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IDENTIFIERS Career Exploration

ABSTRACT

Currently relevant topics in English, biology, architectural skills, and occupations are presented in four teaching units for Grade 10 by means of model lesson plans, unit projects, and a variety of student worksheets. Supplementing the teaching guide are lists of resource and reference ideas ranging from visual aids to vocabulary terms and learning activities. As the second volume in a 3-year comprehensive interdisciplinary program in industrial preparation for vocational students, the guide represents a part of a year-long developmental program with a laboratory approach. Approximately half of the volume consists of four separate thematic units aimed at developing language arts communication skills within the English curriculum. The four subjects discussed are (1) newspapers and magazines as examples of mass media, (2) self-understanding derived from discussions of speech, psychology, and literature topics, (3) photography, and (4) correlated language arts activities. Methods of implementing behavioral objectives for each outlined unit are suggested in the detailed unit and program introductions. The volume is planned for use with four others, available as VT 015 227-VT 015 231 in this issue. (AG)

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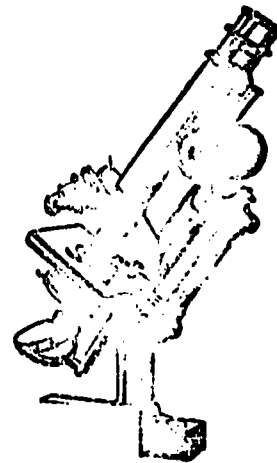
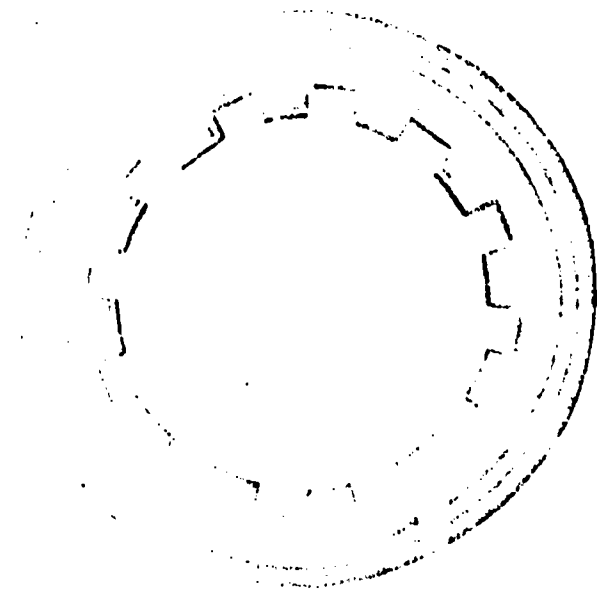
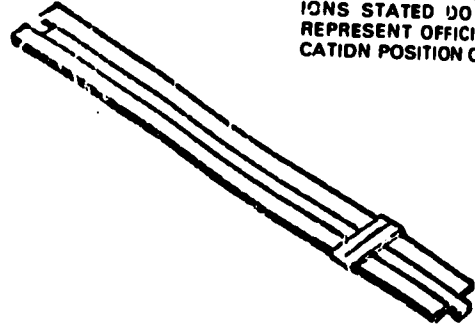
# INDUSTRIAL PREP

## Volume Two

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### Sophomore Year

BIOLOGY  
ENGLISH

ARCHITECTURE  
OCCUPATIONS

## Blackensack High School

VT 015 228

## Introduction

Industrial Prep is a provocational, interdisciplinary program. It was developed in Hackensack High School because of the need to provide a curriculum that would be consistent with the demands placed people entering occupations in the 1970's.

Educators have jumped from one extreme to another during the last two decades. In the 1950's the magic word was 'gifted', and now we are becoming fully mobilized to meet the problems brought on by the "disadvantaged." Along the way we have neglected to stop and consider the majority of the population the so-called 'average' people, who are to become the backbone of our nation's work and life forces. This program takes these people into mind as well as the others.

We believe that the development of manhood is more important than the development of manpower. We also feel that our obligation as educators is to help people prepare to meet all of their societal roles, including work. That means that we should be able to help young people get ready for a personally relevant vocational future. However, at the same time we expend much effort in seeing that this program includes materials and experiences that work toward the total development of the individual.

When consideration and planning for the Industrial Prep Program began, a few guidelines were established. We based the program on the following organizational assumptions:

1. That we would receive no money to help us for either salaries, materials, or equipment.
2. That our then existing facilities would have to be utilized with no hope for modification or addition to them.
3. That teachers for the program would be recruited from our present staff.

Essentially we felt that no windfall would find its way to us and that we would have to use what we had, but in a different way.

The first year of preparation was devoted to the researching and the gathering of insights so as to develop a relevant, logical philosophy. Besides the reading of books, journals, and periodicals of all types, we spent a good deal of time in the field. The field being many of the major and smaller business and industrial concerns in the metropolitan area. Frequently individual and collective groups of employers and employees were invited to the school for discussion. The talk centered primarily on asking these people, "what are the basic characteristics of a promising employee?" The responses gathered from these interviews along with the materials read in the research were to become the foundations of our program.

Some of the tenets that we adopted because of this preliminary work are:

1. That a person should be able to apply his total education to his daily living and in order for him to do so he must be taught well, with useful materials.
2. That as Donald Super states, "self-knowledge is prerequisite to self-determination." Before either vocational or social decisions are to be carefully made a person must understand himself.
3. That the technical world calls for a multi-faceted, flexible well educated person.
4. That cooperation is essentially more important an attribute than competitiveness.
5. That the total community is the educator of a student, not just the school.
6. That the interdependence of disciplines should be an essential appreciation by each student as well as being a truly visible means of presenting teaching material by the staff.

Taken one at a time, these are not earth shaking contemporary thoughts, but, absorbed into a prevocational secondary setting, they become a unique set of premises on which to found a program.

