
Self-concept (Questions 10, 11)
Control of destiny (Questions 12, 19, 21)
Attitudes towards school (Questions 3, 5-9, 20, 22)
Attitudes and preferences for school subjects (Questions 13-18)
Attitudes towards non-academic activities (Questions 23-26)

- A. Residence: Of the 46 pupils interviewed (22 experimental and 24 control) 18 experimental and 19 control students were born in New York City and remained in the same school district while attending both elementary school and junior high school.
- B. Motivation: When pupils were asked what they liked to do most in or out of school, 7 students in the experimental group mentioned participation in sports, 4 mentioned reading and 3 mentioned music. In the control group, 10 mentioned participation in sports and 3 mentioned reading. The other responses were scattered among the remaining categories.
- C. Vocational Aspiration: In the area of vocational aspiration, 6 of the experimental group mentioned medicine, 5 mentioned business and the remainder scattered their responses. In the control group, 4 students said they would like to be some kind of repair man. Three control pupils wanted to be musicians and 3 others wanted to enter the business field.
- <u>D. Self-concept:</u> Concerning the pupil's view of himself, it was found that some pupils gave responses concerning their abilities and others mentioned traits of personality.

The ability type of response contained such ideas, as "I'm good in school subjects and sports", "I get good marks", "I'm smart", "I have hobbies." Examples of responses describing personality traits-were "I'm imaginative", "I'm proud", "I get along with people", "I think a lot." Responses concerning ability were given by 7 experimental students and 5 control students. Responses describing personality traits were given by all experimental students and 11 control students.

If we look at the students view of himself in relationship to others, we find that, of the experimental students, 6 said they were better than average, 15 mentioned they were average, and one said he was below average. Of the control pupils, 4 thought they were better than average, 14 thought they were average and 6 thought they were below average. I: is apparent that the responses of experimental and control students concerning self-concept are similar. When asked, "Do you think you would do better in school if the teachers wouldn't go so fast?", 10 experimental pupils and 15 control pupils said "yes."



When asked, "Do you ever get the feeling that just when you are getting ahead something comes along to stop you?", eight experimental pupils and 13 control pupils responded "yes." Eleven experimental pupils and four control pupils said "sometimes, while two experimental and seven control students said "no."

When asked "Do you think that good breaks are more important than hard work for getting ahead?", 18 experimental students and 19 control students felt that hard work was more important.

E. Attitude toward School: In response to questions concerning attitude toward school, 22 experimental pupils and 21 control pupils indicated that school could help them to get what they want from life. When the students were asked, "What do you like most about school?", nine experimental and five control students responded "Specific subjects," while six experimental and six control pupils responded, "School Work." When the pupils were asked "What do you like least about school?", six experimental pupils and three control pupils mentioned "Classmates", while three experimental and seven control students stated specific dislike of teachers.

When the pupils were asked, "How do you feel about going to school?", the experimental and control pupils responded in a basically similar manner. While the students may not want to go to school, they realize that school is a necessary tool for success in life.

When students were asked for opinions about junior high school versus elementary school, 20 in each group preferred the junior high school. The main reason given was the change of classes.

When asked "Do you have the feeling that you really belong to the school?", 20 experimental and 23 control students gave positive responses.

- F. School Subject Preferences: When asked about preferences for school subjects, both experimental and control pupils preferred subjects such as mathematics, science, social studies, and English. In general, both experimental and control students felt that foreign language and social studies class periods seemed too long. Although the students found these classes burdensome, when faced with the question of dropping these classes, ll experimental and 14 control pupils stated they definitely would not.
- G. Attitude toward Non-academic Activities: The extra-curricular activity most frequently mentioned by experimental students was participation in athletics, followed by music, art and drama. The control pupils most frequently mentioned athletics, then art, then music and drama. When the pupils were asked "Are you doing any of these things now?", 13 experimental and 12 control pupils answered affirmatively. Both groups of students said they would feel bad if they were not able to continue these activities and that they would try to improve their grades if necessary in order to maintain and continue the activities.



#### H. Summary

All the students questioned, both those in the experimental and in the control group, were those who had originally been identified as showing music aptitude. These students were generally said to be interested in "the arts." Music as an art contains aspects of the academic curriculum involving reading, symbol recognition, performance, background history, and theory. Presented properly, each of the varied arts includes subject areas that can be projected academically and that can develop the basic academic meanings of reading, writing and arithmetic. This is supported by the fact that students indicated that they would try to improve their grades, if necessary, if allowed to continue to participate in these art activities.

The pupils in the experimental group enjoyed the music program and were in favor of its continuance into high school. Most of them felt the music program as such was good, and needed no specific changes.

A feeling of accomplishment in music was expressed by 19 of the experimental students. Of these, 11 felt that being in the program had made a difference in their other school work and 17 felt more important as a result of the music program, while 13 students mentioned that they seemed more important to their friends.

In summary, it can be stated with reasonable certainty that the Musical Abilities Utilization Program has shown itself to be a positive factor in fostering among the students an improved self concept, better peer relations and stimulation to study other academic subjects.

#### Attendance and Lateness

For control and experimental eighth grade students, comparative attendance records were reviewed for the school year ending in June, 1968. Absenteeism and lateness was classified for each group according to the following nominal categories:

Absenteeism	Lateness			
0-9 days absent 10-15 days absent	0=9 times late 10-15 times late			
16 or more days absent	16 or more times late			

A review of the records provided the data for entry in these classifications. The chi-square test for significant relationship was performed for groups, and the nominal categories studied for relationship between group classification and lateness patterns, and for group classification and attendance patterns.



Table 21 presents the chi-square values determined for the comparative analyses made for each of the four schools:

TABLE 21

Chi-square Tests for Significant Relationships Between Group Classification and Attendance Patterns in Four Project Schools

		DAYS	ABSENT			
School	Group	<u>0-9</u>	10-1	<u> 16+</u>	Chi-square	<u> </u>
A	Experimental	9	4	8	* 00	220
	Control	8	5	17	1.88	ns
В	Experimental	4	1	3	07	27/7
	Control	6	2	7	•07	ns
С	Experimental	8	2	13	4 02	NC
	Control	12	4	6	4.02	ns
D .	Experimental	3	5	19	40	NG
	Control	2	4	9	.49	ns 

The data presented in Table 21 indicate that in none of the four analyses was a significant relationship found between control and experimental groupings and attendance patterns. The number of absences and the three categories of such numbers used here show similar patterns for control and experimental groups.

Table 22 presents the chi-square values determined for the comparative analyses made for each of the four schools.



TABLE 22

Chi-square Tests for Significant Relationship Between Group Classification and Lateness Patterns in Four Project Schools

School	Group	<u>0<b>-</b>9</u>	10-15	<u>16+</u>	Chi-squar	<u> P</u>	
A	Exper <b>iment</b> al	19	1	1	. or	Significant	
	Control	17	5	8	6.85		
В	Experimental	2	1	7	3.95	NS	
	Control	9	1	5		110	
С	Experimental	8	4	11	8.29	Significant	
	Control	17	1	4	0.29	DIGHTALCAND	
D	Experimental	26	1	0	8.37	Significant	
	Control	10	1	4	0.37	Pignificant	

The data in Table 22 indicate three significant chi-square values. Only in the case of School B was the relationship non-significant. In School A the significant relationship favoring experimental students is most likely attributable to the relatively large number of control students who were late 16 or more times. In School D the results again favor the experimental students who were late only a few times. In School C the difference favors the control students.

### Summary

The evidence indicated in these tables concerning absenteeism and lateness indicates no significant difference between control and experimental groups in attendance patterns. When examined from the viewpoint of lateness, the experimental students exhibited better patterns in three of the four schools.



#### CHAPTER VI

### SUMMARY AND CONCLUSIONS

# Introduction

The project reported here was a three-year study conducted in four public junior high schools of New York City. Most final data were gathered at the end of the 1967-1968 school year and the beginning of the 1968-1969 school year.

The major objectives of the study was to evaluate the effect of participation in a special program of music training on low achieving students who were selected as having good potential for success in learning music. The program was conducted in four special service junior high schools selected because their enrollment included a high proportion of low-achieving minority group students. It began with about 100 students in each school, half in the project music program, and the other half in an equivalent program which did not have the special music content.

The music talent project of the New York City Board of Education was known as the Musical Ability Utilization Project. It was an educational experiment based on the hypothesis that positive attitudes towards school growing out of successful experience in "non-academic" activities, specifically music, would result in a more positive general attitude towards school, and would have a positive effect on total school achievement and behavior.

The specific hypotheses in the present study were that after the experimental treatment was complete, the experimental group would be found to be superior to the control group, to an extent statistically significant beyond the .05 level of confidence, in each of the following respects:

- a. Growth in music potential.
- Improved academic achievement.
- c. Improved attitudes towards school.
- d. General behavior in school.
- e. Self-concept and social and emotional adjustment.

In addition, the hypothesis was that the experimental group, with a special music program, would achieve greater success in the area of music than the students in the usual major music program.

While the study had been planned to include five schools, community demand for program changes in one of the schools selected made it unsuitable for participation, and it was dropped, leaving four. Before entrance into junior high school, approximately 1200 students were screened with a music test, and those whose reading ability was one and a half to four years below the grade norm, and who were in the highest 55 per cent on the music screenitest became the study population. This population was randomly assigned to



experimental and control groups. Each of the junior high schools designed its own experimental music program. With the exception of these special music programs, the experimental and control groups had similar curriculums.

# Academic Achievement: Standardized Tests

In an attempt to determine the effects of the experimental program upon reading ability, two separate studies of comparative pupil performance on the Word Knowledge and on the Reading comprehension parts of the Metropolitan Achievement Test were undertaken.

When all experimental and control groups were compared, regardless of school, it was found that they did not significantly differ in word knowledge as measured by the Metropolitan Test. Similarly, no significant difference was found between total control and experimental groups in mean reading comprehension scores. However, in one of the four schools, a significant difference in reading comprehension, favoring the experimental group, was found. The hypothesis stating that disadvantaged children with low reading achievement would show superior gains in reading as a result of a special music program was not supported.

Program effects on achievement in arithmetic were also investigated. Results of the standardized test showed no significant difference between the experimental and control groups compared as a whole. In one school, however, the control group was significantly the superior.

When experimental and control subjects were compared as total groups in Arithmetic Problem Solving and Concepts, no significant difference in scores was found, though in one school, again, the control group was significantly superior to the experimental group. It can thus be concluded that the special music program had no effect on achievement in Arithmetic Problem Solving as measured by the standardized test.

To determine the effect of the program upon study skills, two separate studies of comparative pupil performance on the language study and social study skills parts of the Metropolitan Achievement Test, were conducted. However, in the area of study skills only three schools were included: one school was omitted since study skills scores were unavailable.

In two of the three schools, significant differences were found in Language Study Skills favoring the control group. In the third school the difference was not significant. When the groups were compared as a whole, the mean score in Language Study for the control group was significantly higher than for the experimental group. The special program, therefore, did not have a positive effect on the development of Language Study Skills as hypothesized, and may in fact have had a negative effect.

The comparative analysis of Social Study Skills by separate schools and again by total groups, did not reveal any significant differences in mean scores achieved by the control and experimental groups.

The hypothesis stating that disadvantaged children with a special music program would improve significantly more than comparable students not participating in the area of study skills is therefore not supported.



# Student Achievement: Teachers Grades

The purpose of this phase of the study was to obtain corroborative evidence in academic achievement in terms of teacher ratings on report cards.

Report card grades for the control and experimental students were arranged in nominal classifications. Comparative analyses were then performed by means of chi-square for teacher ratings in language arts, mathematics, social studies and final grade average.

It should be noted that while an attempt was made to use the same subjects for these studies as in the above studies on achievement, final grades could not be obtained for all students. The results here must be interpreted with these limitations in mind.

In the area of language arts no significant relationships were found between experimental or control groups and report card grade classification in three of the four schools. In the fourth school the magnitudes of all frequencies made meaningful analysis impossible. The results here generally supported the conclusion that the experimental program was not related to teacher grades received in language arts.

When a similar analysis was made in terms of final teacher ratings in mathematics, once again in three of the four schools no significant relationship was found with experimental or control group classification. In the fourth school where a significant relationship was found, the control group was favored.

The above analysis was repeated for social studies skills. In two of the three schools where the analysis was applicable, no relationship was found between teacher grade categories and experimental or control group assignment. In one school a relationship was found, again favoring the control group.

When final grade averages were analyzed in the above manner, no significant relationship was found in three of four instances. Where a significant relationship was obtained, it again favored the control group.

In all of the above instances, utilizing the chi-square analysis, the problem of small cell frequency must be considered a limitation in making meaningful inferences. However, the findings in general substantiate those obtained through standardized tests, i.e., there is no evidence to suggest that any greater improvement in the academic achievement of students exposed to the experimental treatment than in comparable students who were not.

# Music Ratings:

It has been hypothesized that students who participated in the Major Music Program would achieve in music at a level comparable to other general students in the Major Music Program at the end of three years. Students



were rated by teachers in the area of music on a specially devised rating form for comparative purposes. They were compared (1) with other non-project music students with similar low reading ability, and (2) with other non-project music students in the average school population. In both categories, project pupils tended to be rated higher than non-project pupils in three of the four schools, and lower in the fourth school.

# Students Behavior and Attitudes:

To determine program effects on pupil development in such non-academic areas as school behavior, attitudes toward school, attitudes in general, and attendance patterns, data were obtained by means of specially devised questionnaires and rating forms, interview guides and examination of school administrative records.

A comparative analysis of pupil behavior in school, as reflected in data recorded by teachers on a Student Behavior Form, was made for the experimental and control students. When general ratings for students were analyzed by schools, "t" tests revealed no significant differences between groups in three of the four schools. In one school a difference in the direction of better behavior was found in favor of the experimental group.

Changes in students' attitudes towards education were also assessed by means of teacher ratings as indicated for various items on a seven-point scale. For the most part, the special music program cannot be said to have exerted a measurable effect on these attitudes for the students in it. Ratings by the teachers produced no significant difference between the experimental and control groups, in three of the four schools. A significant difference favoring the control group was found in the fourth school.

In order to obtain additional data on changes within the pupils who participated in the music program, interviews were held. The interview, conducted with individual students, was completed with 22 students in the experimental group and 24 in the control group. It covered residence, motivation, aspiration, self-concept, control of destiny, attitudes towards school, preferences for school subjects, attitudes towards non-academic activities.

Thirty-seven of the 46 students were born in New York City and had had all their schooling in the same school district thus far. They were generally interested in "the arts" and indicated that they would try to improve their grades, if necessary, if permitted to continue participation in "the arts."

The pupils in the special music program enjoyed it, and were generally in favor of it as carried on, and hoped to continue it in high school. A feeling of accomplishment and heightened self-image was expressed by 19 of the 22. In summary, it can be stated that the special music program appeared to be a positive factor in fostering in these students an improved self-concept, better peer relations, and stimulation to study other academic subjects.



As another guide to changes in the pupils, attendance and lateness records were reviewed for the last school year of the study. Analysis of the data, classified for degrees of absence and lateness, showed no significant difference in patterns of absence from school. In three of the four schools, however, the experimental group showed significantly better patterns in promptness of arrival at school.

# Conclusions and Implications:

The project has been of value in several ways. The results showed few significant differences in most of the measured aspects, but a good deal was learned about the schools and the students in the experimental situations.

Meaningful results demonstrated that a majority of experimental students did learn music as well or almost as well as students who had average academic records. Except in one school, there was no loss in academic achievement as compared to the control students. This would indicate that the music program did as well as remediation or other treatments which were given to the control students.

The results of the personal interviews with students showed a strongly reported link with school. Informal personal interviews with music teachers, principals and administrative personnel in three schools showed a consensus of opinion of a group unity and better than average behavior for most of the experimental students.

The interviews found an important motivating factor for both experimental and control students. Those students who were involved in a school activity or had a personalized vocational goal indicated that these situations made school personally meaningful. Students in either category responded with interest and liveliness.

In one school the problems of scheduling made the experimental group isolated. They were kept in one class and were not transferred for better personality mixing. A class clique was formed and this treatment, which was contrary to usual school treatment, led to inverse results for behavior and academic achievement. This instance is the extreme example of the complex problems and interrelations of the experiment and school administration. It was not possible to keep the experimental factors isolated in any school environment.

The need for merging the experimental design with the complete conditions and usual administrative plan for the school has been demonstrated. Classical design does not work out within one school in a large multi-factor situation.

The personal interview with sufficient time and good rapport may prove to be the best technique for discovering important relationships in a study. Interviews should be carried out throughout an entire project. It would also be suggested that the project staff be separated into administrative and investigative personnel, working together, with distinct responsibility.

Introduction of school activities fitted to the larger individual interest seems to be indicated. Activities enhancing internalization of recreational, artistic, and vocational goals may be one of the best approaches for making the youth merely attending school into a student. It is suggested that further studies be conducted using varied and expanded motivation activities. An entire school should be involved with control being furnished by another similar entire school which would not use this individualized motivational approach.



#### ABSTRACT

The problem was to evaluate the effect of participation in a special program of music training on low academic achieving students from low socio-economic areas. The rationale was that successful experience in "non-academic" activities, specifically music, would result in generalized positive attitudes towards school, and would have a positive effect on total school achievement and behavior.

The specific hypotheses were that the experimental group would be superior to the control group in academic achievement, attitude towards school, behavior, personality, and musical achievement.

The project was initiated in five special service Junior High Schools whose enrollment included a high proportion of low achieving minority group students. The first year of the project was used for selection and planning. Before entrance into Junior High School, approximately 1200 students were screened with a musical test. Those students who were below reading level and in the upper 55 per cent on the music test were randomly assigned to experimental (music) and control (no music) groups.

The music program was an experimental program which ran for three years. Each experimental student had music as a major subject and was taught an instrument or voice. The program was different in each school and presented unusual problems in teaching and curriculum. The second section of the report contains material from a project developed curriculum.

Implementation of the project presented difficulties. The project program had to fit into the school program and in the attempts to meet the demands of educational crises it was not possible to isolate the project variables. The program was started with about 100 students in each of five schools and was completed with about 42 students in each of four schools.

At the end of the three years, measurements were made in achievement and attitudes. Scores on a standardized achievement test, teachers marks, and music ratings were used to measure achievement. Except for one school, there were no generally significant differences between the experimental and control groups in reading, arithmetic, and study skills scores or in teachers grades in language arts, social studies and mathematics.

In music most of the experimental students were rated as having achieved well even compared to average school population.

In attitudes and behavior, teachers ratings showed no significant difference between groups, and analysis of attendance showed only slight trends in favor of the experimental group. Individual interviews with 46 students showed that participation in the music program



led to personality improvement and stimulation to study other academic subjects. A significant result of the interviews was that indication of a strong interest in a school activity or in a realistic vocational goal made school personally meaningful.

In one school the experimental group became topologically isolated and this experimental group had a detrimental experience. It should be noted that experiments cannot be isolated from the school program and that classical design must be revised to fit life conditions.



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#### APPENDIX A

# Music Test Scoring Form

## Test Description and Development

The "Musical Potential Test" was designed for use with students from Low-socioeconomic backgrounds. A copy of the test and instructions follow this description.

Since the particular content of the test was selected for use with a narrow classification of pupils in the fifth grade, and the purpose was to furnish a basis for a generalized judgment of probable success in a music program, the test is not standardized on general norms. The item content of the test is fixed and the instructions for administration furnish equivalent conditions.

The test consists of pupil-response imitations of items in rhythm, two-tone intervals, and melodic fragments. There are four trial items and eight test items of each type making 24 test items in all. A familiar song is also sung by the pupil and scored. Development of the test from tryouts of likely items was as follows:

- 1. Tryout test forms containing 48 intermediate tryout items were used in testing students from three fifth grade classes in an elementary school.
- 2. Simultaneous rating and scoring by seven judges was held in sessions which covered tape recordings of the performance tests of ten students.
- 3. The tetrachoric correlation "r" was found for 48 items, the three musical categories of rhythm, tonal interval, and melodic fragment imitation contained 16 items for each. There were a sufficient number of items which had an "r" value above .7 in order to select a final test form of 24 items. The judges ratings on items was evaluated by comparison with the quadratic probability formula. The items showing a high degree of agreement between judges and also showing results of good correlation were selected and arranged for the final tryout form of the test.
- 4. The final tryout form of the test was administered to 19 fifth grade students in an elementary school. The tape recorded tests were simultaneously rated and graded by five additional judges. One item was changed on the basis of this testing and the final form of the music selection test was prepared. Validity was on the basis of expert judgment of appropriate material. The . musicians involved had had many years of experience in testing, selection, and achieving success with music programs. Reliability was on the basis of items selected by correlation and inter-judge agreement.

The practical value of the test is that the best possible response was elicited from a population which is difficult to test in a performance situation which is in itself often inhibiting. The test may be useful as a basis for revision to meet local needs.



## Instructions for Administration of MAUP Screening Test

# A. General Considerations

- 1. The purpose of the test is to determine whether the testee falls within the category of acceptability for a Junior High School Major Music Class, not to determine the order of excellence of all children tested.
- 2. All the items within each sub-test are therefore approximately of the same level of difficulty.
- 3. The test has been designed for use with a population of fifth graders with severe reading retardation, a population which is "test-shy". Every effort must therefore be made to establish and to maintain an easy, cordial relationship with each testee during the conduct of his examination.

# B. The Nature of the Test

- 1. The test consists of 4 sub-tests:
  - a. Matching: Rhythms
  - b. Matching: Tonal Intervals
  - c. Matching: Melodic Fragments
  - d. Singing: Familiar Song
- 2. Each matching test has 4 "Preparatory Items" which are not scored and 8 "Test Items" which are scored according to the code indicated below.
- 3. The Familiar Song is to be of the child's choosing. The Examiner should suggest "Our Father's God To Thee." If the child is not sure of the words, he should be encouraged to substitute the syllable "la" when his memory fails. If the child says he is not familiar with the melody, any other song he knows will be acceptable. The Examiner may find it necessary to "prime the pump" by singing the first phrase after asking the child to sing along with him.



# C. Scoring the Test

1. Scoring of the test will be according to the following code:

Category	Rating Code	Meaning of Rating Code
	E	Excellent
"Pass"	ok	Acceptable
	?	Marginally unacceptable
"Fail"	NG	"No good" i.e. completely unacceptable

- 2. The Examiner will indicate his rating of the Testee only once in each sub-test, in the box labelled "General Estimate." The rating is to be filled in according to the Code. This is an "Off-the-top-of-his-head" rating and is to indicate the Examiner's immediate feeling as to the acceptability of the Testee. It need not, and indeed sometimes will not, agree with the average of the rated items in any sub-test.
- 3. All "Test Items" numbered from 1 through 26 will be rated by the Scorer according to the Code.
- 4. The box labelled "Average Score" is to be left blank by both Examiner and Scorer. This refers to the average of all rated items within a sub-test and will be computed by machine.
- 5. Item 27 is to be rated by the Scorer, who will mark an X in the approximate box. The term "Key Integrity" refers to the ability of the Testee to sing all the phrases of the Familiar Song in the same key.
- 6. The unnumbered item labelled "Voice Quality" is to be rated by the Scorer according to the Code. The Scorer may add comments as: pure, nasal, throaty, etc.
- 7. "Preparatory Items" lettered "a". "b", "c" etc., are not to be scored.
- 8. See D. 5, D. 10, 11 below.
- 9. The Scorer must be careful to rate the child's response against the <u>heard</u> stimulus only, if the Examiner produces any item incorrectly.



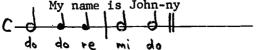
## D. Conduct of the Test

- 1. The test is administered individually and privately.
- The only persons present will be the Testee, the Examiner and the Scorer.
- 3. The Examiner and the Testee should face each other, each at his own desk. If only one desk is available, care should be taken that it is large enough so that the Examiner's paper does not interfere with the child's response.
- 4. Care should be taken that the child's desk and chair are comfortable for him, and that the desk is low enough so that he does not have to strain in order to respond to the 'Matching: Rhythms' Sub-Test.
- 5. The Scorer should be at a separate desk, so arranged that his activities do not disturb the Trustee.
- 6. When a child enters the room he should be greeted warmly, invited to sit, and engage in conversation related to music. Such conversation should be sparked by such questions as the following: "Do you like music?" "Do you ever play bongos?" "Do any of your brothers or sisters play an instrument?" "Have you a piano at home?" "Do you sing in your church choir?"
- 7. The sub-tests should be given in the order indicated under B.1. above. However, the order need not be maintained rigidly. For example, when a child has failed utterly in the "Matching: Rhythms: Test and has scored very well in the others, it is permissible to retest him on the Rhythms at the end. The child's initial failure may have been the result of an emotional blocking which disappeared as the examination progressed. Such emotional difficulties, especially as related to testing, are not uncommon among children who have had a history of academic failure.
- 8. The purpose of the "Preparatory Items" is to give the Examiner the opportunity to explain what is required without pressure. The examiner may coach and correct the child in thee items and may have the child do them again, if he feels this will help to prepare the child.
- 9. The transition between "Preparatory Items" and "Test Items" is to be made smoothly so that the child is not aware that he has crossed the awesome line separating the "for fun" from the "for real."
- 10. Once the Examiner has begun the "Test Items", he may not coach or correct the child or give him any assistance beyond the warm encouragement of his tone, his smile and his occasional "very good" (or equivalent). If a child asks to hear the item again, the Examiner should reproduce it once without comment. The Scorer may rate the child's first response only.



- 11. When a child fails utterly in the first few "Test Items" of a sub-test, if the Examiner feels that the failure is due to fear or some other emotional involvement rather than to poor aptitude, he may go back to the "Preparatory Items" or improvise other items of a preparatory nature and coach and help the child. When he subsequently goes into the "Test Items" again, the observations made in D. 10 above apply, except that the Scorer will now re-rate the previously-rated Test Items. In such a case, the rating sheet may look like this:
  - 1. NG OK E OK 5. OK
- 12. Metronome markings should be observed as closely as possible by the Examiner but no item should be redone if the Examiner feels that he has not followed the marking closely enough.
- 13. In the "Matching: Rhythm" sub-test, all Test Items are to be performed at approximately M.M. = 160; in the "Matching: Melodic Fragments" sub-test at approximately = 72 or 72. The Examiner should strive to keep to the same tempo for all items within either sub-test, once he has set it, if that tempo is reasonably close to the indicated metronome marking.
- 14. In the "Matching: Rhythms" sub-test, the Examiner will tap the rhythms with a pencil or with his knuckles. The child will be asked to "tap back" what he hears with his knuckles.
- In the "Matching: Tonal Intervals" and "Matching: Melodic Fragments" sub-tests, the "Preparatory Items" will be used for the purpose indicated in D. 8 above and in order permit the Examiner to assess the effective range of the child's voice. Written middle C in both sub-tests is to be taken as a symbol of the lowest effective pitch in the child's voice. If the Examiner has not been able to determine that pitch, he may improvise additional items until it is determined. Once the "Test Items" have begun, the examinator should strive to retain the indicated tonal relationships not only within each item but from item to item as well. Determination of the child's effective range is of crucial importance here, since a child's intonation may be affected if he tries to reach a pitch that is uncomfortably high or low for him. If, once the Test Items" have begun, this happens, or if a child "jumps octaves" in order to sing the correct tones or transposes items in order to maintain the melodic patterns, the Examiner may go back to the "Preparatory Items" so that he may re-determine the "starting note."
- 16. If a child absolutely fails to match tones properly in the "Preparatory Items", the Examiner should improvise informal items which may help the child to overcome emotional blocking; items such as:

  My name is John-ny



17. If, in any sub-test, no reasonable amount of preparatory coaching will help a child to reproduce the items correctly, the Examiner may stop after 3 or 4 "Test Items" and proceed to the next subtest.

## E. Pre-Test Orientation

- 1. Prior to the individual testing, the children to be tested should be spoken to as a group for the following purposes:
  - a) Establishment of rapport between Examiner and prospective Testees. Group singing of a familiar or popular song or commonly-known round (such as "Row, Row, Row Your Boat"), instrumental and/or vocal performance by the Examiner or by some J.H.S. children, questions about popular favorites, singers or bands, etc., are among the activities that will be helpful in this connection.
  - b) Motivational information about the Junior High Offerings in Major Music.
  - c) Preparation for the test. The Examiner may have the class respond to some simple (and if possible humorous) rhythmic and tonal items similar to those they will face later.

#### F. Miscellany

- Pictures of instruments, orchestras, well-known singers, etc. may be mounted in the orientation room or in the testing room for purposes of motivation or stimulation of discussion or conversation.
- 2. After the completion of the individual test, if in the Examiner's general estimation, the testee will be in the category of the acceptable, he (may?) should be asked:
  - a. whether he prefers to sing or to play.
  - b. if the latter, what his favorite instrument is.
  - c. whether he would like to learn some other instrument in Junior High School if his favorite is not available and if he is selected for the special music class.



# RHYTHM TEST S= 160 in all items

# REPARATORY ITEMS

# INTERVAL MATCHING TEST

# PREPARATORY ITEMS ોત la la la la la. ta. la TEST ITEMS la la ♣ la la. 20 2a ♣ Za la la la **→** la la la la 2a ła.



# MELODIC FRAGMENTS TEST





Musical Abilities Utilization Cooperative Research Project No. 2600 Scoring Form

Interval Match  E  F  G  H  9  10	Melodic Fragment  J  K  L  M  17  18
F  G  H  9  10	K L
G H 9 10	L
9 10	17
9 10	17
10	
10	
_	18
11	19
12	20
13	21
14	22
15	23
16	24
Overall Estimate	Overall Estimate
_	Key Integrity
-	Approx. Exact
<del>-</del>	Grossly Incorrect
<del>.</del>	Apparent Motivation
	14 15 16 Overall Estimate



# APPENDIX B Teachers Rating of Musical Ability

Boro	District	School	

# BOARD OF EDUCATION OF THE CITY OF NEW YORK BUREAU OF EDUCATIONAL RESEARCH MUSICAL ABILITY PROJECT COOP. RES. PROJ. # 2600

#### TEACHERS! RATING OF MUSICAL ABILITY

Students!	Name	Official Class	Teachers' Name
Length of time	this student	has been in your class:	From to month

Instructions: Please rate the musical performance of this student as compared to the musical performance of other music students of the same academic level in the same grade. (Note: Music project pupils were one to three years behind grade in reading.) For the 8 items listed below circle the number which best fits the students' performance. The value of the number is given by the scale shown below:

	Ŗ	1	1	t			1		
	1	2	3	4			5		
	among	below	average	above		an	ong	; th	е
	the worst	average		average			be	st	
1.	Tone quality				1	2	3	4	5
2.	Facility in har	ndling instru	ment or voice		1	2	3	4 4 4	5
3.	Musicianship (				1	2	3	4	5
	phrasing, expr	ession)	- · ·						
4.	Sight-singing				1	2	3	4 4 4	5
5.	Note-reading				l	2	3	4	5
6.	Music informat:	ion			1	2	3	4	5
7.	Ensemble skill	(ability to	adjust pitch,		1	.2	3	4	5
			eds of the group)						
8.	Interest and en	nthusiasm			1	2	3	4	5

Instructions: Please mark the proper number in the scale below for these items:

9. Overall rating of musical ability in the group of project music students(of the same reading ability range) in this music class.