In meetings with the people who work in and hire for industries, we did not come across any who held that special skills taught in high school were absolutely necessary for employment. Nobody told us that a trade learned in school was the passport to instant industrial success. In line with this is an article that appeared in the April 4, 1965 issue of the New York Times. It told of a minority report of an extensive study by an eleven man vocational education commission in Nassau County, New York. A section of this study "pleaded for recognition that fewer occupations than is generally believed, accept specific school-acquired skills as a prerequisite for employment." This 44 page report was never published due to conservative opposition. What we found requested by employers was a need for high school graduates who essentially could read, write, and be able to apply mathematics and scientific fundamentals to work problems.

In developing the program, we bore Dr. Super's consideration in mind. In the available literature that we were exposed to there was nothing that corroborated the wisdom and stability of an early career choice. In fact, everything cautioned against this. Therefore the Industrial Prep Program offers ample room for the exploration of vocations along with provision for self-understanding necessary to make such a decision.

So much has been said for the necessity for man to be educated for change that to elaborate on this would be presumptuous. However, I think that Robert Hutchins, former President of the University of Chicago and the present Director of The Center For Democratic Institutions advances

an observation that we believe in. The most obvious fact about society is that the more technological it is the more rapidly it will change. It follows that in an advanced technological society futility dogs the footsteps of those who try to prepare the child for any precise set of conditions. Hence the most impractical education is the one that looks most practical, and the one that is most practical in fact is the one that is commonly regarded as remote from reality, one dedicated to the comprehension of theory and principles. In the present state of technology, and even more certainly in any future state thereof, the kind of training and information that is central in American education is obsolescent, if not obsolete. Now, the only possible adjustment that we can give the child is that which arises through putting him in complete possession of all his powers. Our aim is to provide as comprehensive as possible an exposure to life and the tools of living and working so that the Industrial Prep student will be equipped for change.

A quote from the Kaiser Aluminum News of November 1, 1963 illustrates the point to be made in promoting cooperation. "As the grade system has traditionally been used in the past, each student is pitted against the other. Yet in the real world in which he will live as an adult, his most important ability will be his willingness and skill in working cooperatively with others. This is particularly true in the business world, which is predominantly a cooperative enterprise and not a competitive one. No automobile ever got designed, engineered, produced and distributed without the cooperation of literally thousands of people. Competition occurs only in the ultimate market place.

The Industrial Prep Program recognizes the limits and fallacy of the school as being the sole educator of a student and at the same time appreciates the potential of the community at large to take part in education. Tapping community resources in an integral feature in presenting many parts of the program.

Finally, in reviewing the program foundations, we come to the heart of the means of implementation, that being an interdisciplinary approach to education. By correlating the efforts between core areas of the program we feel that we are better able to bring significant meaning, interest, and enjoyment to learning. In retrospect, this has for the most part been borne out. To identify the natural relationships between disciplines and use them to enhance a learning situation is the key to the plan.

What we in Industrial Prep are trying to do is to present what Robert Hutchins maintains is a liberal education but with a flair toward the occupational. He says, "eliminate neither training nor the imparting of information, but use them in a different fashion." This we try to do.

The approach to the interdisciplinary scheme is similar to the Richmond Plan, but includes a different series of teaching units for different people. The interdisciplinary team that we use is made up of people from the mathematics, science, English, and industrial arts departments. Resource people from within the school that are integral parts of the program come from the social science, guidance, and special services areas. Our use of resource people from without the school includes men and women from numerous specialities and fields.



The method of correlation focuses on central problems. Each year of the three year program contains units that have a commonality of basic properties that are relevant to the participating teaching units. For instance, in the first year (the sophomore year) the basic theme is measurement and the guiding subject is mathematics. In each of the years there is a different guiding subject, one which sets the pace of correlation by the depth and amount of work covered in that class. Correlation is not done on a daily basis, nor ever forced. If a natural relationship exists between instructional areas in particular units it is capitalized on to reinforce learning and to make it commonly relevant to the total learning going on in the program.

For the measurement theme there are four projects that are used to explicitly bring the teaching areas together. They include such disparate names as duct work, geometric patterns, properties of metals, and packaging.

The first project of duct work is an effective opener for us. It works out to be a scaled down air conditioning duct system made out of a few materials. We like it because it does a good job of introducing the interdisciplinary approach to the students, it's good for the development of mathematical fundamentals, it enables the youngsters to achieve positive tangible results from their theoretical learning, it introduces the concept of cooperative work, and it permits the development of an occupational plan. This is how it works.

The mathematics instructor brings the boys to a point where they can lay out a duct section using basic arithmetic. He has them fabricate this with cardboard in his classroom, giving them an opportunity to engage



in manipulative work is an academic setting. This is done on a group effort with students of varying abilities intermingled. What happens in that simpler pieces of the system are made by slower students and more complicated parts, such as a transition piece, is constructed by a more able person. The boys in the group must have their pieces fit together and this affects characteristics of individual responsibility as well as all-out cooperation.

In the drafting room the unit is simply drawn giving the students the opportunity to become attentive to precision as well as introducing basic drafting techniques.

Besides developing a related technical vocabulary with the boys, which is a common enough approach to interdisciplinary work and certainly not an exciting part of it, the English teacher creates an inter-personal work atmosphere by utilizing a Tele-Trainer borrowed from the Ball System. This device is used to role-play a problem condition set-up between a customer and an employee of a heating and ventilating company. Students prepare and act-out a situation that might sound like this: 1. the customer calls to complain about lack of heat in a house, 2. complaint is accepted by employee with tact and understanding, 3. employee tries to troubleshoot over the phone, i.e., did you check emergency switch?, 4. employee then evaluates and acts on disposition of complaint. All of this is dramatized with much side-play of conversation and is recorded and played back for student analysis as to not only diplomacy, effect of communication, but also for speech and style of delivery.

Biology is a school required subject in the sophomore year. It lends itself to this unit by providing the students with an exploratory

series of experiences with the human circulatory system. Nothing in depth, but just an overview is offered. Along with this, a tree's duct system is also discussed.

The metal shop is reserved for these students so that they will have some opportunity to fabricate the group duct systems in a shop. All of the boys do not take metal shop at one time, they may elect other industrial arts areas so other arrangements must be made. For instance, the metal and drafting classes might exchange periods and thus give the Industrial Prep students a chance to occupy the shop together. All industrial arts instructors, that can be spared at that time, join forces to give as much concentrated assistance as possible for the project.

A resource person from the social science department presents a program on the ways people heat and cool their buildings around the world. This is done with a profusion of visual aids and delivered in a relaxed atmosphere as a general interest program.

An occupations unit on sheet metal, air conditioning, and heating trades is correlated to the major project. Representatives from occupations in these fields are invited in to be interviewed by the boys. No speeches are given but rather the students ask objective and subjective questions of the visitors so as to obtain a comprehensive background about each of the job areas.

To further make the total project more relevant, short, period long field trips are taken to local business and shops that engage in related tasks to the units covered.

This type of correlation is not forced nor scheduled so as to prove

inconvenient to the participating teachers. If an instructor in a particular discipline feels that he needs more time to develop some teaching material and that this might hamper the correlation schedule, then at the weekly meetings other arrangements are made. What we have found is that there have been very few occasions where total involvement was not possible. The extent of the interrelation of subjects in any unit is dependent upon the imagination and creativity of the team.

At weekly meetings the instructors themselves receive a broadened education because of the necessity of each of them knowing what is going on in the other guy's class. In order for a person to present a correlated unit he must have an idea of not only what is scheduled in the other classes but should have a working understanding of the instructional matter.

To further demonstrate the methods used in relating all of the areas we can summarize the next sophomore year unit; that of geometric patterns. In this section the mathematics teacher develops, what the teachers feel is the foundations for building the academic proficiencies and methods of attack for further learning. Here the math man combines the abstract with the cognitive in having the boys sharpen their arithmetic tools. The English instructor, with the assistance of both the drafting and mathematics people takes the students on a world tour, using slides and narration to see the designs and patterns of nature and those developed by man in interesting settings. At the same time the free reading library in his classroom features books and magazines that reinforce this unit, while a field trip to the Whitney Museum in New York is arranged with a guide to show the boys the geometric designs in art.

Occupationally, the field of architecture fits very well into this unit. Inter-class correlation is easily woven into a unity like this because the technical nature of the material plus the abundant availability of similar subject matter in various settings blend well together.

The junior year of the program features physics as the guiding subject. This is an applied physics class. More work time is spent in the laboratory than in a lecture room. The instructor of this class has developed a detailed program guide for the applied physics work that is especially geared to capitalize on the mathematical foundations acquired by the boys during the sophomore year as well as their increased abilities in problem solving situations. The physics class is a practical, exploratory experience for Industrial Prep students. Many of the projects worked on in the labs have been designed by our instructor. His methods of teaching mechanical advantage and other areas of physics are most unique. He uses everything from surf casting rods to bottle openers to get the youngsters to discover the basic, working theories in physics.

We tie in second year mathematics very closely with physics and also include directly related English units on the senses, critical thinking, how to describe and define, and science fiction.

In the senior year, chemistry is the key subject. Again this is an applied lab science with very relevant units on foods and their additives and applied, everyday chemical exploratory experiences.

We have found that because of applying theory to practical, relevant experiences, both in physics and chemistry, that the students come away from these classes with sound, fundamental science backgrounds. The

chairman of the department takes a deep sense of pride in the Industrial Prep science students and often speaks of them as being better equipped than an average college prep person in truly understanding science. Our students are not rewarded for memorization, but receive their satisfactions in learning how to apply their knowledge.

Many of the Industrial Prep students enroll in a cooperative work program in their senior year. These youngsters receive an opportunity to engage in on-the-job training experiences in an occupational area of their choice. The cooperative program provides them with one half day in school and one half on the job. Beside the specific work training function of the program it also enables students the chance to become part of an adult occupational environment and to try out their various strengths and characteristics in a new social situation.

I think that a glimpse into the teaching materials used by some of our teachers would offer more insights into what makes this program a little different.

An interesting paragraph heading of the introduction for our second year English guide state that "The Automobile and Television Set Probably Teach the Student More Than the School Teacher," Based on the observations and experience that our instructors have had with the boys in the program they realized that an entirely different set of educational experience were going to have to be steadily developed so as to capitalize on every changing student interests. Working toward student interests does not preclude teachers helping boys read, write, speak, listen, and think with as much discernment and sensitivity as possible.

A unit approach that is developed for the junior year includes: work preparation television, physics, economics, and prejudice.

A feature of the first unit (work preparation) is a boy spending school time outside of the building with a representative of an occupation of his choice. He almost literally becomes a shadow to the person for a working day and in so doing gets to feel what the job is all about.

Reading materials for our English classes include such items as Consumer Reports, Motor Trend, newspapers, and contemporary novels. We have found the magazine's tests and surveys are of considerable interest to youngsters and stimulate good reading habits as well as develop critical think patterns.

The work of the Langston Hughes is used, among other sources, as material for the unit on prejudice. He is simple enough to read and yet the boys can be touched by the sad, bitter-sweet humor of his writing and can be introduced to more such work by this material.

A follow-up on this unit is offered in the senior year by a series of small group sessions on occupational relations. These sessions were developed by an English and foreign language teacher to deal with possible sensitive inter-personal situations a young employee might face in a work environment. The two teachers spent a summer collecting hard-to-find factual materials about ethnic and racial minorities and came up with a series of guides to the presentation of modified T-sessions. A major part of the teachers' research and planning time was spent with people affected by such confrontation situations.

The senior year's English program has units based on work entrance, the film chemistry, war and peace, and leisure time activities. Basing a philosophy on the supposition that the image is more significant to the student raised in the electronic age, than the printed word, the instructor brings into the program a study of film after the junior year's work in television. For this school year the class produced a short film study on the pollution of our environment. What is interesting about this is that these are supposedly limited, non-college bound youngsters who are considered to have such limited ability.