1	1	1		
1	2	3	4	5
among	below	average	above	among the
the worst	average		average	best

10. Overall rating of musical ability in the group of music students of usual academic ability in this grade in your school.

1	!	1	î	
1	2	3	4	5
among	below	average	above	among the
the worst	average	4	average	best



# APPENDIX C Student's School Behavior Form

Boro	_District	School	
------	-----------	--------	--

## BOARD OF EDUCATION OF THE CITY OF NEW YORK BUREAU OF EDUCATIONAL RESEARCH MUSICAL ABILITY PROJECT COOP. RES. PROJ. #2600

#### STUDENT'S SCHOOL BEHAVIOR FORM

Student's Name	Official Class	Teacher's Name
Length of time this student h	as been in your class:	From to month

Instructions: On the scale of behavior below rate the student from 1 to 7 according to the one category that describes him best. Notice that there is provision made for ratings in between the descriptions. If you feel that the category that fits the student best is between the descriptions mark that point value. Rate behavior only. Disregard academic achievement and attitude toward education. Circle only one number on the scale.

12	3	4	5	6	7
1 1		1	1		1
Usually Poor Behavior (Generally un- cooperative: much friction with pupils and teacher; rebellious or severely withdrawn)	Usually Fair Behavior (Can be con- trolled; no continuous hostility or withdrawal; inconsistant behavior pattern)		Usually Good Behavior (Generally cooperative; little host; ity or with- rawal; some friction but usually gets on well)	; [1- - =	Usually Excellent Behavior (Trustworthy cooperative; little, if any friction with pupil and teacher)

Instructions: For each of the five behaviors listed below, indicate next to the behavior the rating which seems to fit the pupil best. Next to each listing circle the number according to the scale below:

# Rating Scale

	1	2	_ 3	4	5		6				7
	Almost	Usually	Frequently	Some- times	Infrequen	t1y	Se	e1d	om		lardly ever
1.	Talks out	of turn or	interrupts	the cla	s <b>s</b>	1	2 3	3 4	5	6	7
2.	Acts diso	derly in t	the corridors	•		1	2 3	3 4	5	6	7
3.	Gets into	fights wit	h other pupi	.1s		1	2 3	3 4	5	6	7
4.	Makes litt	le effort	to obey scho	ol rule	s	1	2 :	3 4	5	6	7
5.	Disturbs o	other child	iren while th	ey work		ĭ.	2 :	3 4	- 5	6	7



# APPENDIX D Student's Attitude Toward Education Form

Boro	District	School

BOARD OF EDUCATION OF THE CITY OF NEW YORK BUREAU OF EDUCATIONAL RESEARCH MUSICAL ABILITY PROJECT COOP. RES. PROJ. #2600

# STUDENT'S ATTITUDE TOWARD EDUCATION FORM

Student's Name	Official Class	Teacher's Name
Length of time this	student has been in your	class: From to month month

Instructions: On the scale of attitude below, rate the student from 1 to 7 according to the one category that describes him best. Notice that there is provision made for ratings in between the descriptions. If you feel that the category that fits the student best is between the descriptions, mark that point value. Rate attitude toward education only. Disregard academic achievement and behavior. Circle only one number on the scale.

1	2	3	4	5	6	7
	1	1		1	1	1
Usually Poor Attitude (Not interest in class work does not act as part of school; does not care to learn)		Usually Fair Attitude (Sometimes shows en- thusiasm; mixed pattern of wanting to learn; pays fair attention	)	Usually Good Attitude (Interested in school work most of the time; asks good questions is attentive)	;	Usually Excel- lent Attitude (Gives best effort to work; volun- teers; almost always shows high interest)

Instructions: For each of the five actions and attitudes listed below, indicate next to the behavior the rating which seems to fit the pupil best. Next to each item circle the number according to the scale below.

#### Rating Scale

	1	2	3	4	5		6	5		7	,
	Hardly ever	Seldom	Infrequently	Some- times	Frequently	Į	Īsua	illy	•		ost ays
1.	Comes to	class pre	pared for the le	esson	1	2	3	4	5	6	7
2.	Gets exc	ited or en	thusiastic <b>a</b> bout	t s <b>c</b> hool	work 1	2	3	4	5	6	7
3.	Tries to work up to potential					2	3	4	5	6	7
<b>4</b> ,	Voluntar	ily does e	xtra school wor!	¢	1	2	3	4	5	6	7
5.	Appears	to desire	more education		1	2	3	Ŀ	5	6	7



# APPENDIX E Pupil Interview Guide

# BOARD OF EDUCATION OF THE CITY OF NEW YORK BUREAU OF EDUC! 'IONAL RESEARCH MUSICAL ABILITY UTILIZATION - Coop. Res. Proj. #2600

# Pupil Interview Guide

#### Instructions to Interviewer:

Please spend about ten minutes with each student in free discussion without taking any notes. Inform the student that we are trying to find out how to make the school program better. Tell the student that his name will not be used and that there will be no report to the school.

# Topics suggested are:

What the student thinks about what is going on, Civil Rights, Poor Peoples March, etc. Which person he would want to be like. Heroes. Going to High School and general topics.

1.	What do you like to do most? If you could do anything in or out of school, what would you like to do?	
2.	What would you like to do when you grow up?	·
3.	Do you think that going to school will help you get what you want?	
4.	Where were you born - how long have you gone to school in New York City?	
5.	What do you like the most about school?	
6.	What do you like least about school?	
7.	When you get up in the morning, how do you feel about going to school?	
8.	How do you like junior high school as compared with elementary school? Why? Explore	. '
9.	Do you feel that you really belong to the school? Explore	



10.	What do you think is special about you? Why?	
11.	How smart do you think you are compared to others about your age?	
12.	Do you think you would do better in school if the teachers didn't go so fast?	
13.	Is there any kind of homework that you like to do?	
14.	Which of your classes do you like best? Why?	
15.	Is there any class you go to now where you would like the period to be longer?	
16.	Is there any kind of class that you don't have now that you wish you could take?	
17.	Which class periods seem too long to you? Why?	
18.	Are there any subjects that you wish you could drop?	
19.	Do you think that good breaks are more important than hard work for getting ahead?	
20.	Suppose it was snowing or raining hard or hard to come to school for some other reason, is there something you do in school that would make you go anyway?	·
21.	Do you ever get the feeling that just when you are getting ahead, something comes along to stop you?	
22.	Would you volunteer to do extra work for a school project or performance? What kind of project would you like to do?	



23.	Besides the book subjects like social studies or math, what things do you like to do during regular school hours or after school sessions? For example, art work, athletics, music, plays or things like that.	
24.	Are you doing any of these things now? How often? What after school sessions do you go to?	
25.	How would you feel if you had to miss this activity?	
26.	Suppose you were told that you would not be allowed to go to this activity because your other school grades were getting too low, what would you do? Explore further	·
27.	Do you think that being in this (special activity) has made any difference in how you have done in your other school work? Explore	
For 28.	Major Music Program Students:  How about the music class - do you enjoy going there? How would you change that if you could?	
29.	If they give you the chance, would you like to continue special music in high school?	
30.	Do you enjoy getting all dressed up and being on the platform for special music performances?	
31.	Can you feel that you have accomplished something in music? Explore	
32.	Do you think being picked for special music class makes you seem more important to your friends? Do you feel more important?	



# For Instrumentalists:

- 33. Do you play an instrument? How do you feel when you walk through the street to school or to your home carrying your instrument?
- 34. If you were told that you would have to drop music if your other grades didn't improve, what would you do? Explore further.
- 35. Do you think that being in the special music program has made any difference in your other school work? Explore



FINAL REPORT
Project No. 2600
Contract No. O E 5-10-197

### MUSICAL ABILITY UTILIZATION PROJECT

(PART II)

April 1969

Martin Olanoff and Louise C. Kirschner

U.S DEPARTMENT OF HEALTH, EDUCATION AND WELFARE

Office of Education Bureau of Research

Board of Education of the City of New York Bernard E. Donovan, Superintendent of Schools

Office of Educational Research J. Wayne Wrightstone, Assistant Superintendent

Bureau of Educational Research Samuel D. McClelland, Acting Director



#### FOREWORD

The educational motivation of many of today's disadvantaged youth is of primary concern to school personnel throughout the country. Since the number of disadvantaged youth in New York City is large, the problem is of special importance.

Over the last ten years about 400,000 new pupils from outside New York City have been admitted to the city's public schools. The majority of these children have come from rural sections of other states which have much lower standards of teacher certification and of curricular requirements than the New York City public schools. Of the remainder (about a third of the total) a large number have come from Puerto Rico, as well as from Asia and Europe and cannot speak English on arrival. Consequently, many of these new entrants, particularly the large proportion of disadvantaged children, have entered the city's schools already educationally retarded. This retardation and an associated lack of motivation for school success persist as the pupils advance through the grades.

As one of numerous educational experiments, designed by the Bureau of Educational Research of the Board of Education to raise the aspirations and improve the academic achievement of educationally retarded students, an experiment was conducted using music - a "nonacademic" subject - as the motivating force. It was hypothesized that participation in a special music program by pupils in junior high schools who showed musical talent would tend to improve the students' achievement in academic subjects, create a positive attitude toward school, and improve self-concept. The results of this study, comparing similar groups with and without a special music program are described in a companion publication: Musical Ability Utilization Project Final Report.

While major music programs have long been available in the city's junior high schools, they have been offered only to musically talented students with good academic achievement. The extent of the program was limited by the number of available music teachers, school space, and a short-age of musical instruments.

In the experiment conducted to discover how participation in an intensive music program could stimulate disadvantaged students with poor academic achievement, certain modifications were made in the usual major music program to adapt it to the low-achieving student. It was thus necessary to prepare special instructional materials, and to construct a flexible curriculum that could be adapted as emerging needs were perceived.

It should be noted that the students in the special program were not volunteers. Group and individual music instruction were given at least four periods a week, during school time. Instruction was broad in scope, including not only instrumental techniques, but also sight singing and theory The intent of the instrumental classes and choral workshops was to teach performance, musicianship, and appreciation.



# Development and Use of Specialized Instructional Materials

Teaching music to non-achieving students introduced new and unusual conditions to teachers of music. The unique conditions and the objectives of the program called for a coordinated special curriculum and the development of special methods and materials in music. The curriculum and its specific developments are presented in this report.

At the beginning of the second year of the project a full time music specialist was brought into the program to develop these methods and materials. Since the classes were at different levels of progress in the second year of the program, the material was devised to include information which should have been acquired during the first year. As the material was produced, it was presented by the specialist to each music teacher, school by school. Its presentation to the class was discussed and demonstrated. Since the material was created with non-achievers in mind — especially in reading — an attempt was made to keep the language as simple as possible, although musical terminology was kept intact. In all, ten units of teaching and reference material were developed.

# Principles Underlying the Development of the Special Curriculum and Materials

As a subject, music is much more complex and interesting than one would suspect from its frequent presentation in the schools. In common with other subject areas it has a language of its own which requires familiarization and interpretation. It has a history that reaches far into antiquity. It has a logically developed notation. It is more universally understood than any other language. It has an extensive literature.

Basically its end product is performance, which may be taught initially by rote, just as the child learns to speak before he reads or writes. The ability to perform intelligently increases as the ability to read and interpret musical notation increases. This musical notation has developed so logically that its understanding becomes a necessity for the intelligent musician. By pointing out this logical development from the start one hopes to provoke the curiosity of students and lead them to material sources for investigation. It should be interesting to students to see how complexity in the musical literature developed with increasing refinements in notation invented to permit more expressiveness in sound and with refinements and improvements in musical instruments.

By exciting and provoking curiosity the teacher directs students into the great musicological literature, much of which is written and illustrated for the young student. Musical dictionaries should be available for consultation. Most of these go far beyond mere word definition as found in our language dictionaries. They often give historical background material.

The truly cultured person never stops investigating, questioning and learning. The teacher as well as the student must be involved in this process. Imagination and initiative must be stimulated. No methods book can fulfill all the needs of a class. The teacher must often create additional material



to extend the lesson material beyond those of books on methods. Additional exercises can be created with cooperation. Students can be involved in how and why a musical arrangement is produced, and encouraged to try their own arrangements. Harmony can be introduced simply in a string class, for instance, by showing how, by using open strings only, violins can play C, cellos and violas C, and double bass E to create a major triad. Investigation will show that E, A, C can produce a minor triad. Vocal students should have an opportunity to play instruments, and instrumental classes should sing.

Any teacher willing to try expanding the curriculum away from the narrowness of sheer performance-oriented lessons with a high proportion of rote instruction will find a more rapid improvement in performance.

In creating the ten units and reference material presented in the following chapters the tendency to "tell all" was curbed and it was hoped that students would find enough opportunities to ask "How?" and "Why?" and be directed toward proper research material.

Recorded and taped music and attendance at live performances should be included as a stimulus and an example toward a development of good critical ability. Knowing why one likes or dislikes certain music or performance can lead to emulation and self criticism. Class discussions with an increased special vocabulary may be stimulating.

Since the units in music were written with the slow achievers in mind, the language used is relatively simple, except for the musical terminology. Errors in reading as indicated by inability to achieve a perfect score in the tests require self correction through re-reading the material. Tests were deliberately made simple.

Practical application of knowledge is more conducive to growth than abstract learning, especially for the non-academic student. In using these units, it is suggested that the teacher choose the particular section that applies to the current lessons. Such choices will stress the immediate use of the music concepts and skills for the slow-achieving student.

Treatment of music as an area with its own language, background, history and relationships, helps give it its proper status among other subjects in the school curriculum.

With the slow achiever, an awareness of the capacity to absorb specialized terminology, to read a special language, music, and to perform successfully may serve to increase self-confidence and create a desire and ability to approach other learning in the same way.



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## TEACHERS GUIDE TO UNIT MATERIAL

The ten units presented here are experimental material devised for use, self testing and self-correction by students in the Major Music program. Because the particular program for which this material was written involved only academic non-achievers with a low reading achievement the language is deliberately simple and words in the ordinary reading vocabulary are underlined and included in the vocabulary lists. The content explains most of these words and the meanings should be evident to the students if they read carefully. Technical musical terminology is adhered to throughout.

This material is not basically classroom teaching material. Although it may be briefly referred to at the time of assignment it is not intended to take the place of classroom teaching but to reinforce it.

Many of the sections are purely reference sections and the student need not be expected to remember all the facts. He should however, know that he has a point of reference to which he can turn.

Each section of a unit has its own test which includes questions based on that section alone. Each unit has its own test based only upon that unit. Each unit is followed by a  $\underline{C}$  or Comprehensive Test which may be used if the units are taken sequentially. It is wiser, however, to take the unit material in the order which will best serve the individual or the individual class.

If the student is encouraged to insert these papers into a loose leaf notebook and illustrate them he will end with a reference text of his own.

This is basically what we call "Teacher Made Material" and teachers should be encouraged to add to it any additional material which will best suit a particular class. Tests are not intended as a grading device. They may, however, serve as a guide. The teacher may add to or alter the tests as desired.

The material included reflects the questions and "curiosities" of students in the writer's classes from the elementary grades through classes in Music Education and it is hoped that the students using it will be encouraged to go on to other sources for additional information.

Since each teacher has his or her preferences in texts, performance materials and recordings, no attempt is made to relate this material to specific texts or repertoire. The material has been carefully edited to eliminate this. There are may syllabi and curriculum bulletins which suggest graded repertoire and I'm sure all teachers of music have been exposed to them.

Appendix A = contains the Answers to the tests - Answers to the Comprehensive Tests are in Appendix B

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### SUGGESTIONS FOR USE OF UNIT MATERIAL

# UNIT I - A

### General Information - reference material

Teacher should add to this any signs omitted which may be in-volved in beginning lessons.

UNIT I - B

The Beat

3 2 4
4 and 4 deliberately precede 4 since they are simple time and do not involve a secondary strong beat. The difference in numbers is also helpful in drawing attention to the fact that it is the top number which tells the number of beats in the measure.

UNIT II - A

The Staff

Note the warning at bottom of page

UNIT II - B

Notes

Find examples of these in music texts or performance material. Here, especially in choral groups, it may be necessary to explain 2 parts on 1 staff with "stems up" indicating one part or one instrument and "stems down" indicating the other part.

# UNIT II - C

# Note Values and Rest Values

Note "time spacing". Much of our printed music is prepared for printing by people who are more interested in getting a certain number of measures on a page than in keeping the rhythmic spacing of music so important to reading and reading by sight. The difference sizes of measures is much less important and the bar lines occurring at irregular intervals serves an important function here. In fact, there have been proponents of measures of equal size but here experiment has shown that too much similarity of the size of measure often leads to confusion.

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Similarly, if the bar lines are exactly below each other from line to line in instrumental music the player often loses his place.

In choral music too high a percentage of stress is placed upon word placement to the detriment of clear note spacing.

Try putting patterns like the following on a blackboard and in each case you will see how easily the student keeps his beat and rhythm with the "A" lines as compared to the "B" lines.



UNIT II - D

The Time Signature

Note true meaning of  $\underline{C}$  - It is  $\underline{not}$  a  $\underline{letter}$  C

It is recommended that 4 should not be the first time signature taught when we are explaining the functions of the two numbers involved. Students become confused because both upper and lower figure are the same.

It may be interesting to skip to Unit III - F at this time to see where the C and  $\boldsymbol{\dot{\varphi}}$  come from.

UNIT II - E

Dotted Notes

This unit on the dotted note may also be linked with Unit III - F

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#### UNIT III

Some "Hows?" and "Whys?" in the Story of Music

An understanding of how our system of musical notation developed is conducive to better reading of music. The musical symbols and their development through a necessity of communicating from the printed page, the sheer logic of our notational system makes the whole process of interpreting the score much easier.

It is also hoped that the curiousity of the students will be piqued so that they will wish to investigate the back-grounds more thoroughly. Thorough investigation and research into the areas touched on in this unit was sparked by students' questions and still is. One of my students at college, a student teacher, said he had been asked why we didn't use an "E clef" for instance or a "D clef". We found ourselves engrossed in a study of the Byzantine notation and entablature which does use <u>all</u> the clefs and a many lined staff.

# UNIT IV - A

The "Notes" We Sing and Play Pitch and Letter Names

Let students make up their own "words". Games can be devised for quick identification and reading of notes.

UNIT IV - B & C

Tones and Semi Tones
Major Scales - Minor Scales

It is helpful to have a keyboard chart visible in the music  ${\tt room}_{\:\raisebox{1pt}{\text{\circle*{1.5}}}}$ 

If there is a piano in the room it is advisable to allow students to try half steps and whole steps on the instrument - to build the scales from any point regardless of note names. At this point it is also recommended that you use "Reference Material - The Grand Staff as Related to the Piano Keyboard, Charts I and II and III.

Reference Material on Scales and Keys, Major and Minor and as related to the voice or instruments is also a part of the student Reference Material which should be introduced now.

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#### UNIT V

#### Minor Scales

The one point common to all minor scales is the lowered 3rd degree and the minor triad of the tonic. By lowering only the 3rd degree of any major scale we immediately create a minor scale, the ascending melodic minor. The other sections of this unit - the relative minors - the parallel minors harmonic, melodic descending or natural minor may be taken separately and used when needed.

#### UNIT VI

## The Language of Music

This unit and Unit VIII, containing the elements which build understanding of interpretation of the score should be assigned as they are applicable to the literature being studied.

An understanding of the interpretative signs is an important step in the acquisition of musicianship and the ability to apply the rules of dynamics, tempi, beat and the signs which modify them.

It is suggested that the teacher familiarize himself with the contents of these units and use the various sections as needed along with the basic material presented in the first units.

#### UNIT VII

### Instruments of the Orchestra or Band

The Introduction is applicable to all music students. Subsequently the teacher may introduce the section which includes the class instruments first if the classes are divided into string, brass, woodwind sections.

Vocal teachers may find a relationship to soprano, alto, tenor, bass in the 4 main instruments of the wind and string sections pertinent to their teaching. Vocal tone production is often very closedly related to the wind instruments.

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### UNIT IX

### More About The Staff

Unit Ix is an extension in reading and interpretation. Again, teacher familiarity with the sections and their contents will intimate when they should be presented as the repertoire increases in reading difficulty.

#### UNTT X

# Intervals & Chords

A knowledge of intervals is important in sight-reading. Most musicians don't stop to set the names of the notes no matter what system of notation is used. In the clef related to our instrument we try to develop an automatic response to the notes on the staff and in singing, an automatic response to the interval.

The vocal teacher, using the table of intervals as a starting point, may develop whole series of vocalises sequences as applied to the repertoire. Students can be encouraged to create vocalises

Series may be developed by employing the notes in a triad. Since composers use intervals and chords and scales in an infinite number of combinations it is interesting and instructive to make the student aware of the composer's device and intention. For instance a sequence of  $V_{1}$  chords may result in the following passages, (which are only three examples of an infinite variety). The ability to recognize this is fascinating to students.



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### UNIT X

# (continued)

The occurrence of the accent on the 3rd or 5th or 7th of the chord instead of the root note creates many interesting patterns. With the introduction of auxiliary notes, upper or lower, passing notes etc., the world of composition may be entered into by the student with understanding.

The teacher may find he wants to introduce the major, minor, augmented, diminished aspect of intervals and chords. This, of course, depends upon time and the ability and desire of the students to explore further.

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# Musical Ability Utilization Project Curriculum Material Units I - X

M.A.U.P. Bd. of Ed. exp. mat. 8/68 Louise C. Kirschner

UNIT I - A

Every subject has a language of its own. Every language has an alphabet or set of signs which are used to <u>communicate</u> ideas. When we can't find a word to express exactly what we mean we sometimes make one up. In this way the language of music grew and grew.

Later on we will tell the way some of these signs or symbols and musical words first <u>developed</u>. Now let us learn some of the basic signs of music.

L.	The	Staff	
			This consists of 5 lines upon or
			near which we place the notes of
			 music.

- 2. Clefs In music we use 3 clefs:
  - the G clef or Treble Clef
     the F clef or Bass Clef

**2** - the C clef

- 3. (A) Key Signature Accidentals at beginning of line of music
  - (B) Accidentals placed before notes
    - b the <u>flat</u> which tells us to lower a note a half step or half tone
    - the <u>sharp</u> which tells us to raise a note a half step or half tone
    - h the <u>natural</u> which tells us to <u>cancel</u> out a # or a
- 4. Time Signature At the beginning of a piece of music you will see two numbers, one above the other. These tell us about the rhythm or beat and meter or measure of the piece.
  - 3 6 2 4 4 8 are some of the time signatures you will find in your music. The top number tells us how many beats to a measure. The bottom number tells us what kind of note gets one beat.

LCK/dc Rev.



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UNIT I - A

5. The notes o 1 , P d III etc.

These are the signs we place on the staff. They tell us by their place what sound, high or low, we are to sing or play. They tell us by their shape how long we keep singing or playing the notes.

The main egg-shaped part is called the  $\frac{\text{head}}{\text{Some}}$ . It may be open or filled in. Some have  $\frac{\text{stems}}{\text{stems}}$  attached. Some of the stems have a flag or double flag attached.

6. Rests - For every kind of note there is a rest. When we see the rest we stop playing or singing as long as the rest tells us to.

- is a whole rest

🗻 – is a half rest

🗼 – is a quarter rest

7 - is an eighth rest

7. Measures and bar lines

The straight up and down lines are bar lines. They measure off the number of beats the top number of the time signature tells us.

Sometimes we see two of these together | OR | . This is called the double bar. This tells us that a section of music is ended. It doesn't always come at the end of a measure.

8. Repeat Signs

These tell you to sing again, or play again, the music between the signs. If we want you to go back to the beginning and sing the whole section over we don't bother to put the first sign in. There are other repeat signs you will learn about later. Most of them have the two little dots.

LCK/dc Rev.



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UNIT I - A

Look at the piece of music which follows:



- (1) It is written upon a 5 line staff
- (2) is the clef
- (3) is the key signature
- (4) is the time signature, 4
- (5) two kinds of notes are used the quarter note and a half note
- (6) there are no rests in this music
- (7) bar lines divide the music in measures of 2, quarter note values (a half note equals 2 quarter notes)
- (8) repeat signs tell you to sing the last 2 measures and then sing them again

If you can <u>read</u> music you will find that this is the beginning of "Brother John" or "Frère Jacques."

Look at a music book and see if you can understand a little better what the language of music says.

# VOCABULARY:

developed symbols consists of notes flat sharp rhythm beat meter flag double flag stems read Accidentals head double bar

LCK/dc Rev.

Signature

communicate

cancel

measure

natural



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- UNIT I - A

NAME	CLASS	SCHOOL_
DATEINSTRUMENT PL	AYED	VOICE SECTION
Answer as many questions as you you can't do. When you have fi and find the answer.		
l. We call this		
2. Identify the following sign		
(a) # (b) 6	_	
(d) 9;	_	
3. Write the musical signs for	the following	•
(a) natural sign	· · ·	
(b) whole rest		
(c) repeat sign		
(d) bar line		
		LCK/dc Rev.



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UNIT I - B

#### THE BEAT

In Unit I-A, number 4, the Time Signature is mentioned. If you open any music book, at the beginning of each piece you will see two numbers, one above the other. This is the <u>Time Signature</u>. In most pieces the <u>time signature</u> appears only once, at the beginning.

The top number tells us how many <u>beats</u> there are in a <u>measure</u>. (How fast or slow these are is <u>decided</u> by the <u>tempo</u> sign which you will learn about later.) If you watch someone leading or <u>conducting</u> a singing group or a band you will see the leader waving his hand or a stick called a <u>baton</u>. This is done in a regular, even way. The conductor is "beating time", keeping a regular rhythm going.

A song we all know is "America". Look at the music below:



The time signature is 4 - the top number 3 tells us the rhythm or beat. As you sing the song to yourself move your finger along the wavy line below the words. You should feel the "3 beat".

Try "Are you sleeping?"



(Notice that a note that looks like this gets one swing or beat and one that looks like this gets 2 swings)
You will learn about notes and note values in Unit II. This has a top number 2 and is a "2 beat".

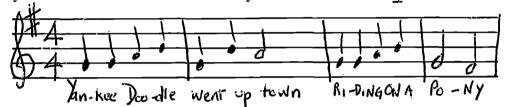


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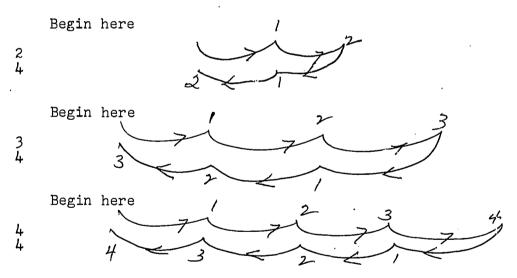
UNIT I - B

page 2

Try Yankee Doodle and see if you can feel the 4 beat:



Now try your 2, 3 and 4 beats on the following patterns, following the arrows:



You should feel a stronger beat each time you turn back or start again. This stronger feeling is an accent. It is these accents or strong beats and the weaker beats that follow it, that give our music a pulse or rhythm.

# **VOCABULARY:**

Time Signature beats measure appears decided tempo conducting baton rhythm beat

LCK/dc Rev.



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- UNIT I - B

NAM	IE				_CLASS		_SCHO	OOL		
DAT	'E			_INSTRUM	ENT PLA	YED		_VOICE SI	ECTION	
you	wer as m can't d find th	lo. Wi	nen yo	ons as yo ou have :	o <b>u c</b> an i finished	from mem l go bac	nory.	Check t the unit	the on mate	es rial
1.	3 2 4 4	6 8	are o	alled?						
2.	Write t us the	he num number	bers of b	from the	three the mea	example sure:	s abo	ve which	tell	
					<del>-</del> -		•			
3.	We call measure	the s	strong	beat we	feel a	t the b	eginn	ing of e	ach	

LCK/dc Rev.



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C - UNIT I

NAME	<u> </u>	CLASS	SCHOOL			
DATE	<u> </u>	INSTRUMENT PLAYED	VOICE SECTION			
you	ver as many of can't do. I		memory. Check the ones back to the unit material			
1.	The top number of the time signature tells us how manyin a measure.					
2.	Name the for	llowing:				
	1)	<del></del>				
	2)   : :					
	3) <b>b</b>					
	4) 2 6 3					
	5) #					

- 3. Write a staff
- 4. Write a G clef or Treble Clef.
- 5. We call the strong beat an \_\_\_\_\_



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#### UNIT II - A

#### SOME MUSICAL SYMBOLS

Written music is really picture writing. The signs or musical symbols we use were developed as they were needed to give the performer clear, exact directions as to how to sing or play the music. If the signs were not clear enough, someone invented a new one to add to those that already existed. In <u>Unit III</u>, you will learn where and how some of these symbols started. In <u>Unit III</u>, we are going to learn some of these symbols and see how they are used.

#### A - The Staff

We place our musical symbols on or near a  $\underline{\text{staff}}$ . The staff consists of 5 lines. Two or more of these 5 line  $\underline{\text{symbols}}$  are called  $\underline{\text{staves}}$ . A staff or long pole or stick is something we lean on to make walking easier, especially when walking up or down hill. In the same way, the musical staff is the symbol for what the notes lean on as they tell us to go up and down in pitch.

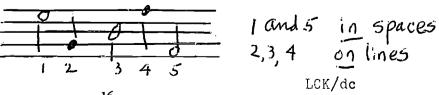
This is a picture of the staff. You can count the 5 lines. You can also count 4 spaces between the lines.

The Music Staff If you hold your hand so that the fingers go from left to right like lines on a piece of paper, you will see that you carry around with you 2 of these musical staves all the time.

When we climb or scale the staff, we start at the bottom and go up. In the same way, we name the lines and spaces of the staff.

fifth line	fourth space
fourth line	third space
third line	second space
second line	first space
TIPSU LINE	

BE CAREFUL! When we write words on paper with lines, we try to place the words so that they rest on the line; that is, in the space between 2 lines. In music, when we write on the line of the staff, the line must go right through the head of the note. The head of the note is the egg-shaped symbol, sometimes filled in, sometimes open. If the head is between 2 lines, we say that the note is in a space.





M.A.U.P. Louise C. Kirschner 8/68 S - UNIT II - A CLASS NAMESCHOOL INSTRUMENT PLAYED DATE VOICE SECTION Answer as many questions as you can from memory. Check the ones you can't do. When you have finished go back to the unit material and find the answer. Draw a staff 2. Put a  $\underline{X}$  in the 2nd space 3. Put a 0 on the first line

Put a O on the 5th line

LCK/dc Rev.



4.

Write a note with an open head and a stem going up \_\_\_\_\_.

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## UNIT II - B NOTES



On the 5 line staff above there are 10 notes.

Note 1 is in the fourth space. Note 6 is on the second line. Note 2 is on the first line. Note 7 is on the fourth line. Note 3 is on the third line. Note 4 is in the first space. Note 5 is in the second space. Note 10 is in the fourth space.

Notes 2 and 8 are open or white notes and look like this Notes 3,6 and 7 are white notes but each has a stem attached. Notes 1,4,5,9 and 10 are filled in or black notes. They all have stems. Notes 4,9 and 10 also have a little flag attached to the stem.

When the stem goes up from the head as in notes 4,5,6 and 9, it is attached to the right side of the head.

When the stem goes  $\underline{\text{down}}$  from the head as in notes 1,3,7 and 10 it is attached to the left side of the head.

The flags are always attached to the right of the stem.

When we use the kind of note that requires a stem, we try to place the stem so that it stays within the staff as much as possible. When we write our notes on the top half of the staff like notes 1,7 and 10 we usually place our stems down from the head of the notes. When we write notes on the bottom half of the staff we usually place our stems going up as in notes 4,5,6 and 9.

When we write on the third or middle line of the staff we may place the stem up as in note 9 or down as in note 3.

There are special cases that don't follow the usual rule. You will see later on that there is always a reason why we change the rule and the change always comes in order to make something clearer.

OUR MUSICAL DICTIONARY
white notes stems
black notes flag



	.U.P. ise C. Kirsch 8	ner			
S -	UNIT II - B				
NAM	E		CLASS	_SCHOOL	·
DAT	EIN	STRUMENT	PLAYED	VOICE S	ECTION
you	wer as many q can't do. W find the ans	hen y <mark>ou</mark> h	as you can fi ave finished	rom memory. go back to	Check the ones the unit material
	1	2	3	4	5
,					
					0
1.	Use the open Place a note				,
2.	Place a note	on the 1	st line		
3.	Place a note	in the S	second space		
4.	Note 4 is	th	ıe		
5.	Note 5 is	th	ie		

LCK/dc Rev.



M.A.U.P. L.C.K. 12/66 exp. mat.

UNIT II-C Note Values and Rest Values

As you do this section of Unit II, look back at Unit II-B and the staff and notes at the top of the page. You will see 4 different kinds of notes.

Notes 2 and 8 are white notes without stems. These are cal Notes 3,6 and 7 are white notes with stems. These are cal Notes 1 and 5 are black notes with stems. These are cal These are cal and flags.

These are called whole notes.
These are called half notes.
These are called quarter notes.
These are called eighth notes.

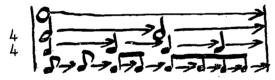
💋 is a whole note.

is a half note. It takes 2 of these to equal the time or <u>duration</u> of the whole note.

is a quarter note. It takes 2 of these to equal the time or <u>duration</u> of the half note and 4 to equal the <u>duration</u> of the whole note.

is an eighth note. It takes 2 of these to equal the <u>duration</u> of the quarter note, 4 of them to equal the duration of the half note and 8 of them to equal the duration of a whole note. Sometimes we join the flags together like this;

In the picture below the arrows tell you how long the notes last when compared to the others within one measure.



When we want the music to stop or rest for a time, with the beat or count going on, we use a sign called a rest. For every note value there is a sign for a rest of equal value.

The whole rest looks like this. It is usually placed hanging from the 4th line of the staff.

The half rest looks like this. It is usually placed resting upon the 3rd line of the staff.

The quarter rest looks like this, The quarter rest is written up and down or like this.

The eighth rest looks like this. \forall Like the quarter rest, it is placed across the lines of the staff.

(Sometimes, as a short cut, we use the whole rest to mean "a whole measure of rest" no matter how many counts or beats there are in a measure.)



S - UNIT II - 0		
NAME	CLASS	SCHOOL
DATE	INSTRUMENT PLAYED	VOICE SECTION
	questions as you can from When you have finished go nswer.	
1. d is a	note.	
2. 🔓 is a	note	
3. Write a who	ole note	
4. Write a hal	lf note	_
5. How many qu	uarter notes equal the dura	ation of a
5. How many que whole note:	uarter notes equal the dura	
5. How many que whole note:	uarter notes equal the dura	) (e)
6. On the star	uarter notes equal the dura? (b) (c) (d	(e)
6. On the star	(b) (c) (d)  ff above there are 5 rests he rests.	(e)



7.

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On the 3rd line write a half note.

In the 4th space write 2 eighth notes

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UNIT II - D

THE TIME SIGNATURE

In Unit I B, we mentioned the time signature. We learned that the top number tells us how many  $\underline{\text{beats}}$  to the measure.

The bottom number tells the <u>value</u> of the note that gets <u>one beat</u> or the <u>unit of beat</u>. If we have the time signature 4, we have (the top number is 3) 3 beats to a measure and (the bottom number is 4) the quarter note gets one beat and is the <u>unit of beat</u>.

The two numbers are called the <u>time signature</u> and the beat and count they tell us to use is the <u>meter</u>, or time.

We read the time signature like this. If we see 4 we say "three four".

If we see 4 we say "four four". If we see 8 we say "six eight" and so on. Always say the top number first and then the bottom number. Perhaps your teacher will let you look through your music books to find these time signatures and others as well.

# USING THE TIME SIGNATURE

In 4 meter there are 3 beats to a measure. A quarter note is the unit of beat. We give one beat for a quarter note or a quarter rest. A half note or half rest would get 2 beats. The dotted half note would get 3 beats. Try checking some of the songs or exercises in your music 3

books that have 4 meter. If there is no  $\underline{\text{note}}$  in a measure you should find a  $\underline{\text{rest}}$  that has the same value.

Look for simple songs in 4 meter. Check them to see if you find 4 beats to the measure and the quarter note as the unit of beat.

In 8 measure you will find 6 beats to the measure and the eighth note  $\hat{\mathbf{D}}$  as the <u>unit of beat</u>.

You may also find a sign that looks like this C . It is one of the old music signs which we will learn about later. It is the broken the circle and means the same as  $4 \cdot c$ 

Another old sign we still use looks like this . We call it the alla breve sign. It is pronounced ah-lah bray-vay. The words are Italian and mean (alla) according to the (breve) half note. We put it

into numbers like this 2. It tells us - 2 beats to the measure and a half note is the unit of beat. To the musician it usually means that we play a little faster.

# VOCABULARY:

beats one beat unit of beat time signature meter value alla breve broken circle

Rev.



M.A.U.P. Louise C. Kirschner 8/68 S - UNIT II - D NAMECLASS\_\_\_\_SCHOOL\_ INSTRUMENT PLAYED VOICE SECTION Answer as many questions as you can from memory. Check the ones you can't do. When you have finished go back to the unit material and find the answer. Write the time signature for the following: (a) three four (b) six eight (c) two four Circle the numbers that tell how many beats to the measure. (a) 8 (b) 4 (c) 4 3. Write C in numbers Write the musical sign for alla breve or 2



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### UNIT II - E

# DOTTED NOTES - DOTTED RESTS

We change the value of any note or rest by adding a  $\underline{\text{dot}}$  to it. We will tell you why the  $\underline{\text{dot}}$  does this in Unit III.



If you look at the song above you will see a series of notes that look like this  $\searrow$  . These are called "dotted half notes".

A half note equals 2 quarter notes in  $\underline{\text{duration}}$ . The dot tells us to add another quarter note's duration or value to the half note and hold it for  $\underline{3}$  quarter notes.



M.A.U.P. Bd. of Ed. exp. mat. 10/68 Louise C. Kirschner

### UNIT II - E

### page 2

Since the time signature of the song is 4, that is 3 beats to the measure and a quarter note (the unit of beat) gets one beat, the dotted half note which now equals 3 quarter notes in value and duration, takes the whole measure to itself.

- o. is a dotted whole note. The regular whole note equals 2 half notes. By adding the dot we make it equal 3 half notes
  - is a dotted half note. The regular half note equals 2 quarter notes. By adding the dot we make it equal 3 quarter notes.
  - is a dotted quarter note. The regular quarter note equals 2 eighth notes. By adding the dot we make it equal 3 eighth notes.
- is a dotted eighth note. The regular eighth note equals 2 sixteenth notes. By adding the dot we make it equal 3 sixteenth notes.

When we write a rest that stands for the same duration as the dotted note we could add the dot to the rest sign and have the value change in the same way. Usually the dot isn't so easily seen after a rest sign, so, to make it easier for the player to read the music, we usually write out the <u>rest duration</u> in rest signs. See the table below:

DOTTED NOTE	EQUAL IN VALUE TO	DOTTED REST	EQUAL IN VALUE TO AND USUALLY
0)	o + d orddd	- ·	WRITTEN AS BELOW
d.	d + d oe d d d		# + # #L + £
1.	J + D OR DD POR		£ + 7
P.	P+ PORPOPOR	<b>,,,</b>	7 + <del>7</del>

# VOCABULARY:

whole note half note quarter note eighth rest

note value rest rest value sixteenth note

dotted notes time signature duration quarter rest sixteenth rest

meter eighth note whole rest half rest



UNIT II E

NAME	CLASS	SCHOOL	
DATE	INSTRUMENT PLAYED	VOICE SECTION_	

Answer as many questions as you can from memory. Check the ones you can't do. When you have finished go back to the unit material and find the answer.

- 1. Name the following:
  - a) d.
  - b)
  - c) \{
- 2. Adding a dot to a note or rest changes its
- 3. If O. is equal in value to O or O O show what notes are equal in value or duration to the following:
  - a) , = \_\_\_\_\_ or \_\_\_\_
  - b) d, = \_\_\_\_\_ or \_\_\_\_
  - c) ), = \_\_\_\_\_ or \_\_\_\_



U - 1	TINU	II
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NAME	ì				CLASS_	 SCHC	OL			
DATE	<u> </u>		INS	TRUMENT	PLAYED_	 VOI	CE SEC	TION		
you .	.can†	t do.		you have	you can finishe					
1.	The	٥	is a							
2.	The	d.	is a			 . It e	quals .		<del>-</del>	

4. On the staff place:

3. Write a staff

- a) a whole note in the 4th space
- b) a quarter note on the 2nd line
- c) a whole rest
- d) a dotted half note in the 3rd space
- Fut a circle around the numbers that tell how many beats in the measure
  - 6 3 2 4 8 4 8 4



M.A.U.P. Louise C. Kirschner 10/68 C - UNIT II \* CLASS SCHOOL NAME INSTRUMENT FLAYED\_\_\_\_\_VOICE SECTION\_\_\_\_ Answer as many questions as you can from memory. Check the ones you can't do. When you have finished go back to the unit material and check the answer. Name the following accidentals. a) 2. 3. Circle the figure that tells the number of beats in the measure. 4. Write a staff a) How many lines did you make? 5. How many spaces are there?\_\_\_\_\_ Write a dotted whole note 7) Show the value of the dotted whole note in

\* (C) before the test number means the test includes everything  $^{\rm LCK/dc}$  from Unit I and II



half notes

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UNIT III - SOME "HOWS?" AND "WHYS?" IN THE STORY OF MUSIC

# A. INTRODUCTION

Perhaps one day you will want to read and learn more about the very beginning of music and what we found out about it by digging up old <u>instruments</u>; <u>statues</u> of people holding those instruments, and paintings of people making music. Most people <u>developed</u> some kind of musical instruments. There were generally two kinds of music the music people made for their own <u>amusement</u> and the music which became part of their <u>religious festivals</u>. Later a third kind of music grew up, the <u>martial</u> music or the music of war. This was meant to give courage to the soldiers and also to give signals during the fighting.

The first nation of Europe to develop a great <u>culture</u> was Greece. Music was part of that culture. Their music was very simple if we compare it with the music we make today. They developed string and wind instruments and also sang. They even developed a <u>system of notation</u> - the writing down of music. They used the letters of their <u>alphabet</u>. We are not sure today exactly what tones they produced but <u>musicians</u> have tried to figure out the sound of their music from the instruments they left behind them. They are <u>probably responsible</u> for the fact that we also use letters of the <u>alphabet</u> to name our tones.

The next great nation to rise in Europe was that of the Romans. They lived in and near the city of Rome, in that part of Europe which we call Italy. They conquered the Greeks and brought back to Rome many of the Greek cultures. They also brought back with them many captives whom they made their slaves. Among these slaves were many educated Greeks and they were used to teach what they knew to the children of the Romans. One of the things they taught them was music.

The instrument we most connect with the Greeks is the  $\underline{lyre}$ . It is a stringed instrument somewhat like a small harp which was held in one arm and then plucked by the fingers of the hand connected to the other arm.

See if you can find a picture of the lyre in some music book or in a library book. Copy it and paste it into your notebooks.

The Greeks, also developed many different kinds of "pipes" made from the reeds near the river banks. See if you can find a picture of the "Pan pipes", or other wind instruments of the Greeks. Try to draw their picture too.

OUR DICTIONARY.

developedinstrumentsmartialalphabetmusiciansamusementstatuescultureproducedprobablyreligiousfestivalseducatedlyreconnectedconqueredcaptivessystem of notationresponsible



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2	/	6	7			

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UNTI	 n

NAM]	CLASSSCHOOL	
DAT	INSTRUMENT PLAYEDVOICE SECTION	
you	ver as many questions as you can by memory. Check the ones can't do. When you have finished go back to the unit material find the answer.	
1.	Name 2 of the things that tell us how people made music	
	many years ago.	
	1.	
	2	
2.	What was the first nation of Europe to develop a great culture?	
3.	To what other European nation did this culture pass?	
4.	What instrument do we connect with the Greeks?	
5.	What is meant by a "system of notation"?	
6.	Who is responsible for our using letters of the alphabet to name the musical tones?	



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UNIT III - B - RELIGION AND MUSIC

People have always made music and danced as part of their religious worship. The rise of one particular religion in Europe brought us the beginning of our system of music and of the notation or writing down of the music in such a way that there is little question about how the music should sound.

When the religious men came into Europe bringing the new Christian religion, they brought with them the Old Testament of the Bible and the new Christian teachings which were to broome the New Testament. They also brought the music of the religious services. As the new teachings grew, new music was added to the services. The new teachings were started in Greece and in Rome. Not being able to agree on all points of the service and teaching, the "Church" split into the Church of Rome and the Greek Orthodox Church. The Romans were now the stronger nation and had sent their soldiers all over Europe. When the Roman Catholic Church was firmly established, missionaries brough the new religion to the Roman settlements and colonies of Europe.

The <u>language</u> of the Romans was <u>Latin</u>. Latin became the language of the services and music of the church. In order to keep the services and music the same no matter how far away from Rome the services were being held, Latin was used in all the churches. (It was only a few years ago that this was changed so the services are now held in the language of the country.) Even wgen the language of Rome became Italian, the language of the Church remained Latin. The <u>hymns</u> of the service were sung in Latin.

Look in some of the Song Books and see if you can find songs or hymns which have Latin words. One song you will find among the Christmas Carols is Adeste Fidelis - Come All You Faithful. See if you can find others.

OUR DICTIONARY.

Worship particular notation established Old Testament New Testament services missionaries settlements colonies language Latin hymn



religious worship? \_\_\_\_\_ and \_\_\_\_

4. In order to keep the services the same in all churches

The religion and music of the Roman church was carried to the

the language of the services was always \_\_\_\_\_\_

2. What was the language of Rome?

until recently.

settlements and colonies by \_\_\_\_\_

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M.A.U.P.

3.

Louise C. Kirschner

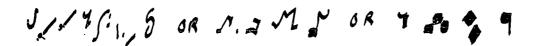
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UNIT III - C NOTATION-THE WRITING DOWN OF MUSIC

Before the <u>invention</u> of printing as we know it today, every book had to be written out by hand and every copy of a book had to be written out by hand. Books were rare and very <u>expansive</u> and not many people could read. Most of the books that were produced were copies of the Bible and the religious services. Most of the copying was done by <u>monks</u> who were especially trained for this.

When it was decided that the music for the services should be the same in all the churches, they began to make up all sorts of neumes or signs to show how the music should sound. The word neumes comes from the Greek. It means cues or hints and is pronounced nee-youms. We have found at least 28 different kinds of neumes in the old books. They were made up of signs that went up, down, sideways, crosses, dots and all kinds of "pothooks". They were hard to understand and not very exact. They were really just hints about how the music was to be sung. Most of the people who taught the music to the choirs or choruses and sang the music themselves were trained in the Roman churches and used the neumes to remind them of what they had learned.

This is what some of the neumes looked like.



Perhaps you will be able to find some pictures of neumes in the library in books of Music History.

OUR DICTIONARY.

invention neumes choirs pronounced produced monk cues choruses expensive



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Ī	TINU	III	С	

NAME	·	_CLASS	SCHOOL	
DATE	INSTRUMENT PLAY	ED	VOICE SECTION	
you (	er as many questions as you can't do. When you have for find the answer.	a can from i inished go	memory. Check the ones back to the unit material	
	What is the name we use for			
	What great invention makes have books?	-	e for us all to	
3. V	What is another name for a	chorus of	singers?	
	Why did they begin to write above the words?		nts or <u>cues</u> for music	



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UNIT III - D THE STAFF

Some monk, whose name no one knows, decided to be very neat in his copying of the neumes over the words. Over the words he drew a red line and gave it the name  $\underline{F}$  This F stood for a <u>definite</u> note and sound. This was the start of the staff.

A monk whose name we do remember was Guido d'Arezzo. He was a teacher of music and singing and many of the things he thought up are still in use today and have strongly  $\underline{\text{influenced}}$  our music. It was Guido who saw the  $\underline{\text{importance}}$  of the  $\underline{\text{red line } F}$  and added a yellow line above it which he called C. Two more lines, black ones, were added so that the staff looke like this.

(yellow line)	C	
(black line)		
(red line)		
(black line)	<i></i>	

At first only the lines were used for notes. It was Guido who saw that the spaces in between the lines could also be used as we do today. He <u>simplified</u> some of the neum or note shapes so they were easier to understand.

When we tell you about  $\underline{\text{scales}}$  and the "do, re, mi," names of the notes we will tell you more about Guido because it was Guido who gave us the "do, re, mi," names. We will show you where he got them.

More and more lines were added to the staff and it took many years until it settled down to our  $\underline{Grand\ Staff}$ . This is two 5-line staves with the middle C between, making eleven (11) lines in all.

CUR DICTIONARY.

definite simplified neum Grand Staff importance influenced scales



UNIT III D	
NAME	CLASS SCHOOL 6
DATEINSTRUMENT PLAYED_	VOICE SECTION_
	can from memory. Check the ones ished go back to the unit material
1. Who was the monk who gave us	many musical ideas?
2. What was the first definite	line of music?
3. Who added the <u>C line</u> to the	musical staff?
4. What do we call the <u>ll-line</u>	staff?
5. Why was Guido interested in	the writing down of music?

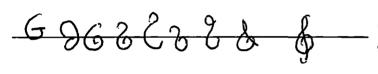


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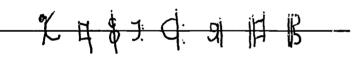
UNIT III - E

THE CLEFS

In the story of the staff we told you about naming of two of the lines, the F line and the C line. About 300 years after Guido d'Arezzo someone, somewhere added the letter G to show another point in the set of lines which made up the staff. These three letters became our key points for placing tones on the staff. In some very old music you may see other letters used but we don't use them today - only the G, F and C. Below you will see some of the changes they went through in writing or printing them until they began to look like the signs we use.



This is the G clef. This is also called the treble clef.



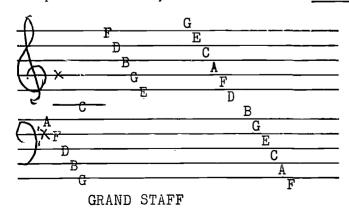
This is the C clef and is also called the Alto clef. It is used mostly in writing music for the viola

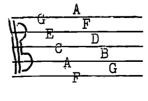


This is the F clef, Also called the Bass clef. It is used in writing music for the male voices and deep sounding instruments like the cello and the bass violin.

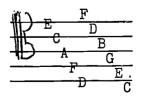
The word "clef" is a French word that means "key". In order to make it clear which meaning of the word we use, we call the signs that tell us where to locate the G and the F and the C by the French name. The word "key" we use to tell us where the scale begins. You will learn about that later on.

We mentioned in Unit III - C, that the Grand Staff has two 5-line staves and the middle C line between the staves. The G clef has settled down on the second line of the upper staff and the F clef has settled on the fourth line of the lower staff. The C clef is still movable. Wherever we put that clef, that stands for Middle C. Look at the picture below:





VIOLA CLEF



LCK/dc rev.

WOGA PULARY:

key

clef

UNIT III E				
NAME		CLASS	SCHOOL	
DATE	INSTRUMENT PL	AYED	VOICE SECTION	
Answer as many you can't do. and find the a	When you have	you can from finished go	memory. Check the ones back to the unit material	•
	B	ich the follo		
2. What does	the word "clef	"mean?		_
3. Where do v 1) 13 2) 9:	ve ususlly find	the		
4. Which 2 of	f our 3 clefs w	vere est <b>a</b> blish	ned first?	
		and		
5. In the Vic	ol <b>a clef,</b> where	e is Middle C	?	_



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#### UNIT III - F THE DOT

The first music being written out as our system of writing notes was born was the music of the church service. No bar lines were used and no time signature was needed because all the music was in a free rhythm or in a triple beat -. Today we would show this by writing 3 as the top number of our time signature. When men wanted to use a duple or 2 beat measure, signs had to be found to show the difference.

In the church a circle, **O**, stands for the Holy Trinity and the circle is considered "perfect" because it has no beginning or end. They used the **O** to show 3 part time. For duple time or "imperfect time" they broke the circle and used the sign <u>C</u>. Today this sign has come to 4

mean 4 and another sign that come to mean 2. These are the only time signature signs we still use once in a while instead of numbers.

But the O! It is still around. In Unit II, we showed the O or whole note which equals 2 half notes or 4 quarter notes or 8 eighth notes and so on, thrown 16th notes of 7 or 32nd notes 7 and so on, always by two's. How were we going to show a note that was equal to 3 quarter notes or 3 half notes?

Since O stood for 3 they put the O after any note or rest to tell the performer to hold the note longer, to make the whole note "equal to" 3 half notes, the half note o equal to 3 quarter notes. Little by little, this became smaller and smaller so we wouldn't confuse it with a note until it became only a dot, ( , ) which you will see very often in your music books.

VOCABULARY: Triple duple



UNIT III F

NAME_	C	LASS	_SCHOOL
DATE_	INSTRUMENT PLAY	ED	_VOICE SECTION
you c	er as many questions as you c can't do. When you have fini find the answer.		
1. T	The sign C stands for the t	ime signature	-
2. 2	can also be shown as the s	ymbol	
3. I	The O which stood for "perfe has become the	ct time" or 3	- beat measure
4. D	Ouple time means	beats.	



Π	ידעוו	TTT

NAME	CLASSSCHOOL
DATE	INSTRUMENT PLAYEDVOICE SECTION
you	wer as many questions as you can from memory. Check the ones can't do. When you have finished go back to the unit material find the answer.
1.	Name the three letters from which our clef signs developed
2.	The monk was a teacher of music.
3.	The used letters of their alphabet to name their musical sounds.
4.	The dot comes from the O which means
5.	The first definite line of music was the
6.	The Greeks brought the study of music to
7.	The string instrument of the Greeks was the



M.A.U. P. Louise C. Kirschner 10/68 C \* UNIT III CLASS SCHOOL NAMEDATE\_\_\_\_INSTRUMENT PLAYED\_\_\_\_VOICE SECTION\_\_\_ l. Identify the following: a) b) d) e) 2. Write the musical sign for: a) flat b) whole note c) bass clef d) e) quarter note \_\_\_\_\_

LCK/dc



3.

The three uses for music were

to name their musical tones.

The letters of the alphabet were used by the

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UNIT IV - THE "NOTES" WE SING AND PLAY

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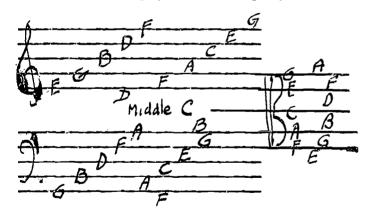
ouise C. Kirschner A-PITCH AND LETTER NAMES

The writing of notes "high" and "low" came from the feeling inside the singer that when he sang certain tones he felt them high in the head. When he sang other tones, he felt them lower in the head or in the chest. It's possible that when the leader of a choir wanted certain tones he used a hand signal to show this, like the hand signals some of you are learning today.

When neumes were first <u>developed</u> they were meant to show how the tones moved around inside our head and chest and it was most natural that this remained so when the staff developed.

If you will use your Grand Staff chart you will see how the letter names are used to identify the different lines and spaces of the staff. You will notice that there are 4 G's, 3 B's, 3 C's and so on, represented on the picture. Actually, by drawing more of the short or ledger lines, we can picture even more G's, B's, C's and so on, if we wish. Later we will tell you why we call one particular C - Middle C and count our tones up and down from Middle C.

Now let us try to learn the names of the lines and spaces of our staves with the G clef, F clef and C clef. People have thought of many ways to help us remember the names in order. Perhaps some of these will help you. Perhaps you will think of a way of your own.



We always count and name the lines and spaces from the bottom, up.

The lines of the G clef staff are called E G B D F The sentence used by some to help us remember this is Every Good Boy Does Fine. The spaces are F A C E which spells the word FACE

The lines of the F clef or Bass clef staff are G B D F A. The sentence used by some to help us remember is Good Basses Do Fine Always. The spaces of the Bass clef are A C E G or ACE G man.

We can spell words on the staff. Some of you may even be able to spell your own names.

### VOCABULARY

ledger (sometimes spalled leger)

developed identify remained particular remember sentence represented



# UNIT IV - A

On each line or staff there are spelled out words. Where the English words are, write in the notes. Where the notes are, write out the English words. Do the clef that you use first. Then try the other clefs.



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UNIT IV - B PART I

TONES AND SEMI TONES

STEPS AND HALF STEPS

We are going to learn about scales in Unit IVC. Before we do this it will help us to learn about the arrangement of tones according to pitch. The letter names A B C D E F G and the sharps and ing to pitch. The letter names A B C D  $\overline{E}$  F G and the sharps and flats like  $\overline{E}b$  or F#, are used to name the true pitch. The best to find out about them is by seeing a picture. The piano, organ The best way and accordion each have a keyboard which gives us a picture of true pitch and the arrangement of the tones. There will be pictures of part of the keyboard in this unit to help you. Perhaps your teacher will play the tones we are going to investigate for you. Maybe you

own a keyboard instrument and can try it for yourself. AB CI G

Look at the picture of part of the keyboard above. Iou will notice that the keys or levers are arranged in a special, regular way. There are three white keys with two black keys between that make up Group 1 and four white keys with three black keys between that make up Group 2. These repeat all along the keyboard; first Group 1, then Group 2, then Group 1 again and so on. Every key has a name according to its place in the group. (You will find out later on that we can call every key by at least 3 different names. The only one that has only 2 names is the black key between G and A.

If you count all the keys in Group 1 and all in Group 2, you will find that the complete set is 12 keys or semitones.

When we move to the right on the keyboard, a black note between 2 white keys has its sharp name. When we move to the left it has its flat name.

If we take the keys starting with C, the first white key in Group 1, and move to the right we see the following:

C - a white key C# or Db - a black key between C and D

Group 1 D - a white key

D# or  $E^{b}$  - a black key between D and E

E - a white key

F - a white key

F# or Gb - a black key between F and G

G - a white key G# or Ab - a black key between G and A

(10. A - a white key (11. A# or B# - a black key between A and B

(12. B - a white key)

VOCABULARY semitones

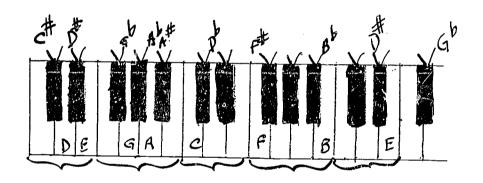
levers flat

sharp

LCK/DC

UNIT IV B Part I

NAME	CLASS	SCHOOL
DATEINSTRUMENT PLAYED	)	CE SECTION
Answer as many questions as you you can't do. When you have fir and find the answer.	can from memory nished go back to	. Check the ones o the unit material



Write in the missing "key" names.



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UNIT IV - B PART II

THE MAJOR SCALE

Since the name of the first note in a scale is the key to the arrangement of notes in the scale, we call the scale by the letter name plus a sharp or flat if one of them is used. A scale in the Key of E, tells us that the scale begins on E. A scale in the Key of A, tells us that the scale begins on A. If we say the scale begins on C#, you know that it is a scale in the Key of C#.

In maming our scales we also have to know whether it is a Major scale or a Minor scale. We add this to the name. We say the scale is in the Key of D Major or the piece of music is in the Key of D Major. We often don't bother to say the words "Key of" and just say, "It's in G major" or "It's in F# minor".

The basic scales are the major scales. The minor scales are based upon them. We will therefore learn about the major scales first. The easiest to understand and to see on the piano keyboard is the scale in the Key of C, because it uses all the white notes between C and the next C, and has no sharps or flats. It isn't always the easiest to play or sing but it is the easiest to understand. It will help set the pattern for all Major scales.

SETTING THE PATTERN OF THE MAJOR SCALE

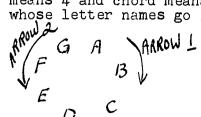
If we use the <u>ascending</u> scale, getting higher and higher in pitch, we will read the chart from the bottom, up. If we use the <u>descending</u> scale, getting lower and lower in pitch, we will read the chart from the top, down.