The war and peace section capitalized on a maturing boy's broader interests. The titles of parts of this unit are: The Many Faces of War, Ideas From the Great Books, Film Shorts, Full-Length Films, Short Stories and Records, Novels, and Poetry. Sounds very academic, but what the teacher does is to explore with the boys insights into why people fight, through a simple survey of the preceding media. If this plus the directly related material is presented, as Bruner says, on a level that speaks the language to the individual it can be handled and understood.

Should you wonder about a unit on leisure time as being relevant subject for a pre-vocational program I would like to quote the following from the February/March 1969 issue of Steel Facts. "During the next five years, each employee having continuous service on January 1, 1969, in the lower half of his company's seniority list will, for the first time, be eligible for one extended vacation consisting of his regular vacation plus three extra weeks. Employees in the top half of their companies' seniority lists will, as they have been in the past, be eligible for one extended vacation of 13 weeks, including their regular vacations,



during the five-year period."

The University of Redlands in California did a study on the senior group of steelworkers who were on such an extended vacation. They found that for the most part the men did not travel, did not engage in any civic activities, nor read or go to the theatre. What they found was that most of the time was spent in sitting in the yard drinking beer. This is not an entire waste of time, but for thirteen weeks plus about three or four for the normal vacation (which is something like four months) this can be a grossly unproductive period of a person's life, both as a contributor and as an ever developing individual. It seems as if schools have to do something about education for leisure time. The unit developed by our men has sections that include community involvement as well as introductory experiences for individual enjoyment.

There is a sophomore year unit on simple psychology that combines the efforts of the English, shop, and biology teachers as well as that of one of the school psychologists. Students build mazes, buy mice, run them through under test conditions and then engage in informal, exploratory discussions on behavior conditioning. Nothing elaborate, but the unit is presented simply to the youngsters and it is very well received. We have found that they are quite interested in human behavior and have a thirst for knowledge in this area.

A problem that we are starting to face is the fact that many of the students have had a reawakening of academic stimulation because of the way that they have been treated in the program. They have been provided with opportunities to succeed in the same areas that they had previously been less than successful in. Some have expressed interest in college and must, although they can compete with many college prep students on applying the knowledge that they have acquired in high school, pay a

penalty because their classes had names that connoted industrial or practical work. However, with the opening of a community college in our county this problem now can be dealt with on a positive basis.

The program is a small one, even though it has been said that it was designed for a large population. There are a number of reasons why it is small. Like most schools in the metropolitan area we have parents and children who think that there is nothing really worthwhile except a college education. We are still battling that concept. I think that we are now in a position to grow because word of mouth has spread and we find many more people interested all of the time. Another reason that we are small in number is that because of the nature of the interdisciplinary approach there is a dual responsibility on teachers. They still belong to a parent department and yet must belong in effect to another department. Not all teachers would like that type of arrangement and we would not like all teachers to be in the program. Those that feel college prep oriented and find little satisfaction in working with our students would not fit into the plans that we have.

What we are trying to do is to look at tomorrow as best we can and to get students ready for it. We as occupational educators must consider something that Dr. Neil Sullivan, the Commissioner of Education of Massachusetts recently said, "We are in an age where we can no longer bury our mistakes in the labor market." They just won't accept them.

INDUSTRIAL PREP  
ARCHECTURE

## UNIT ON ARCHITECTURE

### I. Introduction

A. The following unit on architecture is intended to offer the industrial bound student a greater awareness, appreciation and understanding of his physical environment. This, for the urban dweller, is very largely the many and varied buildings he sees around him and which affect his life in either acknowledged or subtle ways. In all probability, the average vocational student has paid little attention to these buildings beyond a vague awareness that they are there. For this reason, his appreciation of them (or rejection) on either functional or aesthetic grounds is limited, and his historical perspective of them probably nil. The exercises in this unit are designed largely to overcome this lack of awareness, that is to get him to observe actively and consequently to do some thinking about the design, function and, to some extent, the history of these structures. The suggested discussion topics, factual material and audio-visual aids to be found throughout the unit are intended primarily to provide the student with the tools to analyse and evaluate what he sees. These tools generally take the form of basic architectural principles, and

terms for individual design elements and major design styles. To some extent, they also involve the sources for these concepts.

In this sense, the unit might be classified as a "humanities" study but not in the traditional sense of that term, which implies a strict historical or chronological approach with large amounts of lecture material of an informational or factual nature. Because of the type of student it is intended for, several basic rules have been followed in the composition of the unit. Although it is flexible enough to be altered in any way the individual teacher sees fit, it is suggested that these few principles be retained wherever possible:

1. Make the approach to all concepts inductive. Begin with visual material or the students' experience and draw all ideas from these.
2. Relate historical concepts in architecture or design styles to existing and observable structures. Don't discuss history for its own sake.
3. Avoid merely dispensing information about architecture. Proceed to more advanced or sophisticated concepts only when and if there is sufficient interest for it. In any event, avoid unnecessary depths of technical or cultural concepts. Limit the material to what is relevant to the students' experience or observations.

## II. Objectives

- A. To increase the students' awareness of the importance of architecture in affecting their environment.
- B. To increase their capacity for appreciating aesthetic values in building designs.
- C. To provide tools for analysing and evaluating building designs.
- D. To provide some perspective on the historical development of architectural concepts.
- E. In conjunction with correlated units in mathematics and science, to provide some understanding of basic architectural techniques.

## III. Materials

### A. Textbooks or References

1. Architecture: A book of projects for young adults, Forrest Wilson, Reinhold Book Corporation, 1968.
2. Architecture (Design, Engineering, Drawing.) William P. Spence, McKnight and McKnight Publishing Company, 1967
3. Graphic History of Architecture, John Mansbridge, The Viking Press, 1967.