SCALE PATTERN CHART - MAJOR SCALES, USING THE Key of C Major AS MODEL Letters of the Moving from 1 note to the next Steps

Ascending scale Descending scale

	((C)		B to C C to B l half step
**	1 / 7 (		A to B B to A I Whole Steb
Tetrachord	Lici		G to A A to G I whole step
	~/ To \		I TO G G CO P T WHOLE SUED
Lower	\(\bar{E}\)	• • • • • • • • • • •	E to F F to E 1 half step
Tet.rachord	í à í	• • • • • • • • •	D to E E to D whole step
1001001010	(c)	• • • • • • • • •	E to F F to E l half step D to E E to D l whole step C to D D to C l whole step

You will see the words "upper tetrachord" and "lower tetrachord" written to the side. The word tetrachord comes from the Greeks. Tetra means 4 and chord means tones. A tetra chord is a series of four notes whose letter names go in sequence according to the circle of letters.



The circle of letters will give us the letter names of any scale. Go in the direction of <a href="Arrow 1">Arrow 1</a> for ascending scales. Go in the direction of <a href="Arrow 2">Arrow 2</a> for descending scales



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# UNIT IV - B Part II Continued

Now go back to the Scale Pattern Chart. Notice that the scale breaks into 2 Tetrachords. If we ascend, they are C-D-E-F for the lower and G-A-B-C for the upper. If we descend, they are C-B-A-G for the upper and F-E-D-C for the lower.

Notice that in the ascending scale the pattern of each tetrachord is the same - a whole step, a whole step and a half step. In the descending scale the pattern of each tetrachord is also the same, a half step, a whole step and another whole step. Between the two tetrachords, from F to G or from G to F, there is a <u>Whole Step</u>.

The rule for forming major scales is 2 tetrachords each formed the same way (ascending - whole step, whole step - half step; descending - half step, whole step., whole step) The two tetrachords are one whole step apart. In the next section we will show you how to apply this rule to all major scales.

### OUR DICTIONARY

Ascending Descending

tetrachord sequence

whole step half step

LCK/DC



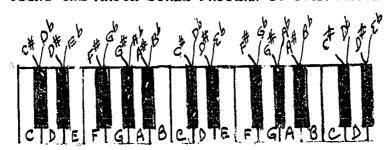
M.A. 6/67	.U.P.			
UNIT	IV - B Part II			
NANI	3	CLAS	SS	_SCHOOL
DATI	INSTRUMENT		_VOICE SE	CCTION
you	ver as many questions as y can't do. When you have find the answer.	you can finishe	by memory ed go back	r. Check the ones t to the unit material
1.		st note	of the so	cale is
2.	Find the definition for t	tetracho	ord. Writ	ce it here.
3.	Fill in the letter names tetrachords. Be careful are descending	missing • Some	g in the f are <u>asce</u> r	Collowing and some
	(a) A D	(e) B	_ G F	
	(b) D _ F _	(f) E	A	į
	(c) G F	(g) F	_ A _	
	(d) C _ E _	(h) D	C	
4.	Write the letters of the	ascendi	ing scale	beginning with
	A			
	F			
	D			
5.	Write the letters of the	descend	ding scale	e beginning with
	E			
	C			<b></b>
	G			



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UNIT IV - C

USING THE MAJOR SCALE PATTERN TO FORM MAJOR SCALES



We used the Key of C Major which has no sharps or flats and is shown on the keyboard by the white notes from C to the next C to develop a Major Scale Pattern. Now we will show you how that pattern can be applied to form any Major scale.

Using the keyboard picture above to help you, write in all the letters of the ascending scale from D to  $D_{\bullet}$ 

D \_ \_ \_ D

Now remember the rule for forming the ascending major scale. Two tetrachords arranged with a whole step between 1st and 2nd notes, a whole step between 2nd and third notes and a half step between 3rd and 4th notes. The two tetrachords are a whole step apart.

Let's begin. If you have put your letters in correctly you have DEFGABCD for the letters of the scale. From D to E is a whole step. (From white note D to the black note between D and E is a half step, from the black note to the E is another half step. The two half steps make a whole step.)

From E to F is a half step. We need a whole step here so we move to the black note for our other half step. We must call it by its F name since we cannot change the letter arrangement so it is now F#. Place the sharp sign after the letter F that you filled in above.

From F# to G is a <u>half step</u> and this is what we need to complete the first tetrachord of the Major Scale, ascending.

Now we move up a  $\underline{\text{whole step}}$  to start the second tetrachord and we are now on  $A_{\rm c}$ 

From A to B, moving through the black note between we have a whole step

From B to C we only have a half step so we go another half step to the right, keep the letter name C and call it C#. From B to C# is a whole step.

From C# to D is a half step.

By applying the pattern we find that in the Key of D major we have D E F# G A B C# D.



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UNIT IV - C Page 2

Let us try one more. Suppose we start this time on  $E^{\flat}$  to form the acale in the Key of  $E^{\flat}$  Major. We fill in the letters from  $E^{\flat}$  to  $E^{\flat}$ .

E V F G A B C D EV

From E  $\flat$  to F is a whole step. From F to G is a whole step

From G to A is a whole step. We need a half step here so we move back to the black note between and, keeping the name A, we must call it A. From A to B is 3 half steps -(A to A, A to the next black note, a half step, from there to B another half step, 3 half steps.) We only need 2 to make the whole step between the two tetrachords so we move back to the black note and give it its B name or B.

Now for the 2nd tetrachord.

From B to C is a whole step
From C to D is a whole step
From D to E is a half step
Our scale of E, ascending, is

E F G Ab

Bb C D Eb

Suppose we start from G this

Let us try one descending pattern. Suppose we start from G this time.

The letters are G F E D C B A G. Here we apply the rule, half step

whole step, whole step for each tetrachord and the whole step between the two tetrachords.

You will find that from G to F is a whole step and we must stop at the black note between and give it its F name or F#. All the other notes will remain white notes.

G to F# - half step F# to E - whole step E to D - whole step

D to C, the beginning of the next tetrachord, whole step

C to B - half step B to A - whole step

A to G - whole step The scale in the Key of G, descending, G F# E D C B A G

Instead of bothering to put the # or with each note, we gather them all together and write them on the staff after the Clef sign. This is the KEY SIGNATURE. When we write the letter names, we put the sign after the letter because we read it that way. When we write notes, we put the sign just before the note to remind us that we must play the note as a sharp or flat. If we put it afterwards, we might not see it in time.

You should have received MAJOR SCALE CHARTS for your notebooks. If you will examine them, you will find the Key Signature and you will see the little sign \* over the notes to which we add the sharps or flats of the scale as directed by the Key Signature. When you test yourself in the test that follows this section, try using these charts to check your work. Voice students may use either the String or Wind charts after they find the cleft in which they sing.

UNIT IV - C Test

NAME		CLASS	SCH00I	
DATE	INSTRUMEN'T	PLAYED	voice s	SECTION
Answer as many you can't do. and find the ar	When you have			Check the ones ne unit material
Try constructing	ng the followi	ing scales:		
"G Major" a	scending -			

"B Major" ascending -

- REMEMBER 1. Write your seven scale letter names.
  - 2. Check for the 2 tetrachords,
  - 3. Remember the rule of whole step, whole step, half step.
  - 4. Remember that we don't change letter names



UNIT IV -- Unit Test

NAME		CLASS	s	CHOOL_	- <u>-</u> -,	
DATE	_INSTRUMENT	PLAYED_		VOICE	SECTION_	

Answer as many questions as you can from memory. Check the ones you can't do. When you have finished go back to the unit material and find the answer.

- 1. Draw a staff Put a G clef at beginning of the staff
- 2. On staff spell out in letters the following words:
  - a) baggage
  - b) bead
  - c) added
- 3. Fill in missing letters in following tetrachords
  - a) A F -
  - b) A B -
  - c) F D C
  - d) E - A
- 4. Construct major scale, ascending, beginning on D D major
- 5. Construct major scale, descending, beginning on F F major



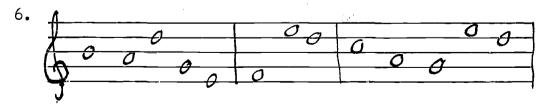
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C Test UNIT IV

NAM E	CLAS	SS	SCHOOL_	<del></del>
DATE	INSTRUMENT P	LAYED	_VOICE	SECTION

Answer as many questions as you can from memory. Check the ones you can't do. When you have finished go back to the unit material and find the answer.

- 1. Identify the following:
  - 3 6 2 1. 4 8 2
  - 2. Write a staff
  - 3. On the staff place a G clef
  - 4. \$ 9:
- 2 (a) Write the time signature "three four"
  - (b) Circle the number which tells how many beats to the measure
- 3. Write a dotted quarter note. After it the dotted quarter note write the notes it is equal to.
- 4. What sign is often used for 4?
- 5. The Grand Staff has \_\_\_\_\_ lines



Write the letter names of the notes below the staff.

\* C before the test number means the test includes everything in Units I, II, III, IV



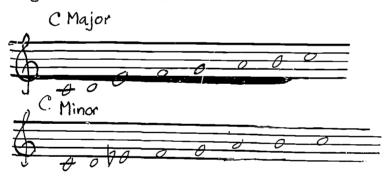
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UNIT V - MINOR SCALES A

In the last unit we learned about Major Scales and how we may start on any note and, following the major scale pattern, form our major scales. In this unit we are going to learn about the minor scales or modes. The word "mode" comes from the Italian "modo" which means style and is very close in meaning to the word mood. Music can express or make us feel emotions. Some music makes us feel happy and gay, other music is sad or spooky or exciting. The next time you go to the movies or listen to your favorite show on T.V., notice the background music and how it sets the "mode" for the story that will follow.

Minor scales seem a little sad at times and often have an oriental flavor.

If we lower the 3rd tone of any major scale by one half step, we are creating a minor scale.



Try playing or singing these scales and you will notice that the lowering of the 3rd note has given a sad sound to the first part of the scale. You can try this with any of the major scales and you will get the same effect. Minor scales created this way are the "parallel" minors to the major scale you started from. They have the same name but, as you will soon find out, they have different key signatures and are related to other major scales. Also, it is a very special minor scale that we create in this way. It is the "ascending melodic minor". Through use and alteration, 3 kinds of minor scales were developed and are in common use. They are (1) the natural minor, (2) the harmonic minor, and (3) the melodic minor. Perhaps you will learn later on how some of this developed. For now, we will learn what they are and how to form them.

#### VOCABULARY

modes oriental spooky emotions

express alteration



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A - V TINU

MAM	CLASS SCHOOL
DAT	INSTRUMENT PLAYED VOICE SECTION
can	ver as many questions as you can from memory. Check the ones you to to the unit material and the answer.
1.	The word mode comes from the Italian
2.	Which step of the major scale is changed to make-the scale into a parallel minor?
3.	Write the G Major Scale. Put in the G clef and Key signature.
4.	Make the change in the scale above, which will make it the parallel minor (G Minor). Put a check below the note you changed
5.	What is the name of the special kind of minor you created by changing the one note?
6.	Name the three kinds of minor scales
	1
	2
	3
	LCK/dc Rev.



## UNIT V - B THE RELATIVE MINORS (page 2)

## C. The Melodic Minor

As the name tells you, this was used in creating melody and singing lines. It was difficult to read and sing the jump or interval between the 6th and 7th tones of the minor scale so the 6th degree and 7th degree were both raised a half step in the ascending scale. In singing it seemed to the singers of the day a little strange to sing this in the descending scale so they returned the notes to their position in the natural minor. The melodic minor then, has two parts, the ascending scale and the descending scale. E minor melodic would be E F# G A B C# D# E ascending and E D C B A G F# E descending. If you examine the tables or minor scales you will see these rules observed.

REMEMBER: When you raise a natural, you

When you raise a natural, you add a #
When you raise a sharp, you make it double sharp, and use this sign, x
When you raise a flat, you make it a natural #

When you lower a natural, you add a b When you lower a sharp, you make it natural when you lower a flat, you make it double flat by and use this sign by

To find which major scale the minor is related to, take the 3rd note of the minor scale, natural, harmonic, or melodic. This will give you the name of the related Major Scale.

## VOCABULARY

harmonizing accompanying

creating difficult

ascending descending



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ONT	IT V - B		•	
NAM:	ME	CLASS	SCHOOL_	<del>-</del>
DAT	reinst	TRUMENT PLAYE	VOICE S	ECTION
one	swer as many questions es you can't do. When it material and find th	you have fini	memory. Check the shed go back to the	e e
1.	On what note or degree the relative minor?			t
2.	Write the letter name that make up the Key	es and accider of G Major	ntals (sharps or fl	ats) 
3.	Put a check under the	e 6th note. V	Vrite its name here	}
4.	Write the letter name minors of G Major	es and accider	itals for the relat	ive
	minor, harmonic minor, melodic ascending			
	minor, natural			
5.	Write the letter name make up the Key of F	es and accider	itals (sharps or fla	ts) that
6.	Put a check under the	e 6th note. V	rite its name here	
7.	Write the letter name minors of F Major	es and accider	itals for the relat	ive
_	minor, melodic ascending descending		•	



## UNIT V - C THE PARALLEL MINORS

A parallel major and minor have the same note names but may have their sharps and flats in different places. They begin on the same note and the first two notes are exactly the same. The minor scale has a 3rd tone which is lowered one half step from the parallel major. They have different key signatures. For instance:

We have seen that E Minor and G Major are related.

E Minor and E Major are parallel.

E Minor -- Natural E F# G A B C D E

Harmonic E F# G A B C D# E

Melodic E F# G A B C# D# E (ascending)

(descending) Read from right to left

E F# G A B C D E

E Major ----- E F# G# A B C# D#  $\cdot$ E

You see here how the ascending melodic minor and its parallel major differ in only one note. The minor has lowered the 3rd note which is what we mentioned in the very beginning of this unit. The second half or tetrachord of the E Major scale and the ascending melodic E Minor are exactly the same. It is characteristics like this which make it possible to easily slip from one scale into another, or modulate. If you go on to study Harmony seriously, you will find this happening. For now, it may answer the question in your mind as to how a composer starts a piece of music in one key and suddenly you are playing in another key without realizing how you got there. Of course, there are other ways we can modulate as well and we may see some of this when we investigate chords.

## VOCABULARY:

related parallel characteristics investigate modulating chords realizing modulate



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NAM	CLASSSCHOOL	
DAT	INSTRUMENT PLAYEDVOICE SECTION	
you	er as many questions as you can from memory. Check the one can't do. When you have finished go back to the unit mater find the answer.	
1.	Complete the sentence by putting in the missing words:	
	A parallel major and minor have the note names but may have their sharps and flats in places.	
2.	Write the name of the parallel minor next to the major scale names below:	
	(a) E major	
	(b) F# major	
	(c) B major	
3.	When we move from one scale to another in one piece of musi we	С
4.	The degree of the major scale is lowered to make the parallel natural minor.	

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C - UNIT V -

MAM	E	CLASS	SCHOOL
DAT	EINSTRUMENT I	PLAYED	_VOICE SECTION
you	wer as many questions as y can't do. When you have find the answer.	you can from mem finished go bac	ory. Check the ones k to the unit material
1.	Name the three kinds of m	minor scales	
	1		
	2 -		
	3		
2.	Circle the number which to of note gets 1 beat	tells the "unit	of beat" or what kind
	3 2 3 9 8 4 2 16	9	
3.	How do I make the half no notes equal 3 quarter not		s equal to 2 quarter
4.	Write the C major scale.	Put in the G c	lef and its key

5. Now make the change in the scale above that makes it the parallel C minor. Put a check below the note you changed





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UNIT VI - THE LANGUAGE OF MUSIC

exp. mat. 11/67 Louise C. Kirschner

EXPRESSING THE EMOTIONS OF MUSIC AND THE SIGNS WE USE TO DO SO

## Introduction:

Music can express an <a href="mailto:emotion">emotion</a> or feeling. Some music is gay and happy, some is sad. Some music is <a href="mailto:martial">martial</a> or war-like, some is funny. Think of how many other moods or feelings music can express: the feeling of "space", ghosts, summer breezes and so on.

When the composer writes his notes on the music paper he gives 1. a rhythmic pattern by time signature
2. a tempo or speed

and - shows you the "louds and softs" or <u>dynamics</u> by his <u>musical line</u> or changes in pitch 3. All of this is shown without adding one extra sign

The composer soon felt the need to change the natural flow for special effects - to wake up the listener and set a special mood. In this unit we will investigate all these musical emotions - the natural ones and how the composer adds interest by changing them.

## Emotions in the "Beat"and "Beat Changers"

### The Beat

There are two basic rhythmic beats - a two part or binary beat and a 3 part or ternary beat. Sometimes a composer asks for a one 1 beat and shows it by the time signature 2 or 4 or 8 etc., but here

the measures seem to arrange themselves into groups of 2 measure patterns or 3 measure patterns or 4 measure pasterns etc.

Any time signature which has a beat number greater than 3 like 4 or 8 is a combination of binary and ternary beats.

## 1. Simple binary beat

This is shown by a time signature whose upper or beat number is 2. The <u>pulse</u> or beat divides into a strong beat (which we will call  $\underline{S}$  and a weak beat  $\underline{W}$ ) so the binary is  $\underline{S}$   $\underline{W}$ 

## 2. Simple ternary beat

This is shown by a time signature whose upper or beat number The <u>pulse</u> divides into a strong or  $\underline{S}$  beat followed by a weak or  $\underline{W}$  beat and another weaker beat or  $\underline{w}$ , so the ternary beat is -S W w etc.

Every other time signature or beat is a combination of the 2 beat or the 3 beat and sometimes even the 1 beat. We will demonstrate this a little later.



UNIT VI - IA (continued)
page 2

## 3. Combinations of beats or compound time

Let us take up here some of these combinations which you will find most often in your music. Exchange the ? used as the bottom number for any of the note values - it could be a 2 or a 4 or an 8 etc.

## 4 a. The ? beat

This is a combination of 2 binary beats in one measure. Each binary is S W but the second binary is weaker than the first or s w so it shows as S W s w. Notice that the S s makes binary of its own 4 and the W w does also. In other words the ? becomes a much more 2 interesting pattern than the ?. If this weren't so, the music makers wouldn't have bothered to invent it. They could have stayed with a simple binary beat.

## b. The? beat

This is a combination of 2 ternary or 3 beat patterns or (5 WW 5 Wu). Notice the relation of the S beat and the w beats.

When we go very fast in a ? beat, we feel the 2 beat more strongly - as 2 groups of 3 beats each. This often becomes a marching rhythm or the rhythm of the <u>tarantella</u> - a fast dance rhythm in folk dances.

A good example of slow? beat is a Barcarolle or boat song expressing the motion of a boat being rowed or paddled slowly and smoothly.

# 4. The difference between 4 in 6 eighth notes and 8 in 6 eighth notes

Every beat can be divided. If I have 4 time signature it means 3 beats to the measure and the quarter note gets 1 beat. This 1 beat quarter note can be expressed as 2 eighth notes or 4 sixteenth notes and in many other ways. Let us take the quarter note divided into

2 eighths. We now have 4 but play or sing 6 eighth notes in the measure 6 just as we may with 8 time. Now see how we count the 2 different beats.

Notice that the 4th note in the measure in 4 is weak but in 8 it is a strong beat.

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page 3

Since all notation or writing out of music is supposed to make it easier to read and understand what the composer or music writer wants you to do, if a composer wants you to hold a note for half note

duration in 4 he can write a

In 8 he considers his unit the dotted quarter or which is equal to 3 eighth notes and would write the same music for duration or pattern like this

If we now place them one over the other like this -

In 4 a note that is held for a whole measure is dotted half

In 8 it should be d. or 2 dotted quarters tied together.

When composers or music copyists don't get careless and do what they should it makes it easier to feel and keep the beat. The same

thing holds true for <u>rests</u>. In 4 time I could write my rest pattern out like this -

The one exception in the rest pattern is something we mentioned back in UNIT II -. Sometimes, as a short cut we use the which stands for a whole rest, to mean whole measure rest no matter what the time signature is.

## VOCABULARY

binary combination demonstrate ternary compound pulse tarantella expressing duration pattern compare Barcarolle measures musical line 1 beat



### UNIT VI - IB

### BEAT CHANGERS

A straight, regular beat can become <u>monotonous</u>. The composer puts interest into his music in many ways and one of these ways is adding to or changing beat patterns.

## 1. The Accent or Stress sign

Try beating the following rhythms and see what happens. Clap each rhythm twice.

Remember to keep your natural strong beat for the first beat of the measure. If you don't do this you will find that you are moving the bar line over. Try this in Exercise 2. If you forget the strong beat on  $\underline{1}$  you will soon find yourself beating 2 3 4 1 2 3 4 1



## UNIT VI -IB (continued) page 2

Many dance rhythms are syncopated. This altering or changing of the beat pattern seems to give us the feeling of motion or movement in dance.

## 2. The Slur



The slur is a curved line which encloses a group of notes to make a special musical phrase. It has its own special use in the different kinds of music.

### Vocal

- we see there shill Lie
- It tells us to sing all the notes it encloses on one syllable or -
- 2. It tells us to sing a section with one breath.

#### b. Winds

It tells us to play the notes enclosed on one breath and tongue only the first note.

#### C. Strings

It tells us to play all the notes on one bowing.

Notice that the vocal use and wind use, for both of which we use breath, are very much alike. Beginning the group of notes with a fresh breath is called the "attack" and gives an added accent. Ending the phrase with less breath leads to softer performance at the end of the phrase than we might use normally.

In the strings, the slight push as we change bow direction with each slur gives a little added accent, but not quite as much as it does with winds or voices.

In voice or wind instruments this could very easily add syncopated beats to our music, if the slur begins on a weak beat. Vocabulary:

monotonous

syncopation strengthening

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syncopated

attack accent

softer little



# MELODIC FRAGMENTS TEST





## UNIT VI - 2A

### EMOTIONS IN TEMPO

We use the Italian word "tempo" to <u>indicate</u> the speed of music. There are two ways the composer shows this. One is by the M.M. or Metronome Marking, the other by a <u>word</u> that gives the <u>mood</u> or spirit of the music. Sometimes both ways are used at once. For instance, a composer may write just over the beginning of the music -

Brightly M.M. = 60

or

Maestoso M.M. = 45

## A. M.M. or Metronome Marking

Metronome means the rule of measure. There are many kinds of metronomes. Some of you may have seen the one which looks like this.



There is an upright rod which has number markings on it, the numbers getting bigger and bigger as we go down the rod. There is a movable weight that we can slide up or down on this rod to any number we select. If we give the rod a push or release it, it begins to swing back and forth. If we put the weight on 45, it will swing back and forth 45 times a minute. If we put the weight at 60, it will swing 60 times a minute and so on. As

it swings it also makes a little clicking noise with each swing. The electric metronome usually only makes the clicking noise for us.

Many musicians carry about with them a pocket metronome which looks like a pocket watch. We set the number and then push the wind-up screw down and a little rod swings back and forth and clicks softly.

If the composer writes M.M. = 60, he means that a quarter note, or combination of notes that make up the quarter note value, is played on each swing. We would play 2 eighth notes on one swing. We would use 2 swings to play a half note and so on. -



UNIT VI - 2A (continued) page 2

## B. Tempo Words

Most of the words used are Italian words. It has become the style lately for a composer to use his own language but the Italian names are still most common so we'll learn them first. For other languages, try using a little music dictionary to help you.

Most of these words not only tell us the speed but also the manner of performance. For instance -

Andante means going on Allegro means happy or gay Presto means fast Vivace means lively

Now let us see some of those you will probably meet most often.

Slow words -/

Largo (Lah,-go) - large, broad a.

Grave (Grah-vay) - serious, solemn b.

/ - slow C.

- Adagio (Ah-dah-jo) to place or lay down slowly, a kind of moving in slow motion
- Medium slow

Andante (On-don-tay) - going on

Moderato (Mod-er-ah-tge) - moderately

- Allegretto (Al-leg-ret-toe) a little fast
- Fast words Allegro (Ah-leg-row) - happy, gay, fast Presto (Préss-toe) - fast

We use other Italian words to slightly change the meaning of the tempo words.

poco (póe-koe) - a little 1. poco a poco - little by little piu (pee-oo) - more

assai (ah-sigh) and molto (mull-toe) - very or much

Some other words used to express an emotion in tempo are -

- con brio (bree-oh) with vigor con calore (cah-law-ray) with warmth con fuoco (foo-oh-ko) with fire con moto (moh-toe) with motion

con espressione (ess-press-ee-oh-nay) - with expression con amore (ah-moré-ay) - with love

Perhaps you can find some other words that show tempo and emotion to add to the lists above



## UNIT VI - 2B

## TEMPO - "CHANGERS"

Some of the most commonly used are -

- 1. a) Ritardando (Rit-ahd-ando) meaning getting slower gradually. This is usually abbreviated to Rit.
  - b) Rallentando (Rah-len-tahn-do) means the same as Rit. abbreviated to Rall.
- Accelerando (Ah-chell-er-ando) meaning getting faster and faster - abbreviated to <u>Accel</u>.
- 3. Ritenuto (Rit-en-oo-toe) meaning held back, a sudden slowing of pace
- 4. Rit. and Accel. often are followed by the words "poco a poco", slowing or speeding up little by little
- 5. When the composer wants you to return to the original tempo marking he writes "A Tempo" (Ah-Tempo)
- 6. Fermata (Fair-mah-toh) This actually means closed or stopIt is shown by this sign over the note the composer
  wants you to stop on and hold. He sometimes puts this sign
  over a rest which means hold the rest longer. The Fermata
  is sometimes placed over the bar line. It means stop before
  starting the next measure.

## VOCABULARY:



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Unit VI - 2

NAMI	E		CLAS	S	SCHO	)OL	_	
DATI	E	IN	STRUMENT PLA	YED		OICE SECT	,ION	
you	can	as many quest t do. When d the answer.	you have fin	can fr ished	om memory go back t	/. Check to the uni	the one t mater	s ial
1.		your VI - 2 ical terms.						
	a)	accelerando						
	b)	ritenuto			·			
	c)	allegretto						
	d)	presto						
	e)	roco a poco						
2.		we put the me swing back a				any times	will th	e

- . . . . . .
  - a) with vigor
  - b) more
  - c) serious, solemn
  - d) a little
  - e) getting slower gradually

3. Find the Italian musical terms for the following.



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## UNIT VI - 3A

### EMOTIONS IN DYNAMICS

The word  $\underline{\text{dynamic}}$  means force in motion and refers in music to the changes in  $\underline{\text{volume}}$  or amount of sound. These changes come from natural  $\underline{\text{sources}}$ .

- 1. The beat patterns give us  $\underline{S}$  beats and  $\underline{W}$  beats in louds and softs.
- 2. A line of music that gets higher and higher in pitch gets louder. A line that descends in pitch gets softer.

Notice the order of the two things that <u>influence</u> natural dynamics, <u>beat</u> and then <u>pitch</u>. When they work together they give us great variety of sound.

3. f - forte (four-tay) and p - piano

forte means strong or loud

piano means soft

In Italian they usually don't use a word to mean <u>louder</u>. Instead, they say "loud, loud" or forte, forte. For softer they say "soft, soft" or piano, piano. When we want <u>very loud</u> we could say forte, forte or <u>fortissimo</u> and <u>for very soft</u>, <u>pianissimo</u>. The <u>issimo</u> ending means <u>very</u>. It is often added to tempo words like <u>prestissimo</u> or <u>vivacissimo</u> meaning <u>very fast</u> or <u>very lively</u>.

We also use the Italian word  $\underline{\text{mezzo}}$  (meh-tso) with the forte or piano. Mezzo means medium. We use  $\underline{\text{M}}$  to show mezzo.



# UNIT VI - 3A (continued page 2

If we start from very soft and go on to very loud we pass through the signs like this -

<u>Italian Name</u>	English Name
ppp - Piano, piano, or pianissimo	3 piano
pp - piano, piano	2 piano
p - piano	piano
mp - mezzo piano	mezzo piano or medium soft
mf - mezzo forte	mezzo fort <b>e</b> or medium loud
f - forte	forte
ff - forte, forte	2 forte
fff - forte, forte or fortissimo	3 forte

All our dynamic signs from ppp to fff are comparative. There is no way we measure an actual <u>loud</u> sound as we do a tempo by M.M. (metronome marking). If a piece of music is generally very soft and <u>mysterious</u> and plays ppp and we suddenly find the marking mp, that mp may sound very loud to us! If a piece of music is boud and noisy and we suddenly find the marking mp, that mp may sound very soft to us.

## 4. The sign sfz

sfz is the sign for sforzato (sfort-tsaht). It means forced, or suddenly standing out. If it comes in a group of very soft notes it doesn't have to be a forte sound, a mf will stand out sharply here. It is the <u>suddenness</u> of the sound that is an <u>emotional expression</u>.



# UNIT VI - 3A (continued) page 3

## 5. Getting Louder

The Italian word crescendo (creh-shen-doe) means increasing in sound or getting gradually louder. We use the abbreviation cresc. or the sign .

Sometimes we put a dynamic sign at the beginning and one at the end (mp f) to give an idea of how much we want to increase.

## 6. Getting Softer

The Italian word decrescendo (day-creh-shen-doe) means decreasing in sound or getting gradually softer. Its abbreviation is decresc.

We also use the word diminuendo (dim-in-you-end-oh) which means diminishing. Its abbreviation is dim.

The decresc. or dim. sign is \_\_\_ and it, too, may have dynamic markings at the beginning and end. For instance, mf \_\_ pp, start mf and get softer and softer down through mp and p to pp.

These signs and are written below or above the whole series of notes affected. They may be short or long as needed. Look for them in your music books.

## Vocabulary:

dynamic volume sources influence beat pitch comparative loud mysterious forced suddenness emotional expression increasing abbreviation decreasing affected

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## UNIT VI - 3B CHANGERS OF NATURAL DYNAMICS

We have already met up with some of these.

- 1. The accent on a weak beat which causes syncopation changes the natural loud and soft.
- 2. The slur which causes an extra accent changes the natural dynamics.
- 3. In Section 3A, we told you that a line of music that rises in pitch (gets higher and higher) gets louder. A line that drops in pitch (gets lower and lower) gets softer. If the composer wants to change this he can put a decresc. or dim. or \_\_\_\_\_under the rising line. He can change the falling line that should get softer and softer by using a cresc. or \_\_\_\_\_.



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Unit VI

NAME	<u> </u>		CLASS	SCHOOL	
DATE	<u> </u>	INSTRUMENT	PLAYED	VOICE SECTION	
you		When you have		memory. Check the back to the unit	
1.		enerally three c to show emot		omposer adds to the	e notes
	1)				
	2)				
	3)				
2.	4 d.	missing bar li	ل له له		

- 3. 2 1 1 1 1 1 1 1 1 1
  - a) Put an S for Strong under the notes which occur in the natural strong beat of the measure.
  - b) Put an accent sign (<) over the weak beat to show syncopation
- 4. Give English names for:
  - a) f
  - b) crescendo
  - c) conbrio
  - d) allegro



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Unit VI - 3

NAME	CLASS	SCHOOL_
DATEINSTRU	MENT FLAYED	VOICE SECTION
		memory. Check the ones back to the unit material
l. In the following semusic to get <u>louder</u>		whether we want the
a) ff, mf, p		
b) mf, p. pp _		
c)		
d) p, pp, ppp _		
2. Write the signs for	the following:	
a) forced or sudde	enly standing out	
b) medium loud		
c) soft		
3. Write the decrescer	ndo sign or abbr <b>e</b> via	ation
4. Write another sign	that means the same	e thing

LCK/dc Re**v.** 



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NAMI	<u> </u>	CLASS		SCHOOL
DATE	INSTRUMENT PLAY	ED		CE SECTION
you	ver as many questions as yo can't do. When you have f find the answer.	ou can from finished go	memory. back to	Check the ones the unit material
1.	We can change our regular adding	beat and ca	ause synd	copation by
	(a)		·	
	(b)			
2.,,	Write the signs for the f	ollowing:		
	(a) getting gradually loud	der or croso	endo	
	(b) forte or loud			<del></del>
	(c) forced or standing ou	t		
	(d) slur			
	(e) Bass clef	1		
(1	For 3 and 4 you may consul	t your refer	rence tal	bles)
3.	Write the name of the parascale names below.	allel minor	next to	the major
	(a) E major			
	(b) C# major			
4.	Write the name of the rel scale name below	ative minor	next to	the major
	(a) G major			
	(b) E major			
5.	Put in missing bar lines			
	§ 112221	5 51 7		
	8 1 7 2 2 2 2 3	921 100		



UNIT VII -

## INSTRUMENTS OF THE ORCHESTRA OR BAND

## Introduction

If you throw a pebble into a pool of water in a special way you can see the little waves spreading out regularly in circles until they reach the edge of the water. If the body of water is very large, you may not see the waves as they near the edge but they are there and we could measure them with the proper instrument.

In the same way as the little pebble made waves in the water, any motion creates waves in the air around us. When the sound waves reach an instrument that can catch them, the waves are read and understood as a sound. Your ears are such instruments, and while some sounds are too low in pitch and others too high in pitch to be caught by the human ear you hear many sounds and immediately identify them, You know the sound of running water, slamming doors, the wind, spoken words, music and hundreds more. Telephones, radios, television sets are only 3 instruments that work on the principles of sound waves carried by air or on special cables.

When the sounds create waves in a regular pattern of vibration, we are creating music. When the pattern of vibration is not regular we call it noise. Human beings and most animals are born with a sound making instrument and a sound receiver. We learn to make noise and music, to imitate sounds around us. We will look at the <u>Voice</u> as an instrument as well as at other sound and music producing instruments that man has made for his pleasure and interest in this unit.

## Musical Instruments

Sound and music are produced in three main ways:

- By beating on a surface
   By setting columns of air in a tube in motion
- By setting stretched strings in motion

This brings us to the three main divisions of the family of musical instruments.

- 1. <u>Percussion</u> instruments or those that make sounds by being struck
- Wind instruments or those we blow into
- String instruments whose strings are set in motion in many ways

The human voice is a combination of these. We make sound by means of wind or breath passing over the vocal chords. (strings) We also make percussive sounds with the tongue and teeth.

As we take up the instruments you will find the Italian, French and German names of these instruments as well as the English names, and sometimes a little story about the instrument.



UNIT VII - page 2

When the composer writes the <u>score</u> or arrangement for what all the instruments are to play, it has become <u>customary</u> to put the groups of instruments in the following order starting from the top of the page:

- l. Winds
  - a) woodwinds
    - b) brasses
- 2. Percussions
- 3. Strings

Every group of instruments except percussions, has 4 basic instruments which correspond to the 4 voice parts we usually write for choral singing, soprano, alto, tenor and bass. Just as in the human voice there are other types or <u>categories</u> of singers, like baritone, contraltoetc., so there are more than just the 4 instruments in each group and some of them will be mentioned. Perhaps you will be interested in finding out more about each group especially if you play one of the instruments.

The general rule to remember is that the longer the pipe or string, the thicker the pipe or string, the lower or deeper the tones we can produce on the instrument. The thinner and smaller the pipe or string the higher the tones.

In wind instruments we can change the length of the instrument by closing holes cut into the tube with our fingers or by pushing down a valve stop in a brass instrument which cuts off a portion of the tube and makes it shorter.

We also affect the highness or lowness of pitch by how loose or tight we make our lips and how we blow the breath into the mouthpiece.

In string instruments, we can raise the pitch of any string by shortening it. This we do by pressing the string down to the finger board. The shorter we make the string, the higher the pitch.

We will begin with percussion instruments because they are the easiest to tell apart by sound.



UNIT VII - I

PERCUSSIONS

## 1. Bercussions

The percussion instruments are those we beat or strike. They are divided into 2 kinds; instruments which produce noise - not musical sounds, and instruments which produce tones of definite pitch or musical sounds.

## A. "Noise Makers"

l. The Snare Drum or Side Drum
This is the smallest drum in the orchestra
Italian name - Tamburo militare (Tom-boo-roe)(mee-lee-tah-ray)
French name - Tambour militaire (Tom-boor)(mee-lee-tair)
German name - Kleine Trommel (Kli-ne)(Trom-mel)

Its circular "shell" is made of brass. At each end is a "head" usually made of prepared animal skin or parchment. There is an arrangement of rods and screws and cords that keep the drum heads tight. The upper head on which we beat with drum sticks is called the batter-head. The lower head is the snare-head. The snares are thin gut (like voilin strings) or metal strings that can be brought up tight against the snare-head and when the drum is struck they vibrate and give it a brilliant sound.

2. The Bass-Drum
 Italina name - Gran cassa (Grahn - Cahsah)
 French name - Grosse caisse (Gross - Kess),
 German name - Grosse Trommel (Groh-ser Trom-mel)

This drum has a wooden shell. The parchments or skins are stretched at both ends over hoops and there is an arrangement of cords that allows the player to loosen or tighten the drum heads.

A heavy stick with a large knob padded with felt or some other soft material is used to beat the drum.

3. The Tambourine
Italian name - Tamburine (Tahm-boo-ree-no)
French name - Tambour de Basque (Tom-boor de Bahsk)
German name - Baskische Trommel or Tambourin (Bahsk-ishe Trom-mel)
or (Tahm-boo-reen)

You must all have seen this instrument. We usually associate it with gypsey music. There is a narrow wooden hoop to which the parchment is attached on one side only. The hoop is cut out at intervals and small tingling metal plates are inserted. These are called jingles and they hang in pairs on a metal wire so that when we shake the tambourine they jingle one against the other.

You play this in 3 ways.

1. By striking the head with the knuckles

2. By shaking the hoop to make the jingles sound

3. By rubbing the thumb on the head. This, too, causes the jingles to vibrate LCK/dc



UNIT VII - I. (continued)
page 2 page

## The Triangle

Italian name - Triangolo (Tree-ahn-go-low)
French name - Triangle (Tree-ahn-gle)
German name - Triangel (Tree-ahn-gle)

This is a small bar of steel bent into the shape of a triangle. It is held suspended on a string and it is struck with a small beater of the same metal. It gives a clear tone, like tiny bells.

## 5. The Cymbals

Italian name - Piatti (Pee-ah-tee) French name - Cymbales (Sim-bahl) German name - Becken

If we give you an old name for the cymbals you will understand their use. They used to be called "clash-pans". They are large circular brass plates. In the center of each is a saucer-shaped depression or dent on the outside of which is attached the strap by which we hold it. They are not absolutely flat. When we put two of them together only their edges touch. We make sounds on them in 4 ways.

1. By clashing them edge to edge with a sort of side-ways or

brushing movement.

By striking a single one with a drum stick
By rubbing the edges of 2 of them, one against the other
By hanging one up and using kettle-drum sticks on it.

#### 6. The Gong

Italian, French and German name - Tam-tam

This instrument comes to us from China. It is a broad circular plate of thick hammered metal. It hangs from a framework. It has a kind of mysterious sound when struck with a padded beater.

### 7. Castanets

Italian name - Castagnette (Cah-stah-nyet-ay) French name - Castagnettes (Cah-stah-nyét)
German name - Kastagnetten (Kah-stah-nyéten)

These started off as tiny finger cymbals in ancient times. In southern Europe they were made of the wood of the chestnut tree or castagna (cah-stah-nya) and were and still are very popular in Spain



UNIT VII - I (continued)
page 3

## B. Percussions which make "Musical Tones"

1. The Kettle Drums

Italian name - Timpani (Tim-pah-nee) French name - Timbales (Tam-bahl) German name - Pauken (Pow-ken)

The body of the drum looks like a big copper kettle or basin. The drum head is stretched across the top of the drum. There is an arrangement of screws which tighten or loosen the drum head and it can be tuned to a definite pitch or tone. They are made in 3 sizes, the smallest gives the high notes, the biggest the low notes and the middle sized one gives the in-between notes. In the big orchestras you will always see them in sets of 3. The player has 2 drumsticks. These are heavy and have padded knobs, the inside a hard felt, the outside, softer.

2. Chimes or Tubular Bells

Italian name - Campane (Com-pah-nay)
French name - Cloches (clush)
German name - Glocken (Gluck-en)

These are tubes of metal all the same thickness but of different lengths. They are in sets of eight or for those that give all the half steps or semi-tones, in sets of 13. They are suspended or hung on a rack. Each one may be lifted off and struck separately. They are struck with a padded stick. They are often used to give the effect of church bells.

3. The glockenspiel or Orchestra Bells

Italian name - Campanetta (Cahm-pahn-etta)
French name - Carillon (Carry-loh)
German name - Glockenspiel (Glucken-shpeel)

This is a series of steel plates of different sizes. They are in sets of 27 or 37 and arranged like the piano keyboard. They are struck with small wooden hammers.

Marching bands use them in this shape:



## UNIT VII - I (continued) page 4

### 4. The Celesta

Italian name - Celesta (Chell-esta)
French name - Celeste (Sell-est)

This is an instrument of 4 octaves which looks like a little piano. When you play the keys, little hammers strike small steel bars or plates like the ones in Orchestra Bells. It has a fairy-like quality.

## 5. The Xylophone (Zy-lo-phone)

Italian name - Zilafone (Zee-lah-foe-nay)
French name - Xylophone (Zee loh-fone) or Claque-bois (clack-bwois)
German name - Xylophon or Holzharmonika (hol-tz Harmonica)

Xylo is Greek for wood and phone is Greek for sound

If you look at the French name claque-bois it means, hit wood. The German Holzharmonica means wooden harmonica.

It is an instrument which looks like the Orchestra Bells - has 36 slabs of wood arranged like the white and black notes of the piano but the pieces are mounted on a frame so the player stands in front of it as though he were standing at a table. He uses one or two wooden beaters in each hand.

## 6. Other Percussions

There are many other percussion instruments, cow bells, wood blocks, claves, etc., etc.. Anything that can make a "noise" or musical sound by being struck can be called for by a composer and often is, from big wash basins to bird whistles.

Some people include the piano among the percussion instruments because the strings are struck with little padded hammers. Others say it is a string instrument because its tone quality is due to the string vibration. When we write it in a musical score, we put it between the percussion section and the string section and you take your choice.

## **VOCABULARY:**

regularly identify principles pattern of vibration noise percussive score customary categories valve stop brilliant parchment associate jingles batter-head Voice see snare-head



Lou:	M.A.U.P. Louise C. Kirschner 1/68							
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DAT	E	INSTRUMENT	PLAYED	VOICE SECTION				
you	ver as mar can't do find the	. When you h <b>av</b> e	you can from e finished go	memory. Check the ones back to the unit material				
1.	When the	pattern of vibr	<u>etion</u> is reg	ılar we make				
2.	When the	pattern of vibr	ration is not	regular we make				
3.	The instr	ruments we blow	into are	instruments.				
4.	The instr	ruments we strik	te are	instruments.				
5.	Think of makes a h	the little <u>flug</u> nigher sound	e. Think of	the big tuba. Which one				
6.	Give the	names of 3 perc	ussions which	are <u>noise</u> makers:				
7.	Give the	1 2 3 names of 3 percentage   1 2 3	ussions which	n are <u>music</u> makers:				



UNIT VII - 2A
WIND INSTRUMENTS
THE BRASSES

## Introduction:

The first wind instruments of this type were probably animal horns or tusks. To the smaller end a cup-shaped mouthpiece was attached. More than 2000 years ago this shape was already being copied in metal. These instruments were roughly cone shaped.

We still use the cup-shaped mouthpiece and the widening of the end of the tubing or the <u>bell</u>. In some of the movies that tell the stories of the people who lived long ago, you will often see the guards announce the coming of important people by blowing on long trumpets. They were also used like the bugle today, for military groups and in battle.

In order to get instruments of deeper and deeper tone they began to lengthen and broaden the tube. As they did this they became harder to manage. Somewhere toward the end of the thirteenth century the instrument began to be "folded up". Many changes developed in the instruments to make it possible to play more and more notes on one instrument. Slides were added like the ones on our trombone. Crooks or crooked pieces which can be moved in and out to lengthen or shorten the tube like the Crook on our modern trumpet and valves which could cut off lengths of tubing and make the instrument shorter. Our modern valve trumpet has 3 of these. The pieces on which we press down with the fingers are called pistons and when we push down the piston it controls the shut-off valve.

In addition, the players found they could change the note sound by how they loosened or tightened the lips, and by the force of the breath going into the instrument.

Even though you may see instruments in a "Brass" section which are not made of brass today, we still use the name "Brasses" for the group of instruments which use cup-shaped mouthpieces and whose tubing ends in a bell shape. The four main instruments of this group are the trumpet, the French Horn, the trombone, and tuba.

### 1. The Valve-Trumpet

Italian name - Tromba ventile (trumba ven-tee-lay)
French name - Trompette a postons (Trom-pet) ah (Peest-ohn)
German name - Ventiltrompete (Fen-teel Trom-pet-tah)

This is the highest or soprano member of the brass group. The most commonly used is the Valve Trumpet in  $\mathbf{E}^{b}$  which means that when the player sees the note  $\underline{\mathbf{C}}$  and plays a  $\underline{\mathbf{C}}$  we hear a  $\mathbf{E}^{b}$ , one note lower. If we want him to play what sounds like  $\overline{\mathbf{C}}$  to us, we must write a  $\underline{\mathbf{D}}$  for him.

There is another instrument that looks very much like the trumpet except that it is <u>stubbier</u>. It sounds very much like the trumpet except that it's tone is not so piercing and sharp. It is seldom used in this country any more but you may see it written into some scores.

## UNIT VII - 2A (continued)

page 2

## 2. The French Horn in F

Italian name - Corno ventile (cor-no ventee-lay)
French name - Cor-a-pistons (Core ah peest -ohn)
German name - Ventilhorn

This, too, is a "Valve" horn. If we could straighten out all the tubing used in this horn it would measure 11 feet 8½ inches! In order to hold it, the player puts his right hand into the bell. In addition to helping the player hold the instrument it has been found that the hand can also be used to change the pitch and sound quality if used properly.

We call this the Horn in F because when the player sees and plays a C he actually produces a tone which sounds the F below that C. The instrument has a beautiful rich tone when played correctly.

## 3. Introduction: The Trombones

Italian name - Tromboni (Trom-boh-nee)
French name - Trombones (Trum-bohn)
German name - Posaunen (Poh-sow-nen)

These come in 4 different sizes-soprano, alto, tenor and bass, although we generally use only the tenor trombone now. They were developed from a family of instruments called Sackbuts and if you read the plays of Shakespeare or stories of England around the time of Henry the VIII or Elizabeth the I, you may see them mentioned.

This brass instrument's special feature is the large crook or slide which is moved back and forth to make the tube longer or shorter. It also has the cup-shaped mouthpiece and bell at the end of the tube.

Some of our tenor trombones today also have the valves added so the player uses one hand to control the valves, as on the trumpet, and the other to move the slide.

## Vocabulary:

LCK/dc

bell lengthen broaden slides Crooks Crook valves pistons sounds stubbier piston



UNIT VII - 2A (continued)

page 3

## 4. The Tuba

.The word "Tuba" means tube and has come to mean the biggest and deepest of the brass instruments. It, too, has a cup-shaped mouthpiece extra tubing controlled by valves and a bell shaped ending. The one commonly used is also called the BB/- Bass or Double B Flat Bass.

You may also be familiar with the sight of "marching" tubas invented by Sousa and called Sousaphones, where the player looks as though he wrapped part of the instrument around his middle and the big bell is above his head. This change in shape was made so the player could hold the heavy instrument while he was standing or marching. Today, we even make our sousaphones out of a plastic material so the player won't have so much weight to manage.

Before we take up the woodwinds where the <u>characteristic</u> is the reed, we must mention that Adolphe Sax invented an instrument called the Saxophone to combine the qualities of the brass instrument with the reed and fingering holes of the woodwinds.

A French band master named Sarrus invented an instrument which combined brasses with the <u>double-reed</u> instrument like the bassoon. These are called Sarrusophones. They never reached the <u>popularity</u> of the saxophones.

Vocabulary:

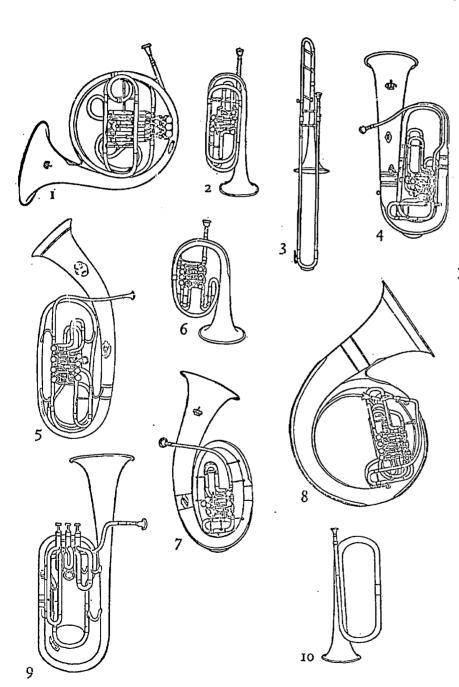
LCK/dc

Characteristic popularity



## UNIT VII - 2A

## THE BRASSES



- 1. French Horn
- 2. Trumpet
- 3. Trembone
- 4. Tuba
- 5. Wagner Tuba
- 6. Cornet
- 7. Euphonium
- 8. Helicon
- 9. Saxhorn
- 10. Bugle

(No. 6) the Cornet, is the stubbier instrument mentioned in Unit VII-2A under "the Valve-Trumpet".

BRASS INSTRUMENTS I

LCK/dc

1. French Horn. 2. Trumpet. 3. Trombone. 4. Tuba. 5. Wagner Tuba. 6. Cornet. 7. Euphonium. 8. Helicon. 9. Saxhorn. 10. Bugle.

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	se C.	Kirschner UNIT VII					
	NAME	E		CLASS	SCHOOL		
	DATE	E	_INSTRUMENT	PLAYED	VOICE	SECTION_	
	you	wer as many can't do. find the a	When you h	as you can f ave f <b>i</b> n <b>i</b> shed	from memory. I go back to	Check the	e ones material
	1.	The four m	ain <b>i</b> nst <b>r</b> um	ents of the	"brass" sect	ion are:	
		1.					
		2.					
		3.					
		4.					
	2.		atu <b>r</b> e that s is the cu		ass apa <b>r</b> t fro	om other w	in <b>d</b>
	3.			g in the tru	umpet, French	ho <b>r</b> n an <b>d</b>	tu <b>b</b> a
	4.	Four of th	e pe <b>r</b> cussio	n inst <b>r</b> ument	s are:		
		2.					
		<b>3.</b> , s					
		4.					
	4.	Write the	musica <b>l</b> sig	n fo <b>r -</b>			
		1. s	ha <b>r</b> p	·	_		
		2. G	clef	·	_		
		<b>3.</b> c	rescendo _		_		
		<b>(</b>					LCK/dc



UNIT VII - 2B WIND INSTRUMENTS WOODWINDS

### Introduction:

It may seem strange to some of you that some of the woodwinds are now made of metal or plastic. The difference between the woodwinds and brasses no longer depends on the material from which we make the instruments, it is in the way we produce the sound. In the brasses we use a cup-shaped mouthpiece and the tension or tightness of the lips against the mouthpiece to get our tones. We also change the tubing length by pushing down the pistons which close valves and thus shut off different parts of the tubing.

In the woodwinds, we change the tube length by "stopping" holes bored in the tube with our fingers. It was difficult to reach some of these holes until a man called Boehm invented a mechanism by means of which you push on a button which controls a padded metal key. These padded keys will "stop" the holes which are hard to reach. You will see this on any of the woodwinds you can examine.

In woodwinds, there are three different ways we cause the air in the tube to vibrate:

1. By blowing through a hole cut in the side of the pipe or direct blowing at the end.

By means of a single beating reed. By means of a double reed.

The four main instruments in this group are the flute, oboe, clarinet and bassoon.

#### 1. A) THE FLUTE

(Flou-toe) Italian name - Flauto French name - Flute German name - Flote (Flute) (F ler-ta)

The instrument has 3 parts, the head, the body, and the foot-joint or tail-joint. The head, which contains the hole through which we blow, is stopped up at the end. The body contains the finger holes and the tail-joint contains additional holes. The flute is most commonly made of metal today and often the body and tail-joint are in one piece. The best ones are made of silver or gold.

We can get our high tones by tightening the lips. As you read about the instruments, keep the page which shows the pictures of the woodwinds near you. LCK/dc



UNIT VII - 2B (continued)
page 2

#### 1. B) THE PICCOLO

Italian name - Ottavino or piccolo flauto (piccolo means small)
French name - Petite flute (Petite means small)
German name - Kleine Flöte (Kleine means small)

This is really a small sized flute, less than half as long as a flute, thinner and without the tail-joint. It plays an octave or 8 notes higher than the flute. It is a little shrill. It is played exactly like the flute but the lip tension is tighter.

### 2. A) THE OBOE

Italian name - Oboe (oh-boe-ay)
French name - Hautbois (Oh-bwah)
German name - Oboe

The oboe is a small pipe of wood (sometimes of a plastic called ebonite). At its upper end is a short length of metal tubing called the staple. The mouthpiece is made of two pieces of very fine and specially prepared cane or reed bound together and meeting like this () The double reed is actually placed in the player's mouth. At the bottom of the tube is a bell shaped section.

It requires great muscular control and breath to play this instrument properly. It has a tone that cuts through the orchestra sound and can be easily heard.

#### 2. B) THE ENGLISH HORN

This is really a deeper member of the oboe family and its bottom bell is rounded.



#### 3. A) THE CLARINET

Italian name - Clarino (Clah-rée-no)
French name - Clarinette (Clarinét)
German name - Klarinette (Clah-ree-nét-te)

The clarinet is a wood or ebonite pipe, 2 feet long made in 5 sections.

1. The mouthpiece

2. The barrel joint

3. The left hand or top joint 4. The right hand or lower joint

5. The bell

Sometimes the 2nd, 3rd, 4th, and 5th joints are made in one piece. The mouthpiece is always a separate piece. Many different kinds of material have been tried for the mouthpiece; metal, wood, plastic, marble, porcelain or china, glass and even gold. The most common today are wood or plastic.



UNIT VII - 2B (continued)
page 3

Against the upper part of the mouthpiece we place a single reed or "cane" and attach it to the mouthpiece by placing a metal ring over the mouthpiece and reed and tightening the metal piece to hold the reed in place. This metal ring is called the <u>ligature</u>. The clarinet also has holes in its pipe which are stopped by the fingers and the padded metal keys such as Boehm invented to help reach some of the holes. After Boehm, a number of other instrument makers tried to improve his system.

The clarinet in most common use is the B which, like the B Trumpet produces a true B when the player sees and plays the written note C.

#### THE BASSOON

Italian name - Fagotto (Fag-ot-toe)
French name - Basson (Bah-soh)
German name - Fagott

The bassoon is a long instrument over 6 feet in length. In order to make it possible to hold and play it, the pipe was cut into 2 uneven sections and doubled back. It is now about 4 feet long. It has 5 parts.

1. The crook, a narrow curved metal tube to which we attach the

mouthpiece

2. The wing - the smaller wooden pipe

3.

The double joint
The long or bass joint

The bell

Its mouthpiece is made exactly like the double reed oboe mouthpiece but is much larger.

The bassoon also has finger holes and holes that are "stopped" with metal padded keys.

It has a deep tone and is often used in humorous passages like tuba or double bass.

While the 4 main instruments in the woodwind family are the flute oboe, clarinet and bassoon, these three are also commonly used in the orchestra.

> 1. The piccolo

The English Horn

The bass-clarinet - which sounds an octave lower, is a little longer and has a bell that turns back like the bell on a saxophone.

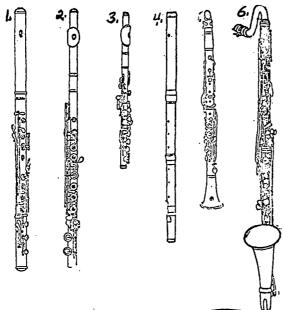
VOCABULARY:

staple tension mechanism shrill porcelain ligature pistons humorous

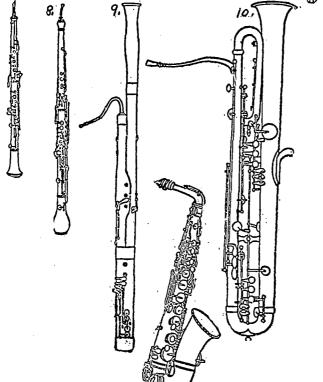


# UNIT VII - 2B

# WOODWINDS



- 1. Boehm Flute Wood
- 2. Boehm Flute Metal
- 3. Boehm Piccolo Metal
- 4. Early wooden flute
- 5. Clarinet
- 6. Bass Clarinet
- 7. Oboe
- 8. English Horn
- 9. Bassoon
- 10. Sarrusophone
- 11. Saxophone





M.A.U.P. Louise C. Kirschner 11/68

UNI	T VII - 2B			
NAM	E	CLASS	SCHOOL_	
DAT	EINSTRUMENT	PLAYED	VOICE SECTION	
you	wer as many questions as can't do. When you have find the answer.	you can from finished go	memory. Check the ones back to the unit materia	.1
1.	The four main instrument	s in <b>t</b> he wood	wind section are:	
	1)			
	2)			
	3)			
	4)			
2.	One of the double-reed i	ins <b>tr</b> umen <b>t</b> s is	<del></del>	-
3.	The woodwind which doesn	n <b>'t</b> use any <b>r</b> e	ed is <b>t</b> he	_
4.	We change the tube lengt	th of <b>t</b> he wood	winds by	_
5.	Name 2 woodwind instrume are stopped with metal p	oadded keys	e finger holes that	

LCK/dc Rev.



#### UNIT VII - 3

#### THE STRINGS

#### INTRODUCTION:

The four main instruments in the string section of the orchestra are the violin, viola, violoncello (called cello for short) and double-bass (or bass violin).

These instruments all have the same shape but differ from each other in size. The violin is the smallest and the highest in pitch. The viola is a little larger and thicker. The violin and viola are both held by the player between the left side of the chin and the top of the chest.

The violoncello is held between the legs and the player is seated. The double-bass player either stands or sits on a high stool. Both the cellc and double bass have a metal peg on the bottom which is pulled out so the instrument stands on the floor without the bottom part being scraped. It also helps adjust the height of the instrument for each player.

In addition to these 4 main string instruments we also add the harp to the string section.

The <u>piano</u>, which is a stringed instrument whose strings are struck by padded hammers, is considered by some people to be a string instrument and by others, to be a percussion instrument since we get our sound from the strings by striking them.

When a composer writes a musical score, if he puts a part for the piano into his arrangement, he writes it between the percussion parts and the string parts. There are still long discussions and arguments going on about the piano. Shall we call it "percussion"? Shall we call it "string"? You make your own choice.

In this section we will take up the four main strings; violin, viola, cello and double-bass. Remember, they all have the same shape but differ in size. Each one has 4 strings, but these, too, differ in length and thickness. They may all be played by plucking the strings or using a bow.

#### VCCABULARY:

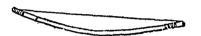
piano bow see vibration mechanism



UNIT VII - 3 (continued)
page 2

# "THE STRING BOW"

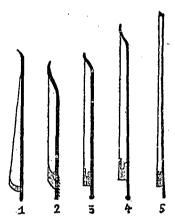
The string bow was originally the shape of the bow of the "bow and arrow". It looked something like this.





The strings of the bow, drawn across the instrument strings makes them vibrate. The body of the instrument acts as an amplifier to increase the volume or amount of sound.

About 200 years ago, the bow began to change shape and to look more like this:



Bows 3, 4, and 5 have screws on the bottom to tighten the horsehair. No. 5 is very much like our modern bow.

Horsehairs were used to make the bow strings. Resin, like a hard wax, is rubbed on the horsehairs so they'll move easily across the instrument strings. The hairs may be tightened or loosened and replaced if necessary. There are as many as 120 horsehairs in the bow.

In use, the hairs often break or get too smoothed out to vibrate the strings properly. Then we have to replace the whole set of hairs. Maybe one of your friends who plays a string instrument will let you examine the bow.

The violin and viola bow are about the same length, but the viola bow is heavier. The cello and double-bass bows are shorter and much heavier.



UNIT VII - 3 (continued)
page 3

Attached to this unit is a picture of the violin and double-bass. Keep the picture near you when you read about the strings.