4. American Building, The Historical Forces That Shaped It, James Marston Fitch, Houghton Mifflin, 1966.
5. The Homes of America, Ernest Pickering, Thomas Y. Crowell Company, 1951.
6. Architecture Today and Tomorrow, Cranston Jones, McGraw-Hill, 1961.

B. Audio-Visual

1. Film Strips

- a. Nature, Man and Architecture, American Institute of Architects.
- b. Architecture and Your Life, A.I.A.
- c. New York: Growth of a City, Museum Extension Service.
- d. Our Alabaster Cities, A.I.A.
- e. Cities of Europe series, Encyclopedia Britannica.
- f. Life series on cultural epochs.

2. Slides

- a. The Land and Its People series, Society for Visual Education.

3. Recordings

- a. Frank Lloyd Wright on Record, Caedmon.



## Section I - Residential Architecture

### I. Discussion

- A. Since the most immediate aspect of the student's physical environment involves residential buildings, this is believed to be an effective starting point. It is also the one in which the greatest amount of first hand observation can be brought to bear. It is hoped that these exercises in residential architecture will make the student more aware of design principles and styles and give him some basic tools with which to appreciate and evaluate what he sees in the houses around him. It might also have the practical effect of making him better able to choose a home for himself when the time comes.

### II. Procedures

- A. Lesson #1 - Introductory
  1. Through the use of any visual medium (pictures, slides, filmstrips, etc.) present the class with a broad survey of the many kinds of dwelling structures to be found around the world. These should include as many different climates, geographical and cultural areas as possible. It should also concentrate primarily on primitive or indigenous constructions. The filmstrip Nature, Man and Architecture is particularly good for this purpose.

2. Have them consider the following questions as they watch.

a. What similarities are noticeable in the basic forms of the structures? What geometric forms seem to reoccur?

b. What factors might account for these similarities?

Example: Functional values

Aesthetic value

Symbolic or religious values

Ease of construction

Nature of terrain - hilly, swampy

Climate - temperature, rain, sun, etc.

c. What factors might account for the material used in these structures?

Example: Available resources

Climate or weather

Terrain

Way of life - nomadic settled, etc.

Natural factors - floods, earthquakes, etc.

d. To what extent are any of these structures appealing visually for either form or material? Do they seem to have been built with this consideration in mind?

3. Listen to what the students have to say on these topics as the slides are shown. Make suggestions. Try to cover all points until the possibilities or interest has been exhausted.

4. Assignment

a. Tell the class that the purpose of this assignment is to get them to take a more careful and thoughtful look at the houses in their own town or neighborhood by applying similar question to them as they did to the ones shown in the previous exercise.

The questions are as follows:

- 1- What similarities of design are noticeable, particularly among the houses of a specific block or neighborhood?
- 2- Which of the houses they will look at would they consider attractive or visually appealing? For what reasons? Which ones would they consider ugly or unattractive?
- 3- In what significant ways do the newer houses differ from the older? Design? Size? Materials? What might account for these differences?
- 4- In what way, if any, does the type of house found in any given neigh-

neighborhood reflect the racial or ethnic character of that neighborhood? For example, in predominantly Italian neighborhoods there would likely be found a preponderance of brick homes, etc.

- b. Have them take written notes on their observations, including an identification of the neighborhood or particular block that they chose. The notes should include a description of any house that they found that they consider particularly attractive or the opposite. Suggest that they put themselves in the position of a prospective buyer. Would they consider buying any of the houses they see solely on the basis of its outward appearance or design?

#### B. Lesson #2 - Basic Design Principles

1. Follow up the assignment for the first lesson by discussing with the class their observations and findings. Keep the question concerning visual appeal until last since this will be the major topic of the new lesson. After the others have been discussed adequately, take up the topic of visual appeal.
  - a. Have the students describe to the class the house or houses that they found attractive or unattractive

- b. They will probably have a tendency to place too much emphasis on superficial aspects of condition (need of paint, repairs, etc.) Point out that while such things are important, they are not as important as the basic design because in most cases they can be remedied whereas the design cannot.
- c. As the students make their observations about the houses they preferred, try to develop the following outlined points starting with the suggested questions. Obviously, these will take much more than one class period if covered thoroughly. In this event, make the questions to be found into assignment questions to be discussed the following day.

2. Suggested questions and development.

- a. What three things do we see first when we look at a house?

Example: Mass - the overall geometric bulk of a structure, usually rectangular except for the roof. Our first reaction is to this.

Texture - the exterior material of a building. Wood, brick, stucco, glass, steel, etc.

Color - either the natural color of the material used or paint, etc.

- b. What is there about the mass of a building that makes it attractive if it is so?

Example: Symetry - equal distribution of parts from a center line. A design does not have to be symmetrical in order to be attractive. An overly rigid adherence to this principle can create a dull design. Have students try to give examples of symmetrical designs from their observations.

Proportion - the relation of the size of one part to the size of another. Any individual part of a design can affect the proportion of the whole. Some common examples would be the relative size of the roof, porch, doors, windows, or dormers.

Contrast - the variation of the mass of a structure or its material. Point out that the mass of a structure can be varied in a number of ways.

Example: The addition of a wing or ell, dormers, porches, etc.

It is seldom a good idea to mix geometric shapes for contrast, however.

Example: Triangles with circles or semi-circles.

The most common contrast of materials is brick and wood. Ask for examples of this and other mixtures.

Unity - a sense of the mass and its details belonging together. No two parts should conflict.

Example: Two large gables on the same elevation might be called conflict, rather than complement each other.

Example: Club of scale dormers too large or small for size of roof or overall house.

Example: Conflicting geometric masses of any kind.

Roof Style (Note: the roof style of a house is not a parallel point here. However, it is such a dominant feature in most house designs that it would be well to make a special point of it when considering any of the four above



characteristics of mass.)

Ask the students to describe or draw a rough sketch of any roof style they have seen. In most cases this will be a plain Gable roof since this is the most commonly found style. Ask them why they think this style is so popular.