## A) THE VIOLIN

Italian name - Violino (vee-oh-lee-no)
French name - Violon (vee-oh-leh)
German name - Violine or Geige (Fee-oh-leen a or Guy-ger)

I think most of you know what the violin looks like. It has kept its present shape for almost 300 years, with only slight changes. The violin is made of about 70 pieces of wood. These are different kinds of wood, some soft wood like pine, others hard wood like maple or sycamore. Each violin maker varies the length of the instrument.

In order to make it easier for the very young player to hold his instrument, they come in sizes like quarter-size, half-size, three-quarter size and full size. Some adult players with short arms use a seven-eighths size. This doesn't affect the actual sound except that the very fine old violins and the expensive ones today are generally full size instruments.

The violin has 4 strings and these can be tightened or loosened by means of the pegs which stick out of the "scroll" part of its long neck. The strings pass over a "bridge". In order to make it easier to reach any one string by itself without touching the others, the bridge has a rounded top which serves to keep the strings at different levels and also separates them a little so they aren't parallel.

The violin is held with the left hand. The fingers of the left hand also press down the string against the fingerboard and make the string shorter; shorter string - higher pitch. When the finger doesn't press on the string we call this the "open string".

At the end of this section on strings you will find a piece of music that will show you what notes the open strings of the 4 main instruments play and how they <u>overlap</u>. By this, we mean that the low tones of the violin are exactly like the high tones of the viola. The low tones of the viola are like the high tones of the cello Some of the high tones of the double-bass are like the low tones of the cello.

The right hand holds the bow and directs its movement across the strings.

Vocabulary:

LCK/dc

increase sycamore open string overlap



UNIT VII - 3 (continued)
page 4

#### 2) THE VIOLA

Italian name - Viola (Vee-oh-la)

French name - Alto

German name - Bratsche (Brah-tsha)

It is a little broader and thicker than the violin and has a deeper and warmer tone. Its strings are thicker than violin strings and its bridge is larger.

# 3) THE CELLO (VIOLONCELLO)

Italian name - Violoncello (Vee-oh-lon-chello)
French name - Violoncelle (Vee-oh-lon-sell)
German name - Violoncell (Fee-oh-lon-chell)

The cello is the same general shape as the violin and viola. It is much thicker, longer and broader. It has the metal peg at the bottom which is pulled out and screwed tightly in place and which rests on the floor. Its bridge is much larger and thicker than the violin or viola bridge.

The player is seated and holds the cello in place with his legs and knees. It has a sweet deep tone. Here too, we "finger" the strings with the left hand and "bow" with the right. Most cello parts are written in the bass clef.

# 4) THE DOUBLE-BASS

Italian name - Contrabasso (Contra Bahso)
French name - Contre basse (Contra bahss)

German name - Kontrabass

This is the lowest and heaviest of the string group. Its strings are longer and thicker and when we pluck or bow the lower strings we can see the <u>vibration</u>. It has a very large, heavy bridge.

The dcuble-bass has a metal peg on the bottom similar to the cello. Standing upright it is most often taller than its player.

## 5) Extra Strings

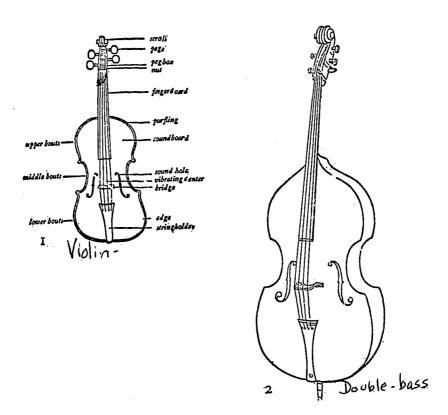
The Harp

The Piano - Is it a string or a percussion?

Now you will find an example of how the composer shows or indicates which instruments are to be used in his "score". The order for orchestra is usually woodwinds, brasses, percussion and string. In the band it is the same except the string section is left out.



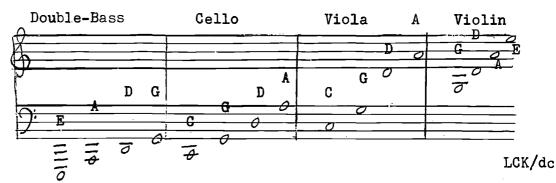
UNIT VII - 3 (continued) page 5



The violin, viola and cello look alike. The cello has the peg at the bottom like the double-bass.

The double-bass has a more sloping top to its body and the strings are tightened by a screw mechanism which makes it easier to tighten up and hold the very long, thick strings.

We tune the string instruments as follows:





M.A.U.P. Louise C. Kirschner 10/68 Unit VII - 3 \_\_\_\_CLASS\_\_\_\_SCHOOL\_\_\_\_ NAME \_\_INSTRUMENT PLAYED \_\_\_VOICE SECTION Answer as many questions as you can from memory. Check the ones you can't do. When you have finished go back to the unit material and find the answer. 1. Name the four main instruments in the string section. a) b) c) d) The largest and deepest in tone of these 4 is the \_\_\_\_\_\_ 2. 3. We cause the strings to vibrate by a) b) Name one other instrument of the orchestra that is included in the string section 5. Name another string instrument very popular today that is used in accompanying songs or in rock and roll music

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IIV TINU

NAM.	'.ECLASS		_SCHOOL	
DAT	reinstrument played_		_VOICE SECT	ION
you	swer as many questions as you can a can't do. When you have finished find the answer.	from men d go bac	nory. Chec ck to the u	k the ones nit material
1.	In front of the following list opercussion, B for brass, W for w	of instru	uments writ, and S for	e P for string.
	a) violin	f)	trumpet	
	b) trombone	g)	xylophone	
	c) snare drum	h)	tuba	
	d) clarinet	i)	oboe	
	e) double bass	j)	harp	
2.	The family of instruments which family.	uses a l	bow is the	
3•	Instruments which create sound be family.	by being	struck are	in the
4.	The smallest woodwind is the			
5.	The family of instruments which is	uses a	cup-shaped	mouthpiece

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UNIT VII - 4

Page I

# Illustrations for Instruments of the Orchestra and Band

On this page and on the three pages that follow you will have a chance to see a score as the composer writes it. The one below was written by a composer whose language was German. In the left column you will notice that he has given the instrument names in German. The tempo indication, Gemachlich, is also in German. This means "easily". He wrote Bratschen for viola and geteilt for divisi. Instrumental players know that this means that some of the instruments play the top notes and others play the bottom notes. Notice that other marks like p, sfz, and so on are the same as you see them in other music.

# Till Eulenspiegels lustige Streiche.

Gemächlich.

1.2 große Flöte.

1.2 Klarinette in B.

1.2. Fagott.

1. Violinen.

Bratschen.

Violoncelle.

Kontrabässe.



UNIT VII - 4

Page II

On this page you will find a chart that shows the instrument names in German, English, French and Italian. Below there is a score where the composer named his instruments in Italian. You will also see the placement of the piano part, between the percussion and the strings.

ABKÜRZUNGEN: Gr. Fl. Große Fiste Kl. Fl. Kleine Fiste Ob Hoboe Engih. Englisch Horn Kl. Gr. Basklarinette B. Kl. Basklarinette Fag. Fagot K. Fag Koutrafagott H. Or Trompete Pos. Possune Tb. Tuba Vl. Violine Br. Bratsche Vlc Violoncell Kb. Kontrabaß Pk. Pauke Trgl. Triungel Bck. Becken Gr. Tr. Große Trommel	Flute Piccolo Oboe Eaglish Horn Clarinet Bass-Clarinet Bass-Clarinet Bassoon Contrabassoon Horn Trumpet Trombone Tuba Violin Viola Violoncello Double bass Kottle drum Triangle Cymbal	Grande flûte Petito flûte Liautbols Cor Anglais Cor Anglais Corinette Clarinette-basse Basson Contrebasson Correbasson Trompette Trombone Truba Violon Alto Violoncelbe Contrebasse Timbale Triangle Cymbale	ABBREVIAZIONI: Flauto Ottavino Otto Corno Inglese Clarinetto Clarinetto Clarinetto Clarinetto Contrafagotto Contrafagotto Corno Trombone Trombone Truba Violino Viola Violoncello Contrabasso Timpani Triangolo Piatti
Bck Becken Gr. Tr Große Trommel Kl. Tr Kleine Trommel Gr. Risch. Große Ratsche	Cymbal Big drium Side drum Big Rattle		

# CONCIERTO PARA PIANO No. I

Allegro non troppo e molto maestoso

2 Fauti
2 Obol

Deleted for ERIC reproduction.

2 Clarinetti in Sib
2 Fagotti
4 Corni in Fa
2 Trombone Tenore
Trombone Basso

Planoforte

Violino I

Viola

Vio

UNIT VII - 4

Page III

This page contains a score for full orchestra with the names in English. Notice the placement of piano, saxophones and banjo.

MINIATURE ORCHESTRA SCORE
Mollo moderalo (J=80)

RHAPSODY IN BLUE

GEORGE GERSHWIN Scored by Ferde Grolé

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exp. mat. 2/68 Louise C. Kirschner M.A.U.P. Bd. of Ed. **PASSACAGLIA** UNIT VII-4 English names is for full concert band (page IV) Broadly, without aragging (J-60) Piccolo (C) (+3rd Flute) Flutes' 12 Oboes English Horn (optional) Eb Clarinet B Clarinets E Alto Clarinet B Bass Clarinet B Contrabass Clarinet 1410 Contrabassoon (optional) E Alto Saxophones ₽ Tenor Saxophone Eb Baritone Saxophone Broadly, without dragging (1=60) Horns Bb Trumpets B Cornets f molto sonore e sost 🖍 moito sonore e sust Tub 御 String Bass Timpani (A, D, E) Pair of Cymbals Vibraphone Xylophone Bells flarp (optional)



Louise C. Kirschner 2/68 UNIT VII -CLASS SCHOOL NAME INSTRUMENT PLAYED\_\_\_\_\_\_VOICE SECTION\_\_\_\_ DATE Answer as many questions as you can by memory. Check the ones you can't do. When you have finished go back to the unit material and find the answer. Name the four main instruments in the string section. a) b) c) d) In the following pairs of instruments put a check after the instrument which is higher in pitch. trumpet - tuba - piccolo - clarinet double-bass -violin flute - bassoon -3. Put a ring around the time signatures which show ternary time. 4. Write the words that are spelled out by the following: -

LCK/dc

p

mî



M.A.U.P.

Arrange the following dynamic marks so they go from very

pp

soft to very loud:

#### UNIT VIII - THE LANGUAGE OF MUSIC

(Part II)

#### INTRODUCTION

Just as your friend John Jones can be called John or Johnny or Jack or Jonesy and still be the same person, so we have many ways of naming each particular tone or note. Some of these you have already learned. In this unit we will review these and find out about some others and the reasons for the variety of names.

#### MUSICAL NOTATION

Musical notation, which is what we call the placing of notes, time signatures and clefs on the staves, is universal. By that we mean that anyone who has learned our system of tones and scales can read the music on the staves and produce it on an instrument or by voice, no matter what country he lives in or what language he speaks. He may, however, call the notes by different names.

Musical notation of our kind of music began in Italy and the Italian language names are still in greatest number among the terms we use. With the development of written music in Germany, France and England, German, French and English words and names began to be used as well. You will often find them all used on the same piece of music. In order not to be confused by this, let us learn something about it. The language of music is, for us, a mixture of all.

#### VOCABULARY:

musical notation universal confused variety particular

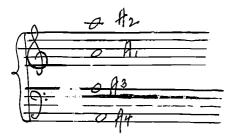


#### UNIT VIII - A

#### LETTER NAMES AND PITCH

First let us explain the word "accidental". This refers to a sharp sign (#), flat sign ( $\emptyset$ ), natural sign ( $\emptyset$ ), double sharp sign (X), double flat sign ( $\emptyset$ ) placed before a note to show that we must raise or lower the pitch.

We use the first seven letters - A B C D E F and G, with or without accidentals, to name our notes. Each of these stands for an exact tone as measured by the number of vibrations per second that are produced when that tone is heard. The sound we hear as a result of that vibration is the pitch of a note. A standard of pitch is established but this, too, has varied within the last 200 years. At present it is close to 440 vibrations per second for A - 2nd space on the G Clef. Each note has its own vibration standard. The more vibrations produced per second of time, the higher the pitch. It may help you to remember the simplest relationship.



If the A l vibrates 44 times per second - A 2 an octave higher will vibrate twice as fast or 880 times per second - A 3 an octave lower will vibrate 220 times per second or half as much - and A 4 an octave lower than A 3, will vibrate only 110 times per second.

Perhaps you will be able to see one of your fellow students draw a bow across the lower strings of a bass violin. The vibrations are so few in comparison with those of the strings of a violin that you can actually see them.

Since we use 7 letters of our alphabet to name the lines and spaces on the staves we also say we can "spell" out a chord or a melody phrase in music.

#### **VOCABULARY:**

vibrations pitch established relationship octave comparison



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Louise C. Kirschner
10/68

UNIT VIII - A

NAME

MAM	ECLASSSCHOOL
DAT	E
you	wer as many questions as you can from memory. Check the ones can't do. When you have finished go back to the unit material find the answers.
1.	Write the musical signs for the following accidentals.
	a) sharp
	b) double flat
	c) natural
2.	The more vibrations per second the the pitch.
3.	What letters of the alphabet do we use to "spell" out a chord or phrase in music?
4.	Name the following.  a) x  b) #  c)
	a) hb





UNIT VIII - B

#### LATIN NAMES AND THE FIXED "DO" SYSTEM

#### 1. Latin Names

Guido d'Arezzo, of whom we read in Unit III, had a great influence on naming the notes of the scale. He wrote music to the Hymn to Saint John which was so composed that each line of the hymn began on the next highest note of the scale. The Latin words are -- Ut queant laxis, Resonare fibris, Mira tuorum, Famuli gestorum, Solve polluti, Labii reatum - Sancti Johannes.

If you look at the underlined <u>syllables</u> you find ut, re, mi, fa, sol and la. These represented CDEFG and A in our letter names. In many countries the ut got changed to <u>do</u> and sometime later on, the seventh tone, ti or si, was added.

#### 2. The "Fixed Do"\_System

In France and Italy the do, re, mi or ut, re, mi names are still used instead of letter names. C is ut in France and do in Italy. In both countries D is re, E is mi, F is fa, G is sol, A is la, and B is si. In Germany they use the letters as we do except that B stands for our B  $\forall$  and  $\underline{H}$  stands for B  $\forall$ .

Let us make a table of names in the "fixed do" system.

American C D E F G A  $(B_{\nu}^{\nu})$  B C English C D E F G A  $(B_{\nu}^{\nu})$  B C

Table I

C E F Œ C German D Η la French fa go ut mi sol si re mi fa Italian do re sol la do The French name for the # is diese (dee-ess) and for the  $\sqrt[h]{}$ 

bemol (bay moll). The Italian name for the # is diesis (dee-ay-sis) and for the \$\namle\$ be molle (bay-mawl-ay). The German system adds "is" to letter names for the #. F# is Fis (Fees) and D# is Dis (dees). It adds es to make the \$\namle\$ so \$\mathbb{G}\$ is ges (Jays) and \$\mathbb{A}\$ is as (ahs).

These are called the "fixed do" systems because no matter what the key changes to, the actual notes, vibrations and sounds we sing or play, keep their place and name.

VOCABULARY:

influence

composed

s**yllable**s

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UNIT VIII - B

NAME		CLASS	SCI	HOOL
DATE	INSTRUMENT PLAYE	D	VOICE SECT	ION
	any questions as you o. When you have fin e answers.			
reference to the table in Tables by me	all the other Tables ables. Feel very fren front of you. No o emory. We do want you where to find it.	e to ansv	ver the questi is you to lear	ions with rn Reference
1. What is	the French name for	middle C?	)	<del></del>
2. What is	the Italian name for	middle C	;?	
3. Which co	ountry uses <u>B</u> to mean	ъ <b>р</b> 5		
4. What do	they call by ?			
5. Why do	we call this the "fix	ed do" sy	stem?	

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#### UNIT VIII - C

THE MOVABLE "DO" SYSTEM

When we examined the formation of major scales, we saw that the space or interval between the 1st and 2nd notes of the scale was always the same - a whole step. The same was true of the interval between the 2nd note or degree (°) of the scale - a whole step and the interval between the 3 and 4 was a half step. No matter what sound we start from, even one we choose ourselves by voice alone, we can sing a major scale ascending or descending and have it sound right if we keep this same tonal relation. We don't have to worry about sharps or flats. We call the first note, do, the 2nd, re, the 3rd, mi, and so on through - do, re, mi, fa, sol, la, ti, do -

Let's put together what we have learned so far and see how it works.

Table II

Key of C Ō (1) (2) Movable "Do" 2 3 6 8 5 do fa ti do re mi sol la Fixed "Do" Ħ English C: TD) E Œ В C A F German C D E G H . C A fa French ut sol ďο re mi la si Italian do fa la do sol si re mi

Let(s try this on another key -- Key of G

# Table III

		-)						£ 0	
	•	Xo	0	0	0				
(1) (2)	Щ	Do 1 1 do	2 re	3 mi	4 fa	5 sol	6 la	7 ti	8 or 1 do
(3) (3) (4) (5)	Fixed "Do English German French	" G G sol	A A la	B H si	C G ut	D D <b>r</b> e	E <b>E</b> mi	F# Fis Fa diese	G G sol
(6)	Italian	sol	la	si	do	re	mi	Fa diesi	

In our country we are concerned with line 1 and 2 as movable "Do" and line 3 as fixed "do". From now on we'll omit the French German and Italian names and stick to the ones in English. If, however, you come across music that is printed in France, Germany, or Italy, you should not be confused by the different names and should be able to read your reference table to find out what we would call it.

VOCABULARY: examined formation interval concerned tonal relation reference confused LCK/dc

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UNIT VIII - C

NAME	CLASS	SCHOOL	
DATEINSTRUMENT	PLAYED	VOICE SECTION_	
Answer as many questions you can't do. When you h	as you can from	memory. Check the ones	1

Use your reference tables.

and find the answers.

1. Draw a staff

- 2. Write the G clef at the beginning. Write a scale in the Key of G using half notes
- 3. Label the notes in
  - a) the English names
  - b) movable "do" numbers

LCK/dc R<sup>L</sup>v.



# UNIT VIII - D

#### NAMES ACCORDING TO USE

#### Related to the Movable "Do" System

Each degree of the scale in the movable "do" system has a name which developed because of its postion in the scale and the effect it had upon the other notes in the scale. For instance, the l is called the TONIC because it sets the tonality of the scale. Some of you may have been taught to call it the "home" tone. The 5 is called the DOMINANT because it is a strong note and the chord we build upon it also calls to go back to the TONIC. Now look at the table below and see how the other names developed quite naturally.

Table IV
READ THIS TABLE FROM THE BOTTOM, UP.

DEGREE	NAME	ABBREVIATION	DESCRIPTION
8°	Tonic	T	Sets tonality
70	Leading Tone	LT	Seems to lead up to the Tonic
6°	Sub Mediant	SM ·	Between the Subdominant (4) and the Tonic (8)
5°	Dominant	D	Strong
4 *	Subdomimant	SD_	Below the Dominant
3°	Mediant	M	Between the Tonic (1) and the Dominant (5)
20	Supertonic	ST	Above the Tonic
10	Tonic	T	Sets Tonality

See reference material tables for further information.

VOCABULARY:

TONALITY

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UNIT VIII- D

NAM	E	<u> </u>	CLĄSS	SCHOOL
DAT	E	INSTRUMENT PI	LAYED	VOICE SECTION
you	can	as many questions as y t so. When you have d the answers.	rou can from mem finished go bac	ory. Check the ones k to the unit material
1.		t to the names write treviation.	the degree of the	e <b>s</b> cale and the
	1.	Dominant		
	2.	Supertonic		
	3.	Sub mediant		
	4.	Leading tone	<u> </u>	
	5.	Tonic		
	6.	Mediant		
	7.	Sub dominant		
2.	The	se names are given to " system.	the degrees in	the

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UNIT VIII - UNIT TEST

NAM	ECLASSSCHOOL
DATI	EINSTRUMENT PLAYEDVOICE SECTION
can	wer as many questions as you can from memory. Check the ones you 't do. When you have finished go back to the unit material and d the answers.
1.	The 5° of a scale may also be called the
2.	Germans use <u>H</u> to mean the pitch letter
3.	The signs #, b, X, bb, A are called
4.	Pitch is related to the number of per second.
5.	Look in your tables and find -
	(a) the French name for #
	(b) the Italian name for b
	(c) the degree number for sol or the dominant

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UNIT VIII - 6\*

NAME	_CLASSSC	HOOL
DATEINSTRUMENT	PLAYED	VOICE SECTION
Answer as many questions as yo you can't do. When you have f and find the answer.	ou can from memor inished go back	y. Check the ones to the unit material
1. Next to the "Use" names of	the scale, writ	e the degree -
1. Dominant 2. Tonic 3. Sub mediant 4. Sub dominant 5. mediant 6. leading tone 7. supertonic		
2. In the following, two lett scale. Put in the missing	er names are mis	sing from each major
a) $B^{\flat}$ D $E^{\flat}$ F	A B	1
b) E F# G#	_ cf df e	
c) F A B C	E F	
d) G A B D	F# G	
a) Write the names of the foldon a) x b) x c) d) rit e) 4 f) SD	lowing musical s	sign <b>s -</b>
g)		
h) £		LCK/dc

# IIIV TINU

#### REFERENCE MATERIAL

Table A and Table B are additional examples of how all the names we can call a note are applied in the "Movable  $\underline{Do}$ " system (including "use" names - Unit VIII -D) and the "Fixed  $\underline{Do}$ " system.

	U	0	(f) o	0	0	0	0	0
MOVABLE "DO"  1. do-re-mi  2. degrees of the scale  3. names of degrees (Use)	do	re	mi	fa	sol	la	ti	do
	1	2	3	4	5	6	7	8
	T	ST	M	SD	D	SM	LT	T
FIXED "DO" 4. English 5. German 6. French 7. Italian	D	E	F#	G	A	B	C#	D
	D	E	Fis	G	A	H	C#	D
	re	mi	*Fa#	sol	la	si	*Ut#	re
	re	mi	*Fa#	sol	la	si	*Do#	re
<pre>* Fa# = Fa diese (French) Ut# = Ut diese Do# = Do diesis</pre>	Fa d	iesis	(Itali	an)				

	γ			· · · · · ·				<del>11</del> <del>2</del> <del>11</del>
			<u> </u>	<del>(1)0</del>	<i>5</i>	0	0	<u>b)0</u>
MOVABLE "DO"	(b) To	₹	Ů,	3/5	•			
1. do-re-mi-	do	re	mi	fa	sol	ļа	ţi	<b>d</b> o
2. degrees of the scale 3. names of degree (Use)	l T	2 ST	3 M	4 SD	5 D	6 SM	7 LT	<b>d</b> ○ 8 T
_	<b>-</b> ,	O.	2.7	OD.	D	O.	. 111	•
FIXED "DO" 4. English	$\mathbf{B}^{\!\!\!\!/\!$	С	מ	Εþ	म	G	A	<sub>R</sub> b
5. German	*SiV	C	D D	*ΕÞ,	F F Fa	G ·	A	Bb *Sib *Sib
6. French 7. Italian	**S <b>i</b> V *S <b>i</b> V	<b>U</b> t Do	R <b>e</b> Re	*Mib *Mib	Fa Fa	sol <b>s</b> ol	La L <b>a</b>	*Si <sup>V</sup> *Si <sup>V</sup>
/ • Italian	#9T4	, July	ne	-MT.	ra	SOI	ъа	49T,
* Si = Si be mol (French)	Si be		e (Ita					
E = E bé mol (French)	E b	∍ moтт	e (Ita	arian)				



# REFERENCE APPENDIX TO UNITS VIII and IX

#### ORCHESTRA

S Flauti, Ottavino, S Oboi, Corno Ingleso, Clarinetto in Re (D), 2 Clarinetti in Sib (B), Clarone in Si b (B), S Fagotti, Contrafagotto.
 Corni in Fa, 4 Corni in Re (D) ad libitum, 3 Trombe in Fa (F), 3 Trombe in Re (D) ad libitum, 3 Tromboni, Tuba.
 16 Violini I, 18 Violini II, 12 Viole, 12 Violoneelli, 8 Contrabassi.
 Timpani, Piatti, Triangolo, Gran Cassa, Tamburo militare.

The <u>illustration</u> above was reprinted from a score. The composer has shown which instruments and how many instruments are to be used in playing his music. The instrument names are in Italian but the music was printed in Germany. The German printers added something so the <u>German</u> performer would understand better.

Let us see how we would write it for English speaking performers.

3 Flutes, Piccolo, 3 Oboes, English Horn, Clarinet in D, 2 Clarinets in B $^{b}$ , Bass Clarinet in B $^{b}$ , 5 Bassoons, Bass Bassoon

4 Horns in F, 4 Horns in D (optional), 3 Trumpets in F, 3 Trumpets in D (optional), 3 Trombones, Tuba

16 - 1st Violins, 16 - 2nd Viddins, 12 Violas, 12 Cellos, 8 Double Bass

Timpani, cymbals, triangle, bass drum, side drum, or snare drum

The fixed "do" table, (Table I in Unit VIII), will show you that

"Re" in Italian is D in German and English

"Si" in Italian is B in German and B in English

"Fa" in Italian is F in German and English

You will find the English translations for all the other instrument names in Unit VII - 4, page 2



UNIT IX - A

MORE ABOUT THE STAFF

In this unit about the language of music we shall add some of the musical signs we haven't yet explored or examined.

# Ledger lines - Leger lines

These are the short lines we add above or below the staves to write more notes on. Some people call them "ledger" lines and say the word comes from the English <a href="Ledge">Ledge</a> like a window ledge or sill. Others say the word is spelled <a href="Legge">Legge</a> and comes from the French word leger (lay-jay) which means light or without much weight. Either spelling may be used. The original or first development of a staff and clefs was meant to keep all or as many as possible of the notes on the staff to make it easier to read and perform the music. As our instruments became better and better and could play more notes, higher and lower, we had to use these lines to extend the staff.

Let us see what they are called in relation to what we already know about naming the lines and spaces of the staff.

	-2nd line above the staff lst line above the staff	2nd	space	above above	the	st <b>aff</b>
5th line	4th space	<u> </u>	Space	<u>a</u> 007e	cne	Starr
3rd-line	3rd space 2nd space			_		
2nd line line lst line	1st spa <b>ce</b>	104		— —	4 h a	0+0+44
	lst line below the staff 2nd line below the staff			below below		
	3rd line below the Staff	3rd	space	below	the	st <b>aii</b>

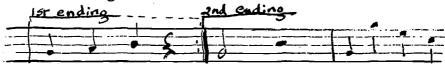
Musicians also developed "short-cuts" in writing out music and the best known are the repeat signs. The mark of the repeat sign is always 2 dots (%).

l. When the composer wants you to go back and repeat a section he marks that section off with double bars at each end. At the first double bar he writes his dots like this (#: ). This tells us to watch out, that we will have to go back to this spot and play the music again. The place he wants you to stop and go back from he marks like this (#). If we come to this second sign and never saw the first one anywheres in the music, he means go back to the very beginning and play all the music again.



UNIT IX - A (continued)
page 2

Sometimes the composer shows that the first time you play a section you end it one way and the second time, the ending is different. Then you will find something like this.



The second time we play the music, we skip over the <u>first ending</u>, we don't play it but go instead to the second ending and then if there is more to the piece of music we go on from the second ending.

#### 2. Signo

Sometimes the composer wants you to go back to a certain spot where he has marked a sign or . When he wants you to return and repeat from this sign he writes "dal signo" (doll-say-nyoh) meaning repeat from the sign.

#### 3. Da Capo

Sometimes he wants you to return to the beginning. Then he writes Da Capo or "from the head". If he doesn't want you to go all through the whole piece again he will write "Da Capo al Fine" (Dah-Cah-po al Feé-nay) "fine" means end or finish. Then you must look for where he writes the word FINE and stop there.

#### 4. Repeats

When the composer wants you to repeat a measure he uses the sign / . Often, especially in music for instruments of the band or orchestra which play the same music again and again for many measures, he even numbers the measures so the player can keep track of how many times he repeats. The music may look like this:



This may also be done inside the measure like this:



This tells the violin player to play 4 sixteenths 4 times in that first measure and then play the measure over.

# UNIT IX - A (continued) page 3

It saves the player the trouble of examining all the notes to see if the composer wants the same thing or a change. See how easy it is to read line 2 while line 1 looks confusing.

1.



2.



# VOCABULARY:

ledge leger first ending all from the sign end finish then  ${\tt LCK/dc}$ 



#### UNIT IX - A

Illustrations Showing Use of Ledger Lines



The three bits of music above show ledger lines in practical use. The piece in G clef is part of a song written for sopranos and altos. The piece in Bass clef is a tenor part. The piece in C clef is written for the viola.



In the 4 examples above the notes <u>represent</u> exactly the same music. The pitch is exactly the same. If we look at them carefully we will find out the following:

- 1. In Example 1 we have changed the clef so we can keep the notes closer to and on the staff. If we are going to have only one or two measures dipping into the lower pitches, it can become confusing to the eye to switch back and forth between the clefs.
- 2. If most of our music is higher and the notes can be shown on the G clef staff, we prefer to write our music as we did in Example 2 and use the ledger lines below the staff.
- 3. If most of our music is lower and the notes can be shown on the Bass clef staff, we prefer to write our music as we did in Example 3 and use the ledger lines above the staff.
- 4. Example 4 shows you the use of the C clef. This clef today is still in use for instruments like the viola whose notes, otherwise, would have to be written mostly on ledger lines.

If you look at the scores in Unit VII - 4, you will see on page l of that section, the G clef used for flutes, clarinets and violins. The Bass clef is used for cellos and double-bass. The C clef is for violas (Bratschen) and Bassoons (Fagott), and each of these is on a different line. Today, we usually keep the C clef for violas only, although in some places where the composer writes a great deal for the very high notes of the cello and bassoon and would have to use many ledger lines, once in a while you will find a C clef used there in the cello and bassoon parts.



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UNIT IX - A

NAMI	<u> </u>	CLASS	SCHOOL	
LATE	EINSTR	UMENT PLAYED_	VOICE	SECTION
you	wer as many questican't do. When y find the answer.	ou have finis		the unit material
1.	(a) On the staff abov	(b)	(c)	(d)
	a) a whole note		ne	
	b) a <b>q</b> uarter not	e in the 4th	space	
	c) the first led	ger line abov	e the staff	
	d) a half note i	n the 1st spa	ce below the st	aff
2.	Tell what the fol	,	mean.	
	b) Fin	e		: <del></del>
	c)	F		

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UNIT IX - B

#### MORE ABOUT TIME SIGNATURES

In Unit I and Unit II, we learned about the  $\underline{\text{time signature}}$ , the 2 numbers at the beginning of a piece of music that tell us the beat or pulse or rhythm of the music.

In Unit VI, we learned about binary time or 2 part rhythm and ternary time or 3 part rhythm. We also saw how we put them together 4 6 to make 4 part time, as 4, and 6 part time, as 8. For the most part, the music you have heard or played or sung or danced to, is based upon the 2 beat or 3 beat rhythms and simple combinations of these rhythms.

Sometimes the composer wants to show you a special kind of "musical picture". The rhythm of this picture doesn't fit the even divisions of pulse or beat. Then he uses a beat pattern which helps to show this. For instance, in one of the symphonies of Tschaikowsky

(Cheye-koff-ski) he wrote a whole section in 4 time. This 4 section is to be played like this 4

That is really one measure of 4 plus one measure of 4 and we keep this rhythm all through the piece.

Sometimes the composer wants to change the rhythm from measure to measure or section to section. Try clapping out some of these rhythm 5

changes in 4 (Notice the repeat sings)

Now let us try these together, one after the other.



UNIT IX - B (continued)
page 2

This kind of beat pattern and the <u>unusual</u> time signature add <u>excitement</u> and a <u>restless</u> quality. The time signatures can be

7 ll 4 or 8 or any top number the composer wishes. Remember that the bottom number of the time signature gives the unit of beat and is always 2 for half note as unit, 4 for quarter note as unit, 8 for eighth note as unit, and so on.

Sometimes a composer gets the excitement he wants by changing the time signature from measure to measure, or writing only a few measures in one time signature and then changing the beat. Maybe you will be able to hear the music Stravinsky write for the ballet "Petrouchka". In this music, he tries to show you the excitement of a country fair with all the things going on at once, like the shooting galleries, and rides, and games and so on, that are happening all at the same time. He does this by quick changes of rhythm and time signatures.

You see, by using the simple forms of music you have been learning about, and putting them together wisely, a composer can do so many things with music. He can set a mood - happy, sad, angry, scary - he can paint a picture - he can make you want to dance or sing.

#### VOCABULARY:

time signatures unusual excitement restless unit



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UNIT IX - B

			·
NAM.	E	CLASS	SCHOOL_
DATI	EINSTRUMENT	PLAYED	VOICE SECTION
you	wer as many questions as can't do. When you hav find the answer.	you <b>c</b> an from m e finished go b	emory. Che <b>c</b> k the ones ack to the unit material
1.	Write a time signature	in <u>binary</u> time	
2.	Write a time signature	in <u>ternary</u> time	
3.	7 PPDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDD		7 can divide up a 8 measure.
	Do something different :	in the second mo	easure.
	Put in the time signatur  a)	111111	-

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الاستالية المعمورة ١٥

M.A.U.P. Bd. of Ed. exp. mat. 2/68 Louise C. Kirschner MORE ABOUT NOTE VALUES

### UNIT IX - C

In Unit II, we showed the notes and their "values". We started with a whole note, o, then divided it into 2 half notes, we started then divided the half note into 2 quarter notes, o, and the quarter note into 2 eighth notes, o, and so on, always cutting the note into 2 notes of lesser value.

We can also divide the note into 4 notes of lesser value. For instance, 4 quarter notes have the same value as 1 whole note,

4 sixteenth notes, (fff or \$755), have the same value as 1 quarter note. The note divisions are always by 2 or 4 or 8 or 16 etc..

There came a time when the composer wanted to divide the note value into 3 notes or 5 notes and he had to find a way of writing and marking this so the player or singer would understand how to perform the music. Most commonly used of these is the triplet or putting 3 notes where 2 notes belong.

If I want 3 notes to have the value of a whole note, I go back to the first division, 2 half notes are equal in value to a whole note - 🕽 🕽 . In the same time it takes to play these 2 half notes, I want to play 3. I write 3 half notes and put a little slur and 3

over the notes like this, J.J. If I want 3 notes to have the value of a half note, I go to the first division of the half note or 2 quarter notes = 1 half note - I will write 3 quarter notes and put

the "triplet" sign over them like this, . A triplet that equals the note value of 1 quarter, in the same way, becomes 3 eighths , with the triplet sign.

When you want to know how much time, or what value a triplet has, take away one of the notes and the triplet sign. For instance, if I take away 1 of the eighth notes and the triplet sign, I have 2 eighth notes left. Their value is equal to 1 quarter note. This tells me that in the time value of 1 quarter note the composer wants me to play or sing 3 eighths instead of 2

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UNIT IX - C

NAME

DATE	INSTRUMENT	PLAYED	VOICE SECTION			
	Then you have		m memory. Check the back to the unit r			
1 For each not	e on moun	of notes bold	ou waito o moun th	hat has		

CLASS

- For each note or group of notes below, write a group that has the same duration or values. For instance, for a half note I can write ook I ok III ok III
  - c)
- 2. Write the triplet that is equal in value to 1 quarter note.

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UNIT IX - UNIT TEST

NAM.	ECLASSSCHOOL
DAT	EINSTRUMENT FLAYEDVOICE SECTION
you	wer as many questions as you can from memory. Check the ones can't do. When you have finished go back to the unit material find the answer.
1.	Locate the following as it appears on the staff above:
	a) the whole note
	b) the half note
	c) the quarter note
	d) the eighth note
	e) the triplet
2.	Which instrument still uses only the C clef?
3.	Identify the following signs: 🔀 💢
	They are all signs.
4.	When the composer wants you to go back to the beginning of a piece of music he often writes
5.	Put in the time signature
	a) 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	6) 2 2 2 1 1 1 1 2 2 1
	c) 7777179 U]
6.	Write the triplet that takes the place of
	a) od
	b) J



M.A.U.P. Louise C. Kirschner 11/68 C UNIT IX NAME \_\_\_\_CLASS\_\_\_SCHCOL\_\_\_\_ DATE \_\_INSTRUMENT FLAYED\_\_\_\_VOICE SECTION\_\_\_\_ Answer as many questions as you can from memory. Check the ones you can't do. When you have finished go back to the unit material and find the answer. Write the following in the form of musical signs: a) fermata b) double sharp c) crescendo d) accent e) slur f) dotted eighth 2. Name the sections of a symphony orchestra: 3. Draw a staff. On it place: a) a whole note on 4th line half note on 1st line below the staff quarter note in 1st space above the staff Write the triplet that takes the place of: a) 0 b) Draw a staff. On it construct the major scale in the Key of D. - Below it write the names of the notes as your read them. We would change the \_\_\_\_rd note from \_\_\_\_ to make this an ascending melodic minor



in the Key of D minor

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### UNIT X - INTERVALS AND CHORDS

### A - THE INTERVAL

#### Introduction:

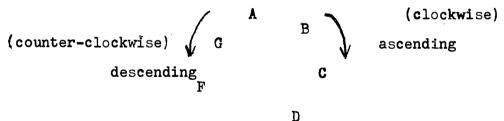
Before we go on to find what is meant by the interval in music let us review some of the material in earlier units which will be especially helpful here.

1. In every scale pattern we move up or down on our staff from line to space to line <u>never skipping</u> a line or space. In giving the letter names to the notes of a scale, we <u>never leave out or skip a letter</u>. On the staff we can show it like this.



Start anywheres and go up or down. Call your first note 1 and count up or down from there through 2, 3, 4, 5, 6, 7, 8. The 8th note is the same letter name as the 1st but the two notes are an octave apart.

In letter names, remember the circle.



Start at any letter and, without leaving out a letter, go around the circle clockwise until you come to your beginning letter again. This gives the ascending scale. Do the same counter-clockwise and we have the descending scale.

If you try this on a piano, using only the white keys you will get some scales that may sound a little strange to your ears. In searching back through pictures and instruments we have dug up, and ancient writings about music, we feel that this is the way the Ancient Greeks formed their scales or modes. We sometimes use these scales today and we say that this music sounds "modal". Even Rock and Roll music is often very "modal" which is what gives it a different sound that some people don't like. So you see that music that you may consider very new and modern went back to something very ancient for its sound.



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UNIT X - A (continued) page 2

In the scales we have established for our basic use, certain arrangements of tones one sound step or one-half sound step or one and one-half sound steps apart have been set by use and rules. We change the distances between by adding sharps (#) or flats (\*) and using the black keys of the piano key board but the NAMES - ABCDEFG in order - DO NOT CHANGE. The space between them does change and this is what we are going to look at now.

### The Interval

· The regular dictionary tells us that an interval means a space between things.

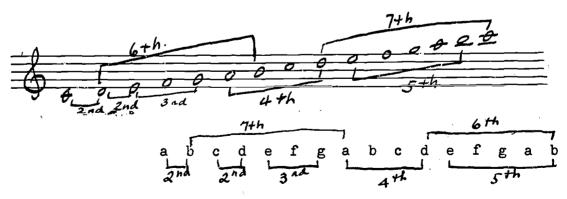
The music dictionary tells us that the musical interval is the difference in pitch between 2 sounds.

When we move from a note to the very next one - a note in a space to a note on the very next line, up or down, or a note on a line to a note on the very next space, up or down, we are moving an <u>interval of a 2nd</u>. When we move from one letter to the very next on our circle this is also, an <u>interval of a 2nd</u>. This hasn't anything to do with whether the notes are sharp, flat or natural.

When I skip a note or a letter, it's an interval of a 3rd.

When I go from one note or letter, skip 2 and reach the 4th note or letter, it's an interval of a 4th.

The illustrations below will show you that this is much easier than you may think.



There is a <u>difference</u> caused by whether we are using sharps or or naturals. This changes the <u>kind</u> of interval to a <u>major</u> or flats or naturals. This changes the kind of interval to a major or minor or augmented or diminished interval but this is something you will be interested in only if you decide to go further in your studies in music. For the present don't worry about accidentals or about trying to find the kind of interval.

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VOCABULARY: counter-clockwise clockwise octave interval diminished accidentals augmented descending modal ascending



M.A.U.P. Louise C. Kirschner 3/68 Unit X -A

NAME	CLASS	_SCHOOL						
DATEINSTRUMENT	PLAYED	_VOICE SECTION						
Answer as many questions as you can from memory. Check the ones you can't do. When you have fininshed go back to the Unit material and find the answer.								
<ol> <li>A musical interval is</li> <li>2 sounds.</li> </ol>	the difference in _	<b>betwee</b> n						
2. Using your circle of	letters to help you,	write -						
A a	) ascending 4ths b to							
G B	e to							
Tr C	g to							
F	d to							
E D b	) ascending 3rds a to							
	c to	•						
	f to							
С	) descending 6th g to							
	a to							
	d to							

3. Write in the missing letters to finish the <u>letter names</u> in the

LCKdc



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UNIT X - B

### CHORDS

A chord is a combination of 3 or more sounds. A chord takes its name from the note it is built upon and we always build them  $\underline{up}$  or in ascending fashion.

On every note of a scale, we may build chords using scale tones. For instance, in C major we have no sharps or flats, so all the chords we build will contain notes with no accidentals. We build these chords in consecutive 3rds. This is much easier than it sounds. If the note upon which we are going to build a chord is on a line then we use the note on the next line above, and the line above that to form the simple chord or triad. We use the Roman number symbol to show the triad.

### C Major and Triads



Since I is based upon the first degree (1°) or tonic of the scale it is called either the tonic triad or I chord, II is called the supertonic or II chord and so on.

Notice that the I, IV and V are written in larger letters. These three chords, the tonic, subdominant and dominant triads contain all the notes of the scale and if you can play these three chords on the piano or strum them on a guitar you can play along with almost all the folk songs.

You may have heard of the "dominant 7th" chord. In order to form any 7th chord we just add one more "3rd" to the top of the chord. Then we write the chord symbol, the Roman number, and put a little "7" below.

D Major



LCK/dc



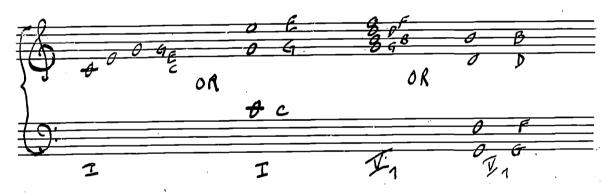
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### UNIT X - B (continued)

### page 2

We call these chords I or Tonic 7, V or Dominant 7; and so on. (If you play a guitar you will find it much easier to play the  $V_7$  than the V). The (#) is put in to remind you that we use scale tones and in the Key of D, the f and c are played or sung as f#, c# wherever we find them.

In actual music writing and singing or playing we do not have to keep the notes of the chord in place. We may move them around into different octaves like this.



Chords also have different sound <u>qualities</u> because the <u>interval</u> of a 3rd which separates the notes is a different <u>kind</u> of third in some of the chords.

Here, too, we call them Major, Minor, Augmented or Diminished Triads. If you go on to study more about music you will probably investigate the different kinds.

It is interesting to note, however, that the three chords we use most in accompanying or playing along with folk music - the I, IV, and V chords are all Major chords in the Major scales. In Minor scales, the I is always minor, the IV is sometimes major, sometimes minor, the V is always major.

VOCABULARY: LCK/dc

consecutive tonic subdominant dominant scale chords qualities accompanying playing along with



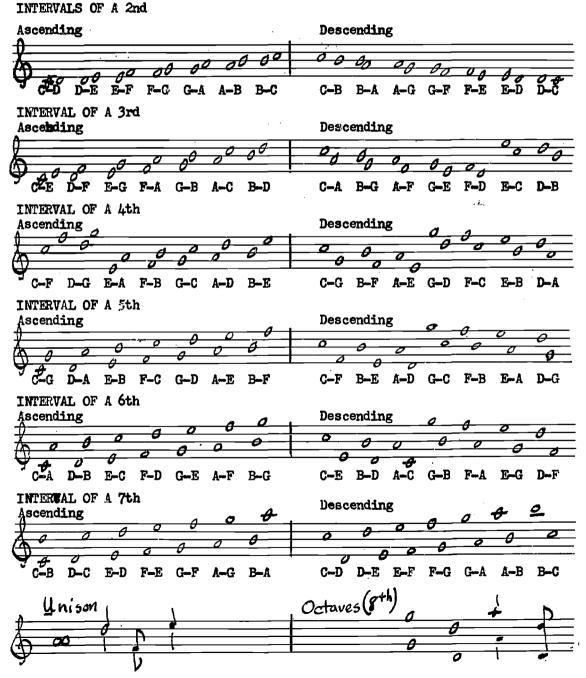
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### UNIT X - B - Page 3

### TABLE OF INTERVALS

These intervals are based upon the "white notes" of the keyboard notes without accidentals. When we add accidentals they become different
kinds of intervals. Among the intervals in this table there are examples
of all 4 kinds - Major, Minor, Diminished and Augmented intervals. For
instance, C to D is a Major 2nd (M2) - B to D is a Minor 3rd (m3) B to F is a Diminished 5th (D5) - F to B is an Augmented 4th (A4).

The important thing to remember right now is the appearance and notation of the intervals. The different kinds you may learn later.





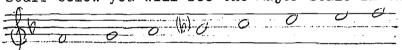
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UNIT K - Unit Test

NAME	CLASS	SCHOOL	
DATE	INSTRUMENT PLAYED	_ VOICE SECTION	

Answer as many questions as you can from memory. Check the ones you can't do. When you have finished go back to the unit material and find the answer.

On staff below you will see the Major scale in the Key of  ${f F}$ 



- a) construct your triads on each noteb) put in the accidentalsc) label your chords

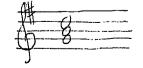
- Copy the <u>dominant triad</u> from your work above and write it on the staff below here. Now add the one note needed to make it 2. a dominant seven chord.



- Name the following ascending intervals 3.
  - b to e
  - d to f b) g to a

  - e to c
- Name the following descending intervals

  - h) e - c
  - f e c)
- Identify the following: 5.
  - a) Key of G



Intervals b) (C)(d) (e) M.A.U.P. Louise C. Kirschner 11/68

UNIT X

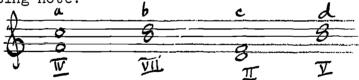
NAME		_CLASS	_SCHOOL_	
DATE	INSTRUMENT	PLAYED	_VOICE	SECTION

Answer as many questions as you can from memory. Check the ones you can't do. When you have finished go back to the unit material and find the answer.

- Tell the meaning of the following:
  - dominant triad,
  - crescendo b)
  - forte c)
  - d) allegro
  - fermata
- Identify the following intervals: 2.



In the following triads, constructed in the Key of C, put in 3. the missing note:



Spell out the following words by putting notes on the staff. 4. Use only ledger lines.



ADAGE

- Put a check in front of the instrument highest in pitch in 5• each of the series below:
  - viola, violin, double bass
  - clarinet, bassoon, flute b)
  - tuba, trumpet, trombone

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## C UNIT X page 2

a:)		e two	percus	ssion	instru	ments	that	are	" <b>n</b> oise	
					an	ıd				
ъ)		two	percus	ssion	instru	me <b>nt</b> s	that	<b>a</b> re	"music	
					an	ıd				
Fi	ll in	the l	<b>olan</b> ks	in th	ne foll	.owing	colu	nns.		
MA	JOR SO	CALE		PARA	ALLEL M	INOR			RELATIVE	MINOR
	С								A	
					D					
	E				E					
	$_{ m B}$ b									
wr	ite ar	iothei	r <b>na</b> me	which	n one r n would For ins	lgive	us t	he s	each not ame sound r g )	e <b>na</b> me d if
a)	d#	_								
ъ)	a <sup>b</sup>	-		-						
c)	С	-								
d)	PA	-								





### Answers to

Unit Section Unit Tests

Tests and

Unit I.A

1. staff

- 2. a) sharp b) 6 clef or Treble def
  - c) flat
  - d) Folef or Bass def
- 3. a) 5 b) c) (: d) 1

UnitI-B

- 1. time signatures
- 2. 3 26
- 3. accent

Unit I-C

- 1 beats
- 2- 1) whole rest
  - 1) repeat signs
  - 3) flat
  - 4) time signatures
  - 5) sharp





5 accent



#### II - B Unit



- on the 4th line
- in the 1st space

Unit II-C

- 1. half
- eighth note
- or P
- a) quarter rest
  - b) half rest eighth rest
  - whole rest e) quarter rest



II-D

- 1. a
- - $c_4^2$
- 2. a
- 3

### Unit II - E

- i) a. dotted half note
  - b. dotted quarter note
  - c. dotted quarter rest
- 2 Value or duration
- 3a J. = J DOR DADD
  - b. d. = d l or [ ]
  - c P = D POR PPA
    - Unit Test
- 1. half note
- 2. dotted half note d + d or 1 d d



Unit III -A

- L old instruments statues
- 2. Greece
- 3. Rome or Italy
- 1. lyre
- s. The writing down of music

Unct II - B

- 1. music and dance
- z. Latin
- 3. missionaries
- 4. Latin

.

Unit III - C

1 neumes 2 printing Answers to Unit 5

Section Tests and

Unit Tests
Unit W-A

2. CABBAGE, FADED BEGGED

1. BEAD AGED, ACE, EGG

Chenz notes are joined, either one is corrod)

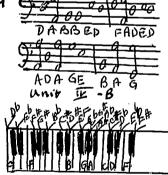
4. CAB, DEAF, FADE, ADD

5. FEED, BEEF, ABED AGED



T. FAD, DEAP, AGED, CAB

8 EGG, DABRED, AGED, FACE



or Consult Ref. Chart

Unit IV-B. Partil

1. E

2. A tetre chord is a Series of 4 notes whose letter names 90 in sequence

continued.

Unit IV -B Part II Cont.

3. a) BC
b) Eq
c) pf
e) A
f) fq
y) q0
h) bA

A. ABCDEFGA FGABCDEF DEFGABCD

G. DCB AGFED

CB AGPEDC

GFEDCBAG

Unit IP-C

GABCDEF\*G

BBAGFEBDCBB

Unit Test-Unit IV

1-2

BAGGAGE BEAB



a) a) 4 g b) GC c) G d) F G

4 Deffgabed

5 FEDCBBAGF

3. choirs 4. So the music of the service would be the same at all churches Unict III-D 1. Guido d'Arezzo 2. F 3. Guido d'Arczzo 4. The Grand Staff 5. He was a teacher of music Unit III -E 1. C 2. F 3. G 2, Key 3. 1. Viola music 2. Music for male voices instruments 4. Cand F 3<sup>nd</sup> line Unit II-F 2 ¢ 3. dot 4. 2 Unit Test-II 1. GCF 2. Guido d' Arezzo 3. Greeks

6. Rome or Italy

1. 14re

Unit Section Tests and Answers , to Unit Tests cont. Unit V-A Unit 11-1 ant Unitrii-1 2. noise 1. Music 5. accents 1. modo 4. percusision s. wind 2. 3nd 6. slur 5 flute.
6 (3 of those) any of the drums tambouring, triangle, cymbals gong, castanets. Unit 11 -2 getting faster and 5. ascending 7. (3 of those) Kettle drums on 2. held. back melodic Tympuni, chimes, glockenspiel, minor 3. a little fast celesta, xylophone 6. natural 4. fast Unit 亚-2-1 melodic . 5. little by little 1- (In any order) harmonic itrumpet 2 trombone 3 funch horn A tuba 2- 72 Unit I -B 3 a - conbrio 2- mouthpiece 1. 6th b- piu c - grave d - poco 1. GABCDE, FG 3 - valves d poco e rallentando 4. Any 4 of answer to 3 E unit VII band 7 4. Eminor. ritardande 5.1)# Unit IIs Hamm F GABCD F 1. a) softer Mel. asc #GABC##E softer dese. ED LABAGF#E Unit 1 -2B softer A) softer Nat E Plaanc De 1- Flute, oboe, claning, bassoon 2. a) or bassoon S. FGABBCD, EF 2. Oboe 6) 3. flute or piccolo c) 4 - stopping "holes" with the fingers or the padded 6. D 7. Harm.
DEFGA BE\*D 3 > or Decress OR DIM. metal key Mel. and DEFGABICHD. 4. dim. 5. All wood winds - Any 2 Mel Desc 486AGFIZD Unit M-Unit Unit VI - 0 lest. b) Viola c) cello a)violin Nat. Defga Bbcd 1. Time signature d) double bass of Bass violin Unit I-C tempo 2. Double bass or Ban violin dynamics 1. Same マ まず 川切 11117 11 3. Praving a bow ocross 2.a) e minor the strings or plucking. 2 b) f# minor 8 1 DI DI 221 [NIZ] b minor 2 0 4. guitar 3. modulate 4. 3 nd. VIL Unit 1- a) SB Unct VI-1 loud c) p 1. 2 getting louder 2. ternary e) 3 c with  $\binom{3}{8}$ VIGOR d fast 2 String 4. a. 3. percussion. Ь or Flute piccolo c. S. Brass 144

Answers to Unit Section Tests and Unit Tests ----

Unit VIII-A

1. 2 # 6) 4

2. higher

3. abcdefandq

4. a) double sharp

b) sharp
c) natural

d) bouble flat

Unit. VIII -B

1. 00

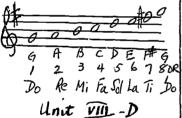
2. do

3. Germany

4. Hor ahsh

5. Letters or names. name special pitches. without ever changing. Do or Ut is always "C"

Unit VIL-C



1,  $1-5^{\circ}-D$   $2-2^{\circ}-5T$   $3-3^{\circ}-M$   $4-7^{\circ}-LT$  $5-1^{\circ}-T$ 

 $6 - 3^{\circ} - M$ 

2. movable

Unit vill - Unit Test

1.Dominant 2 84

3 accidentals

4. Vibrations

5 a) diese

b) be molle

c) 5°

Unit IX-A

(a) (b) (c) (d)

2. a. repeat b-end c-sign.

Unit IZ-B

1. Any time signature with top number 2

a.s. 2 2 etc.

2. Any time sig. with top number 3
as 3 3 3 hetc.

3. Any variety

1. @ 5 (6) 2 (4) 8

Unit IX-C

1.4) 2 3 2 0R 28 0R

b. c c. I or M Unit IX. Unit Test

1-a) 15+ line above state

b) 2nd space below staff
c) 3nd space above staff
d) 1st space

2- Viola

3-Repeat signs

4 Dal Capo

5 a) 4

b) 5 3

Unit X

1. pitch

2. a) blue et a que du q

b) a to C eto E FtoA

e) 9 to B AtoC DoF

3. Pq ce ef ab

Unit X- Unit Test

III ELIMA



3)a) 4th 5) a I

c) 2nd b (a) 6th d) 6th (b) 4th

4) a) 6th (c) 3 rd

b) 3nd (d) 5th

d) 7th

(e) 6th



## Answers To Comprehensive Tests

Unit 1. 1. beats 2. i) whole rest 2) repeat signs 3) Adt 4) time signatures s) sharp 3 (5 lines) 5. accent Unit II ) a) Flat b) Natural 2 Time Signatures 3. Circle around 3,6,2 5 a) 5 lines b) 4 spaces 6.0

999 ·Unit I 1 a) G clef or treble clef b) sharp c) staff d) broken circle on imperfect time or e) quarter rest 3 Song 2) 2) b dance 8)0 religious 9: 'worship martial uses in war time

Unit 1 1 ) time signature natural 5) Bass clef F clef 3 #5 3 1. - PPP 4. C 5 6 badge fed caged Unit Z 1. harmonic natural melodic 2. 3, 2,3,9 adadat 3, 5, Unit 妅 1 a) slur b) accent W. g) e) 3) a Eminor (b) C#minor

4) a)

eminor

21 500 15171

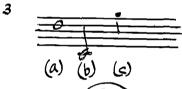
b) c#minor

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Unit VII 1) diviolin b) viola c) cello a) bass violin OR Double bass 2 a)trumpet b) piccolo c) violin d) flote 34 3) A BED , CAGED, FADED *عرم ۱۰ (5*) 2. p 3. mp 4. mf 5. F Unit VIII 2)a-cG b-AB G-G-D d-CE 3) a - flat b-double sharp c, - Crescendo d-ritardando -natural f-sub dominant 9 - fermata h-quarter rest Answers to Comprehensive Tests Cont

### Unit ix

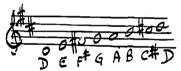
- Da o
  - b. ×
  - d. ZORNOR A
  - e.
- 2 Winds
  - a) wood winds
  - b) brasses



4



5)



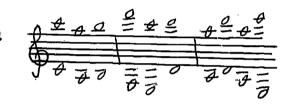
a ard note F# to F9

### Unit Z

- 1. a) triad on the 50 of the scale
  - b) getting louder
  - c) lova
  - 1) fast
  - e) hold

- ۸ ۸ ع ۸ م
  - b) 5th
  - c) 6th
  - d) 2,nd





- 5 a) violin b) v flute c) v trumpet
- 6 Any 2 of a) or b)
  - a) Any drum except Kettledrumor tambourine, cymbals, gong, triangle.
  - b) Tympani chimes, orchestra bells, celesta, xylophone

- d) \_ Bb G
- 8) a) eb
  - b) 9#
  - c) 91.#
  - d) a#

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Preface to Illustrative Materials Developed for Use in the M.A.U.P.

In most music books the staff in relation to the keyboard is pictured as follows:



This picturization is often confusing to the beginning musician especially if he is not concerned with learning to play a keyboard instrument. The concept of "high" and "low" was developed from the human instrument - the voice. The staff lines developed concurrently with innovations in pitch and meter indication.

Most of the secular singing was a capella at first and unison. With the introduction of instrumental writing the notation developed for the voice was retained even though "high" and "low" do not pertain to instrumental fingering or the construction of most musical instruments.

Chart I was developed and tested in the first junior high school summer music schools in a class where students were being taught to read music and as a result of their difficulties with the concept pictured above and their questions the idea of the Chart was conceived and proved successful. Charts II and III and others similar should be produced in quantity so the students can work out particular problems of reading that occur.

Charts IV, V, VI, VII and VIII present Major and Minor scales in a variety of detail. They include the use of the Bass and C clefs for instrumental students. They present the concept of parallel and relative minors in a number of ways. They introduce the idea of transposition. They should be used as reference material and students should be encouraged to consult these charts as often as they find necessary.



### Preface (continued)

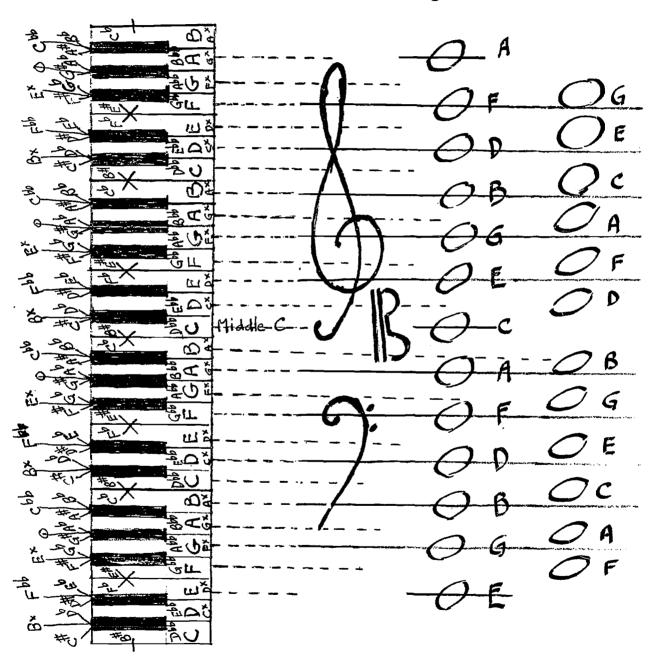
Bowing exercises were produced to augment a printed text which did not offer sufficient exercise material and to show a teacher how, by exercising a little imagination and ingenuity, hundreds of additional exercises can be created by teacher and pupil to fit the specific needs of a specific class. It is wise to choose a section where the teacher anticipates difficulty in a yet to be performed piece and make this the basis for a special exercise before the students are introduced to the written score. When they receive their parts, they should be encouraged to find the sections similar to the exercises practiced and play these first. A spot which might take a disproportionate time to explain and perform during rehearsal of a piece in the repertoire is then tackled with ease and also proves the benefit of correct practice of exercises. Pupils may later be encouraged to find "spots" where they anticipate difficulty and create their own exercises.