Example: Economical

Easy to construct

Good drainage

Adaptable to many styles

Ask for descriptions of some other roof styles. On what style houses are they found? What is their visual appeal? What might be the practical advantages of each. Other than the Gable style discussed above, the most commonly found roof styles follow, roughly in order of their prevalence and with suggestions for development.

Hip - very popular in many contemporary styles such as ranch and split-level. Similar advantages to Gable.

Gambrel - most commonly found in Dutch Colonial style houses.

Similar advantages to Gable and

Hip. Usually very attractive. Frequently designed to overhang lower houses, giving very nice effect.

Flat or Shed - usually found in contemporary designs. Least costly for material and labor, but needs special care for leaks since rain and snow can collect more easily. Weight from snow can be a danger.

Shed style has pitch, unlike Flat.

Butterfly - contemporary and inexpensive. Also needs care for leakage as water collects in center.

Mansard - traditional continental style found in French Provincial and some Victorian styles. Drainage can be a problem.

Monitor - becoming popular in many contemporary designs. Fairly simple and admits light.

c. In what way can the texture of a building's exterior affect our reaction to it?

Example: Glass or aluminum panels generally create a cold effect or feeling.

Example: Brick, stone, or wood are usually warmer.

Example: A mixing of textures can create variety and interest.

- d. In what way can the color of a building affect your reaction to it?

Example: Warm and cold colors, etc.

- e. In what ways can the setting or location of a house affect your reaction to it?

Example: Is it harmonious with the other houses in the neighborhood in size, style, etc.?

Is it harmonious with its setting and lot? Wooded or hilly area, urban, near water, etc. Ask for examples of homes they have seen that seem well suited to their location or setting.

### 3. Assignments

- a. The following assignments are suggested as good follow-up exercises for the preceding lesson.

1. Take a walk around any neighborhood. Find a house that appeals to you on the basis of its design and another that you don't like for the same reason. Write a description of the houses which includes the following features:

- Its mass design as closely as you are able to describe it. Consider its basic geometric shape, height in relation to width, roof style, and any other elements you consider important.
- The number, size, positioning and style of any features within the mass that influence it significantly. Windows, doors, dormers, porch, vestibule, etc.
- The type of texture or material used.
- The colors used.

Second, add at the end of your factual description, a statement of your reasons for liking or disliking the house. Relate your evaluation to essential elements of symmetry, unity, proportion, contrast, etc.

2. Complete the same directions as given in #1, with one important exception. Rather than writing a factual description of the house, draw a sketch of it. Add your evaluation as indicated.
3. Look in books or magazines for photographs of houses that appeal to you. Take two of them and, on an attached sheet, make a list of their outstanding features as in #1.

4. As above, find photographs of houses that might serve as examples of the following design principles or absence of them: symmetry, proportion, contrast, unity. On an attached sheet, describe how these houses either follow or violate these principles. Explain also whether the design is successful or not in either case.

C. Lesson #3 - Common Home Designs

1. Utilize the results of the assignment from the previous lesson for further discussion of the evaluation of design. Reinforce the students' use and understanding of the terms for these ideas by insisting on their use in the discussion.
  - a. Students present written assignments to the class.
  - b. Copy sketches on the board or make transparencies of them.
  - c. Show the magazine photographs on the overhead projector, etc.
  - d. Encourage questions and criticism from the class as each student makes his presentation. Point out anything he may have overlooked. Correct any misconceptions. Identify (provide terms) for any ideas not covered in previous lessons.

2. As the various visual material is viewed, point out, or have the class point out, similarities of overall style that may be seen in these houses. Ask whether they remember seeing other examples of these recurring style and if they know the names for them.
3. Identify some of these styles by name and point out their salient style features.
4. The following material should be covered only if there is sufficient interest shown by the students in pursuing their study of home designs further. There is a good chance they will have been motivated by the preceding lessons to learn the terms and identifying characteristics of some of the more prevalent, recognizable styles used in American residential architecture through the years.

For the convenience of the teacher, the following list of some commonly found home designs and some historically significant ones has been included, along with a history of the characteristics of each.

The visual material for this lesson can easily be found in the reference sources listed under materials for this unit.

As you go through the pictures of these houses, have the class point out the features they notice including the material used.

Saltbox or Lean-To (Early 17th Century New England)

1. Made from available material, chiefly timber.
2. Simple rectangular design with chimney in center.
3. Steeply pitched gable roof.
4. Hewn oak posts and beams with pegged joints.
5. Clapboard siding.
6. Small windows with little consideration for appearance or placement.

Elizabethan or Half-Timbered (Has remained a popular design into the present day. Often mistakenly called Tudor.)

1. Exposed timber frame with stucco or brick filling between the timbers.
2. Asymmetrical, informal, often rambling mass design.
3. Prominent gables in roof.
4. Tall, narrow casement windows with small leaded panes.
5. Second storey frequently overhangs (cantilevered) first.



### Scuthern Colonial

1. Rectangular with small projecting porch.
2. One and one-half storeys.
3. Steeply-pitched gable roof often with dormers.
4. Both brick and wood used (southern soil good for brickmaking).
5. Small casement windows frequently diamond shaped leaded panes.

### Georgian (Early 1700's)

1. Very formal style
  - a. Rectangular, with windows in perfect symetry. Front entrance is exact center.
2. Roman pediment (triangle) over door with pilasters at sides.
3. Hipped or gambrel roof but some with gable also. Lower pitch than most Colonial styles.
4. Dormers of many shapes used.
5. Later examples much more elaborate. Variety often mistakenly called "Southern Colonial." had portico to second floor with columns. Some had columned portico around three sides.

### Dutch or Flemish Colonial (18th Century)

1. Large gambrel roof with overhang is dominant feature. In some cases, overhang is large enough to cover porch.
2. Second floor dormers.

### Cape Cod Colonial

1. Steep, low-slung gable roof.
2. Eave lines just above first floor windows give dominant low appearance.
3. Some dormers found but not characteristic.
4. Double-hung windows.

### Federal (Post Revolution)

1. Basic rectangle of two stories.
2. Symmetrical like Georgian but more delicate detail.
3. Low pitched hipped or gable roof.
4. Balustrade on roof common. Also monitor styled roof used.
5. Fan-shaped transom window common over front door.

### Greek Revival (Early 1830's)

1. Massive design with large, plain surfaces: divided into panels by large mouldings.
2. Large columns supporting a portico in imitation of Greek temples.
3. Full length French windows with large glass panels.
4. Low-slung hipped roof.
5. Size makes it unsuitable for modest home design - not popular for long.

Victorian (1859 and on)

1. Large, confused and heavily ornamented mass.
2. Little attention to proportion, balance or unity.
3. Heavy, fancy trimming (carving, etc.) called "gingerbread."

Bungalow (1900 - 1920)

1. A reaction to excesses of Victorian design
  - a. All decorative elements eliminated.
  - b. Structural elements visible and simple.
2. One storey with roofed porch extending across front.
3. Long and narrow with narrow side as the front.
4. Gable roof universally used.
5. Unattractive generally, but its cheapness, etc. makes it popular. Thousands built.

Midwest Ranch (1940's and on to present day)

1. Low, spread-out one-storey structure with L or U shape.
2. Low-slung hipped roof.
3. Frame or brick.
4. Garage an integral part of design often.
5. Popular present day construction, especially in "split-level" varieties.

### Contemporary

1. Completely functional design is main objective.
  2. Generally unpretentious.
    - a. Natural, bare material allowed to express own color and texture.
    - b. Exposed ceiling beams frequent.
  3. Open, flexible interior.
  4. Much glass space in exterior wall.
  5. House and lab treated as one unit in design.
5. Assignments or follow-up exercises.
1. Any of the assignments from Lesson 2 may be re-used for this lesson. In this case, however, they will be looking for, identifying and evaluating specific design styles.
  2. Have them choose anyone of the above styles that particularly appeals to them. Have them find a number of pictures or actual examples of this style which show variations of one kind or another. They are to explain how the details of the design vary while still retaining the same essential features.  
  
Or they may explain how contemporary versions of this design have modified the original or "classical" one.
  3. Have them look in the real estate section of any Sunday paper for ads describing

a particular kind of house design that they've studied.

4. Take the class on a walking tour of any older middle or upper class neighborhood. Point out, or have them point out examples of the various design styles you've studied.

INDUSTRIAL PREP  
BIOLOGY

## BIOLOGY AND DUCT WORK

### INTRODUCTION

#### Project I

The word duct by definition is any tube, canal, or vessel by which a fluid or other substance is conveyed. With this definition in mind, a most obvious correlation with biology would be with the circulatory system of man. This system is the most unique, best defined and most efficient system that can be found in any animal. When discussing this duct work of man one must always consider the definition for it will direct teaching plans. Work must be done that will include the various vessels or conveyors, describe the fluid in these vessels, and discuss the substances that are carried by this fluid. By covering all of these areas, an attempt is made to instill in the students the concept that the circulatory system is in all actuality a series of duct work carrying vitally needed materials through the body so that it may function at its full potential.

From this general concept, the instructor can develop more specific ideas when he relates the role valves play in the circulatory system, such as the ones present in the heart and veins, compared to the valves used in duct work. It would be easy for example, to relate the one way valves in the circulatory system and those used in duct work.

When considering duct work, one finds there is another basic concept that can apply to both areas. For example, air being forced through a system of ducts which will finally lead to a vent to be blown into a room. At this point, the duct work becomes wide so that the air flows out gently because of a greater cross sectional area. If it

Project I (cont.)

were narrower than the original duct, the air would come out with a greater force because there is an increase in the velocity of air with the narrowing of the duct.

With the circulatory system, blood is flowing through an artery at a certain velocity and when it reaches the capillaries, one might expect the velocity of blood to increase. However, more like the mechanical duct work, it flows more slowly through the capillaries because there is a greater cross sectional area involved. It is important that the blood flows at a slow rate so that the exchanges the blood must make can take place.

This is an interesting base from which to relate the biology of man to the duct conveyors built by man.



## BIOLOGY AND MEASUREMENT

The following worksheets have been designed so that the students can develop experiences in measuring in the science laboratories. In so doing, they will acquire an appreciation of the scientific apparatus and the skills needed to use the equipment properly and accurately. The exercises in the laboratory work will develop an awareness of the importance of reading and following directions. This concept is vital if we are to encourage the scientific method of thinking and problem solving.

These exercises will be organized to provide experiences in group action and cooperative effort; another concept as important in our society today.

## PRACTICES IN SCIENTIFIC MEASUREMENT

### THE METRIC SYSTEM

#### I. Objectives

- A. Introduce students to measuring devices.
- B. Develop accuracy and responsibility of reporting.
- C. Have students use bar graphs to make comparisons.

#### II. Presentation

- A. This is an exercise involving the measuring of heights of students. They should be given time outside of class to refine and make presentable all information that was accumulated from their work. If possible, have students work in groups of three and assign each group a number. Organize groups according to ability and personality types and mix groups as best as possible so that the youngsters experience heterogenous situations. While students are measuring each other's heights, general supervision is needed to check their techniques and accuracy.
- B. Have students record their data on the chalkboard.

Example - Group I - Bill - 145 cm.  
  Frank - 152 cm.  
  Bob - 158 cm.

- C. Group data in five centimeter intervals, starting from the smallest figure to the largest. The following table will be helpful:

<u>5 cm. intervals</u>	<u>No. of people</u>
145 - 149	1
150 - 154	2
155 - 159	3

- D. Present students with an example of a bar graph.
- E. The same procedure will be used for measuring textbook pages. Textbooks to be used should be all the same and pages that are measured to be chosen at random.