The balance of the illustrative material is a sampling of some of the rounds and their arrangements for wind and string classes as they were produced to fit the performing capacity of the students. Written in this form, like an orchestral score, they can also serve to show harmonic patterns, the interval and chords.



### THE GRAND STAFF AS RELATED TO THE PIANO KEYBOARD CHART I

Notice that with the exception of the black note called either F# or G|0 each note on the piano has three possible names. The sign x is used to mean "double sharp" since two sharps, one after the other (##) take too much room to write out and then look confusing.

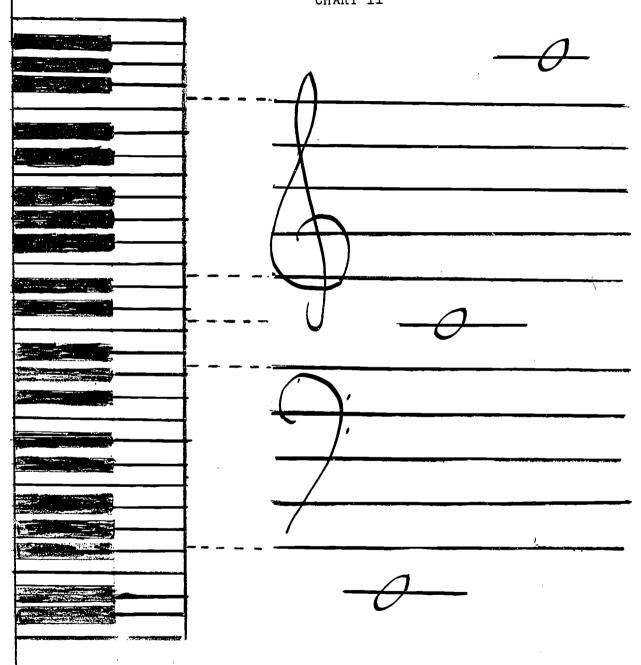


We become familiar with the piano keyboard because it is the easiest way to show whole tones and semitones or half tones.



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# THE GRAND STAFF AS RELATED TO THE PIANO KEYBOARD CHART II



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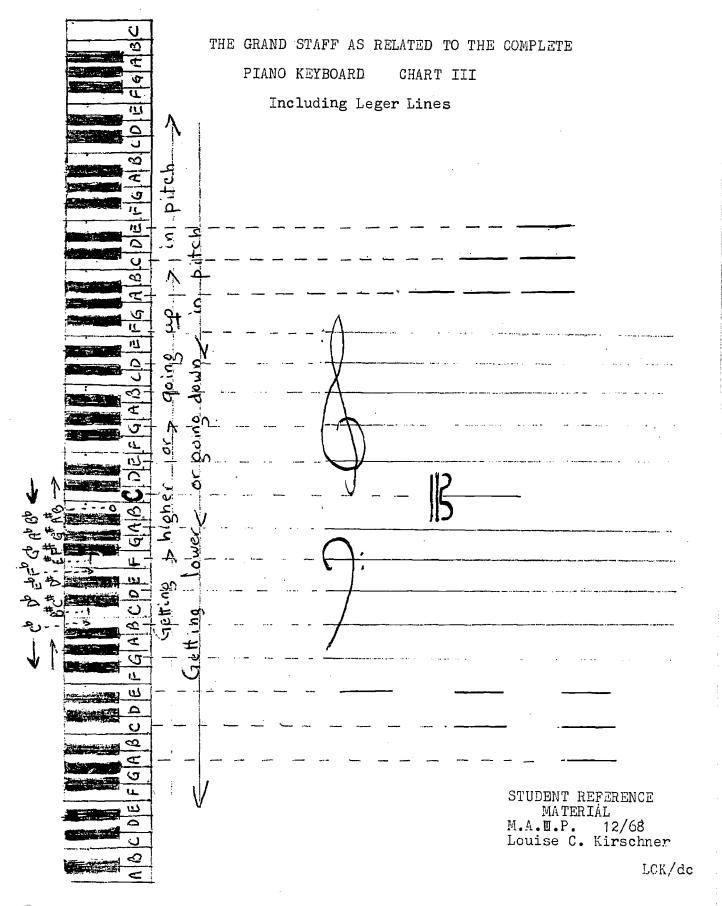
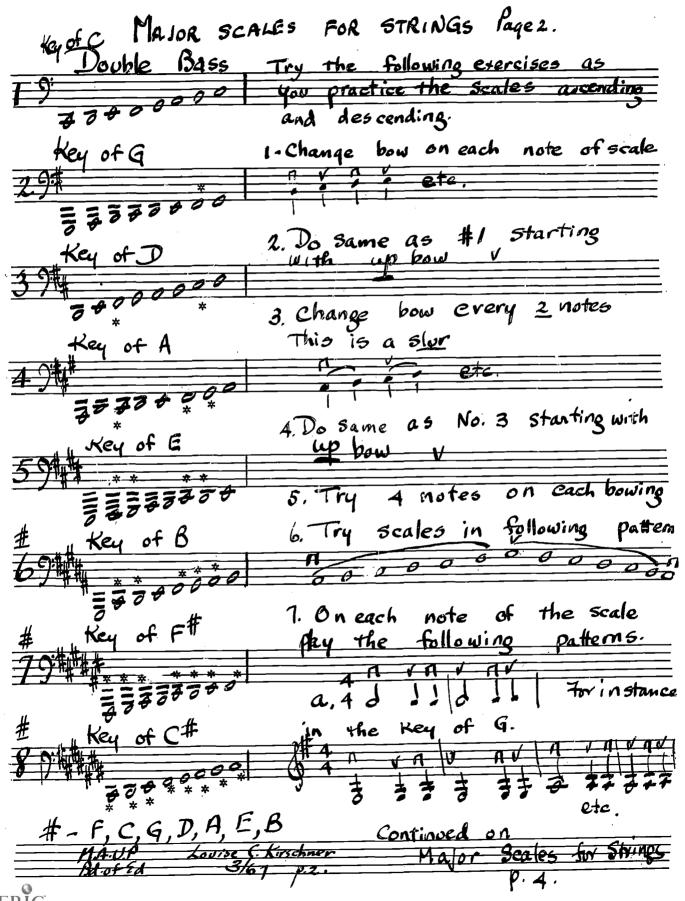




CHART IV



ERIC





rowlas



Major scales FOR STRINGS page 4 BASS Double Seehow many phythms add. 0, M.A.U.P. Bd. of Ed Louise C. Kirschner

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MAJOR Find your instrument Key of F = 16 key name and the column that it heads. In the first column you will find the name and number of the scale the class Key of Bb is to play. On the same line, in your column, you will find the number of the scale you will play. Key Scale Name SCALE NO. FOR Key INSTRUMENTS Name 1 C 2 G 2 3 5 3 D 4 A 6 5 E 6 Borc Key of Gb. 7 F#orG 8 C#orD 9 A V 10 E 11 Bb 12 F -- Watch the Flats

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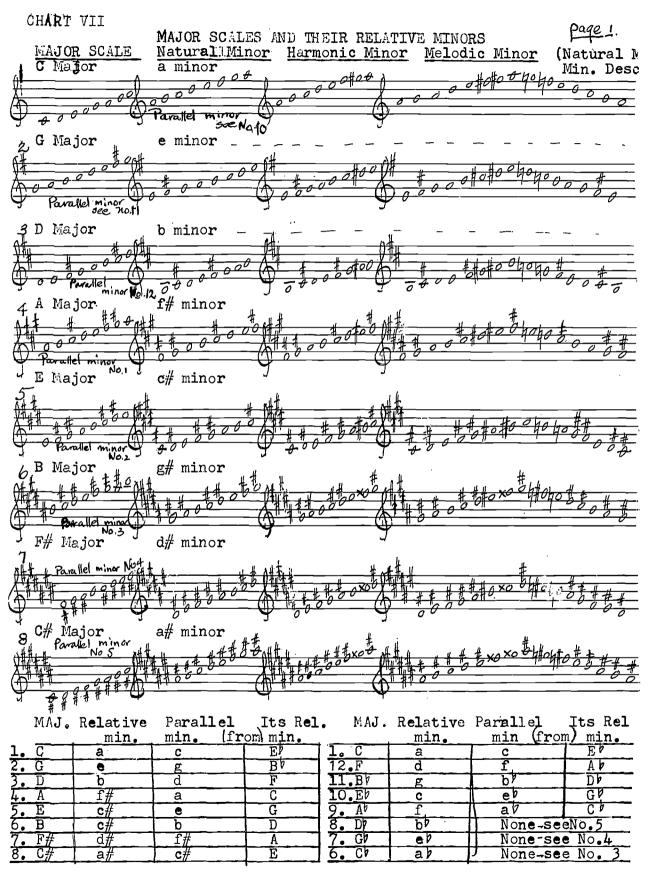


CHART VI MAJOR KEYS PARALLEL MINOR KEYS DIFFERENT name DIFFERENT key signature Key of C Major- no # no V Key of a minor-no # nor Key of C minor Key of G Major - 1 # Key of e minor 1 # Key of g minor 20 Key of D Major 2 # Key of b minor 2 # Key of d minor 10 Key of f# minor 3 # Key of a minor Wey of A Major 3 #no #nob Key of E Major 4 # Key of <u>c# minor</u> 4 # Key of e minor 1 # Key of B Major Key of g# minor 5# Key of b minor 2 # Key of F# Major 6# Key of d# minor 6# Key of f# minor 3# Key of C# Major 7# Mey of a# minor 7# Key of <u>c# minor</u> 4 # Sharps are added in this order F.C,G,D,A,E,B MAUP -Louise C. Kirschner STUDENT REFERENCE MATERIAL 3/67 Bd. of Ed.

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RELATIVE MAJOR AND MINOR - Same key signature - Minor begins on and takes its name from the 6th note of the relative major.

Parallel Major and Mindr. Different key signatures. Major and minor begin on the same note and therefore have same name.

Natural minor- Uses only sharps or flats of the key signature.

Harmonic minor - Raise the 7th note of the minor scale a half step.

Melodic minor - Raise the 6th and 7th notes of the minor scale a half step each in the ascending scale only. Return them to original position in the descending scale. (Natural minor when descending)

### Reference Material:

Chart VIII

### How Many Major Scales Do We Have?

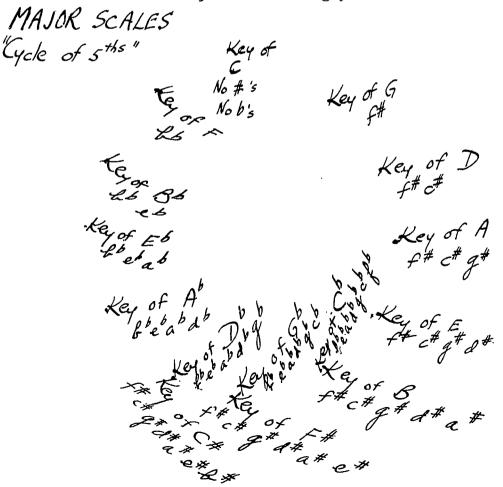
We construct or build scales so they have no sharps or flats or from 1 to 7 sharps or 1 to 7 flats. This gives us 15 scales. But, there are only 12 half steps or tones within the octave! If you will look at your scale charts labeled Major Scales For Strings you will see that scale  $\underline{6}$  has  $\overline{5}$  sharps or 7 flats; scale  $\underline{7}$  has 6 sharps or 6 flats and scale  $\underline{8}$  has 7 sharps or  $\overline{5}$  flats. These scales "overlap" - three of the "sharp" scales sound exactly like three of the "flat" scales.

If we start with no sharps or flats we are in our first "pattern" key - C major CDEF - GABC. We find that if we start with the 2nd tetrachord, GABC, in the ascending scale, we get a scale with 1# G A B C - D E F# G

If we start with the 2nd tetrachord of G major or D E F# G - we get a scale with 2#'s or D E F# G A B C# D- and so on. Since the 2nd tetrachord begins on the 5th note of the scale we call this our cycle or wheel of 5ths.

In order to get the flat scales we use the 2nd tetrachord of the <u>descending</u> scales.

We often show this by the following picture.



## Illustrative Music Material:

Bowing Exercises

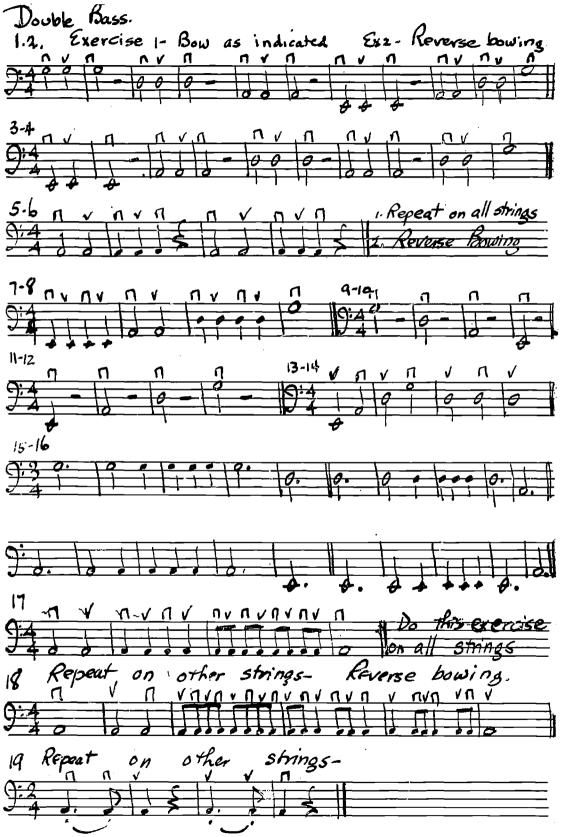
Rounds for Voice

Rounds for String

Rounds for Band

Rounds for Wind











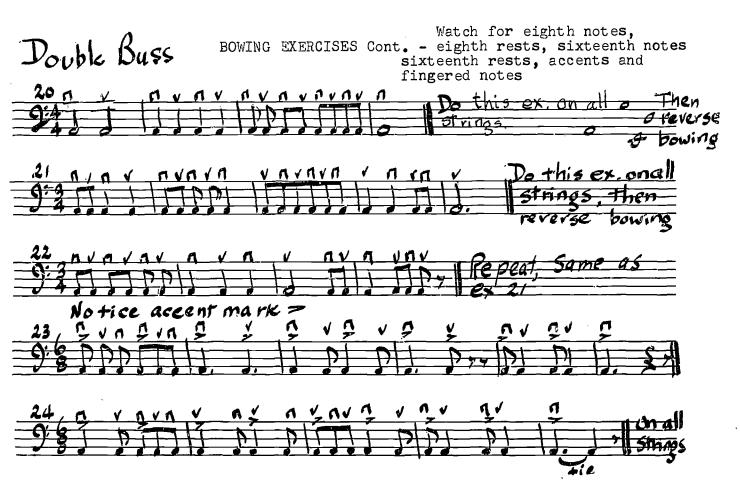
## Violas.





## Exercise 1- Bow as indicated. Ex 2 - Reverse bowing -- Reverse 168

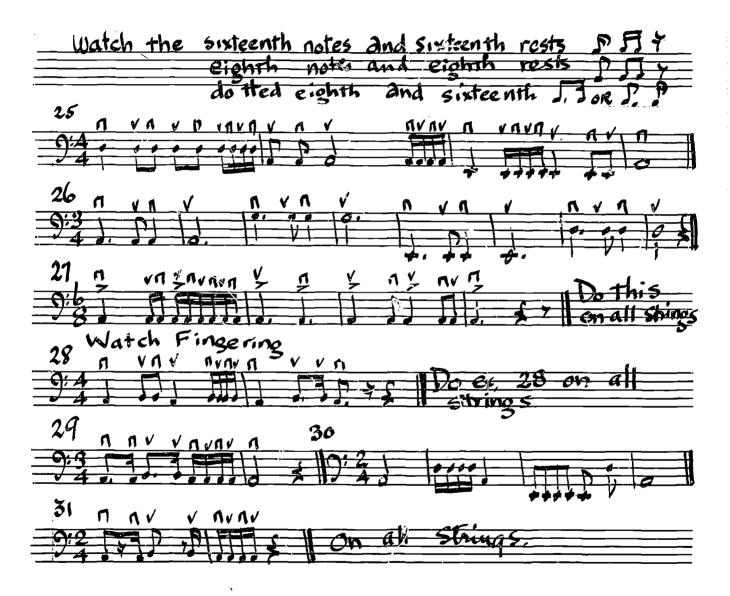






DOUBLE BASS

(continued)



Watch for eighth notes eighth rests
BOWING EXERCISES Cont.- sixteenth notes sixteenth rests
accents and fingered notes



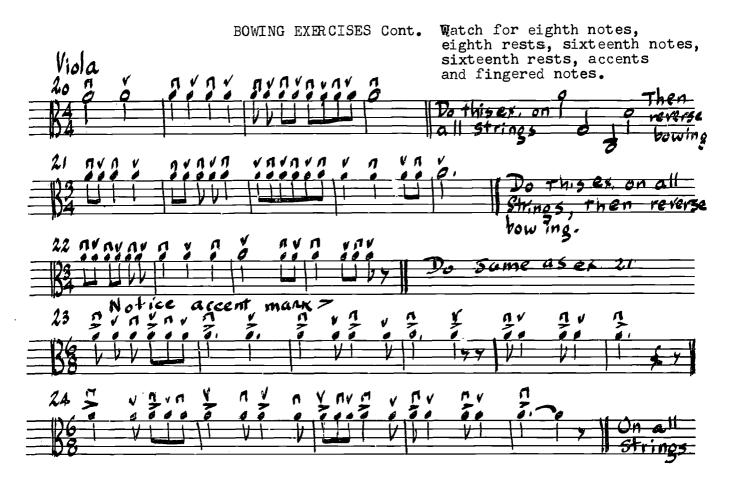


Violin

(continued)



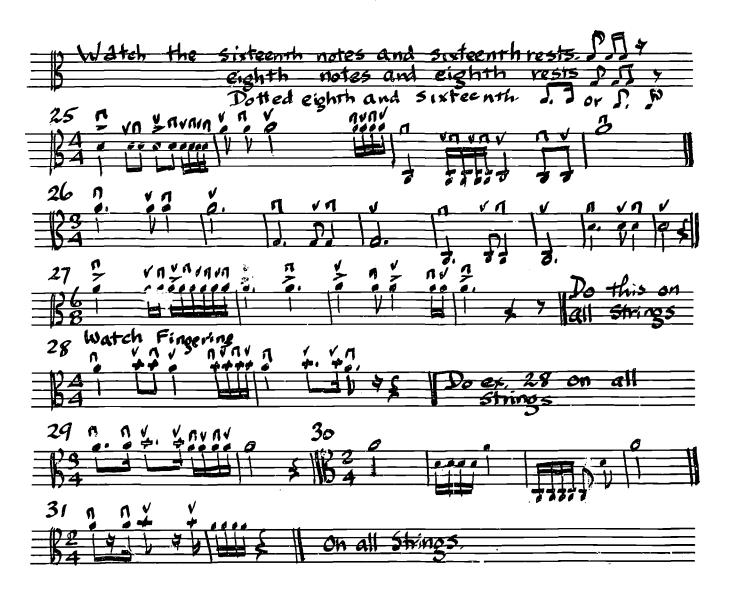




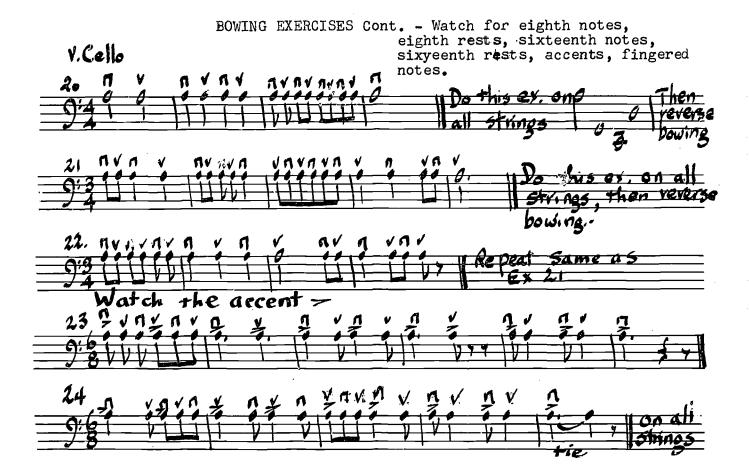


Viola

(continued)

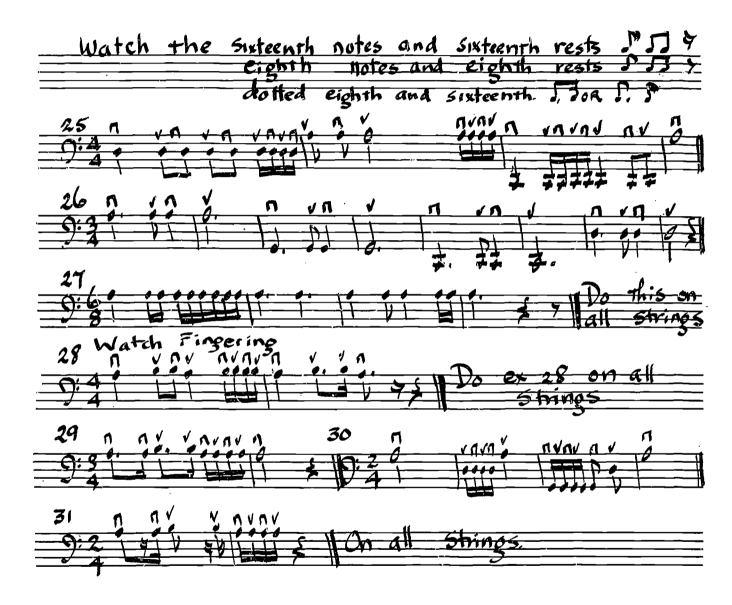






V. Cello

(continued)

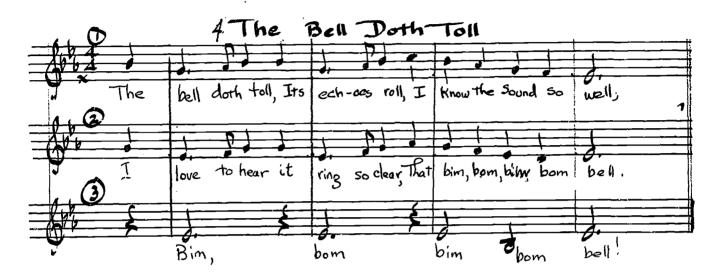


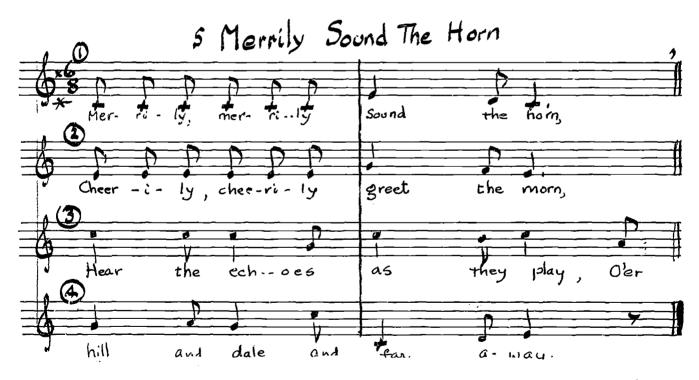
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ROUNDS FOR VOICE

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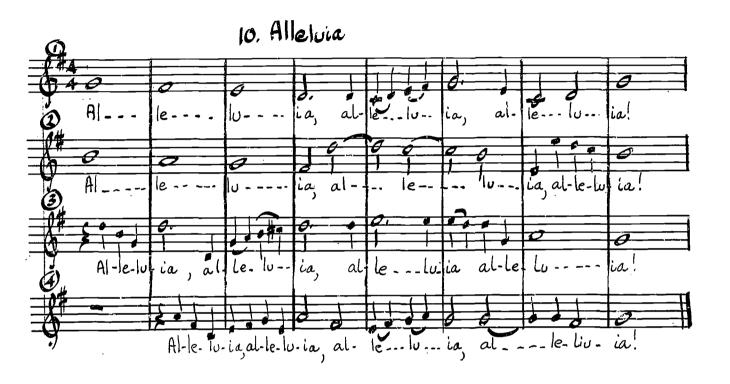


ROUNDS FOR VOICE



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ROUNDS FOR VOICE





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ROUNDS FOR VOICE

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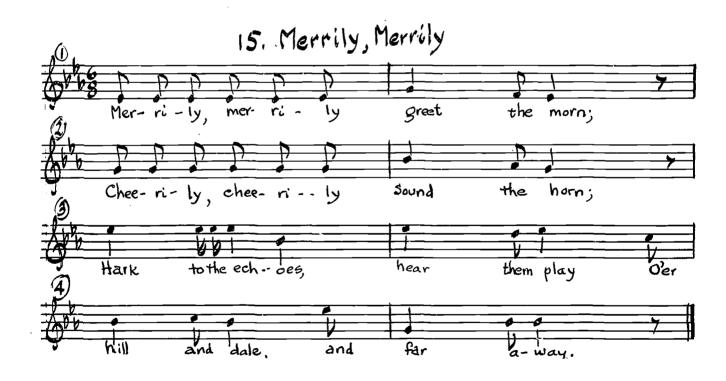
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ROUNDS FOR VOICE

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LCK/dc



ROUNDS FOR VOICE



LCk/dc



Q Louise C. Kirschner exp. mat. 12/66 LCK/dc M.A.U.P. Bd. of Ed Kounds for Violin 4. The Bell Doth Toll Strings. bell doth toll, It's ech - oes roll, Know the Sound so well. V M Ţ love to hear it ring so dear, That bim, bom, bim, bom bell 5. Merrily , sound the Horn O. Bim Sound horn, Merri -Th e Cheechee-ر بوا rù greet the morn, Hear they the ech - -. 065 play, as 01er dale London's 11:1 and way Burning 6. burn - - .. ing born -ing! dook yon -- - der, Look gondo --- er! Fire! Fire Fire! Fire ter. on

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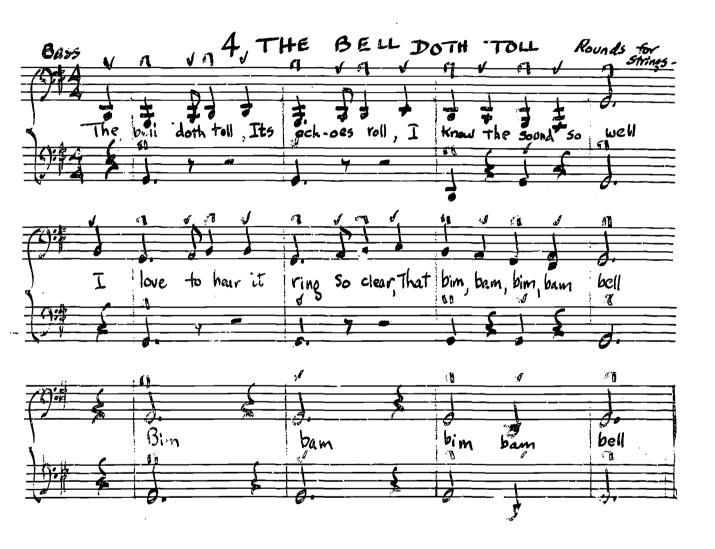






















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Inst. A. Reg.
B. Alternate (continued)











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Inst. A. Reg.
B. Alternate (continued)



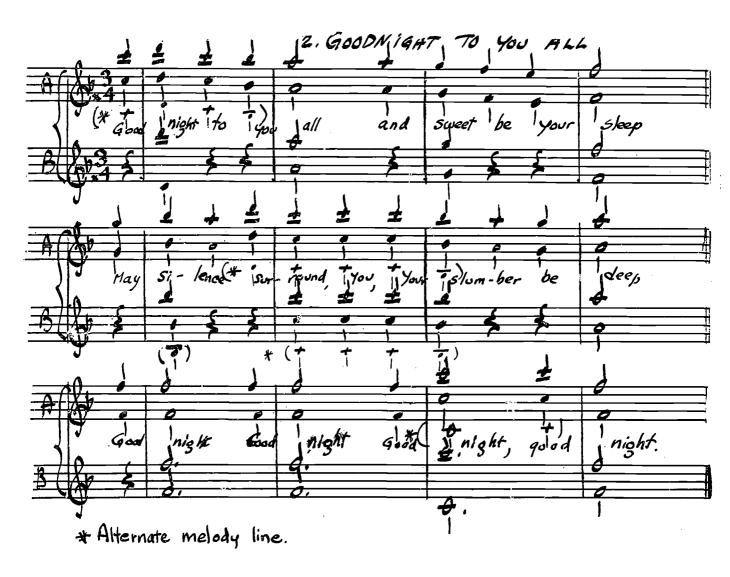






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C. Inst.
(Treble) B. Alternate (continued)









Inst. A. Reg.
B. Alternate (continued)





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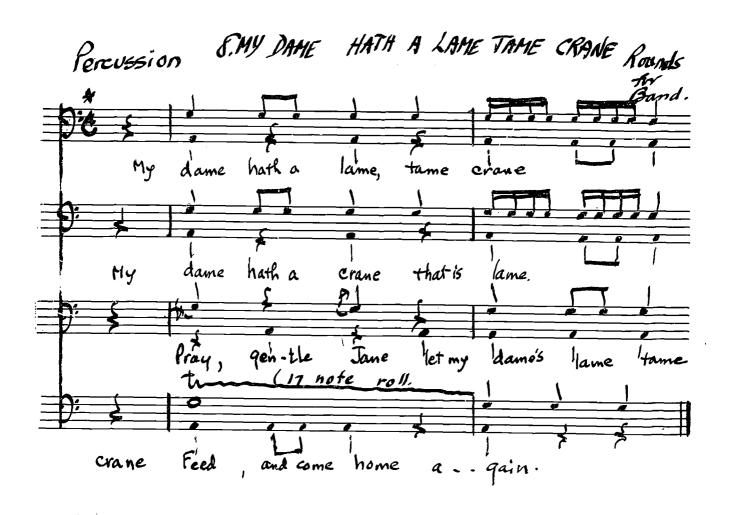












At The time Signature C (The broken circle) is a carry-over from aburch music Writing It stands for 4









\* The Time Signature & (The broken circle) is al carry-over from church music writing It stands for 4

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