## Measurement Worksheet

Part I      Purpose: To obtain a basic understanding and workable knowledge of the metric system.

Part II      Materials needed:

1. Meter stick
2. Meter rule
3. Textbooks

Part III      Procedure: Read the following directions carefully:

1. Work in groups of three.
2. Make sure you collect all information.
3. Measure the height of each member of your group. You may do so by having a member of group lean against board and mark off his height.
4. Record group data on chalkboard with your group number and first name.
5. When all heights are recorded, copy them down on a separate sheet of paper in order of increasing size. Check all information.
6. Group the numbers in five centimeter intervals and indicate the number of people that fall in that range. Start from the smallest and proceed to the largest. Construct a table to show this.
7. From the table constructed, prepare a bar graph showing distribution of heights in class.
8. Now use a metric rule and measure length of one page from your textbook.
9. Measure to nearest millimeter.
10. Put your individual findings on chalkboard and when all figures are on board, copy on separate sheet of paper for your own use.
11. Prepare a bar graph of these measurements also.

Part IV      Answer all questions:

1. Which heights appear most frequently \_\_\_\_\_.
2. Which heights appear less frequently \_\_\_\_\_.

Part IV (cont.)

3. What advantage results from making a bar graph \_\_\_\_\_.
4. What difference in height would you expect if you were measured without shoes on \_\_\_\_\_.
5. Do all measurements of book pages agree \_\_\_\_\_.
6. Is the variation of the book pages, if any, as great as the variation in the heights of the members of the class \_\_\_\_\_.
7. How can you explain whatever variation there is in the book pages, if any \_\_\_\_\_  
\_\_\_\_\_.

## Measurement Worksheet

**Part I**            Purpose: Learn to use the metric system for making measurements of very small objects with the aid of a microscope, and to develop skills of proper microscope technique.

**Part II**            Materials needed:

1. Compound microscopes
2. Meter sticks
3. Plastic rulers with millimeters
4. Slide and cover glasses
5. Preserved slides for estimating diameters such as the amoeba, paramecium, or euglena, or anything that is suitable to the worksheet.

**Part III**            Procedure: Read the following directions carefully and answer all questions:

1. Examine meter stick and determine the number of inches in one meter \_\_\_\_\_.
2. The meter stick is divided into how many centimeters \_\_\_\_\_.
3. How many millimeters are in a meter \_\_\_\_\_.
4. How many centimeter make up one inch \_\_\_\_\_.
5. How many millimeters make up one centimeter \_\_\_\_\_.
6. Record the length of the desk in meters, centimeters, and millimeters \_\_\_\_\_.
7. The microscope is a very valuable tool designed to magnify many small objects so they can be studied and examined. The microscope will reveal much that the naked eye cannot see. In revealing these specimens, very seldom is there any concept of their size. The following questions will provide the opportunity to estimate and calculate the size of the object being observed. When working with such small objects, it is necessary to include still another part of the metric system and this is the micron which is the one millionth part of a meter. The following chart will help you.

Part III Procedure (cont.)

1 meter (m)	=	1000 millimeters (mm)
1 meter (m)	=	1,000,000 microns (/u)
1000 millimeters (mm)	=	1,000,000 microns (/u)
1 millimeter (mm)	=	1000 microns (/u)

With the above chart as a reference, proceed with the estimating and calculating of objects observed.

8. A convenient method of approximating the size of an object is to determine the diameter of your microscopic field. To measure the field diameter of the low power objective, place a clear plastic millimeter ruler under the objective with its edge across the center of the field. Measure and record the diameter in millimeters and then convert to microns.
9. To measure the diameter of the high power field may prove to be more difficult, therefore calculate it by the information that is available. If the high power objective magnifies 40 times and the low power objective magnifies 10 times, then the ratio is 4:1 and the high power is  $\frac{1}{4}$  that of the low power field. If the low power field has a diameter of 1600 microns, then the high power has a diameter of 400 microns. For your own microscope, state the ratio between the low power objective and high power objective and calculate the diameter of the high power field in microns.
10. Once the diameters of the field have been calculated, you can now estimate the size of an object. For example, if an object half-way across the low power field and the field is 1600/u then the object is approximately 800/u wide. Once the field diameters are known, use it for all objects observed.
11. Draw and label three objects given or chosen to a scale of 1 millimeter or 1000 microns to one inch. (Dependent on number 5 of Materials Needed, Part II).

Part IV Briefly write the conclusions made based on observations and questions answered.

## THE CIRCULATORY SYSTEM

### I. Objectives

- A. To make students aware of what the circulatory system is composed of.
- B. To give students an understanding of the composition of blood such as the "solid" and the "liquid" portions of it and their functions.
- C. The structure of the blood vessels and the different types that are involved plus their functions will be given.
- D. Give a basic understanding of what is meant by blood pressure.
- E. To introduce the students to the structure of the heart.
- F. The importance and necessity of blood typing.
- G. To expose students to the many advancements made in science related to the circulatory system.

### II. Presentation

- A. The first objective is introduced by stimulating enough interest in the thought that our circulatory system can be related to a very primitive animal, namely, the sponge. In the final outcome of the discussion, these points should be strengthened:
  1. Sponge pumps in sea water so:
    - a. cells can be nourished.
    - b. wastes are carried away.
  2. Humans also have:
    - a. cells bathed in a fluid which has a salt content somewhat like sea water.
    - b. blood also carries away waste products and it brings nourishment to the cells.
  3. Man is much more complex because:
    - a. in essence, he manufactures his own sea water.
    - b. plus adds many more vital substances.

### Presentation (cont.)

- B. For objective two, a lesson is initiated by having students examine a drop of their own blood. (Parental consent may be necessary). Study a drop of blood in Ringer's solution or even a dried blood smear. From this jumping off point, it would be well to cover the structures and functions of the "solid" and "liquid" portions of blood through classroom discussion.
- C. Objective three is introduced with a small demonstration by the teacher which later will be done by students working in small groups. This demonstration will require the use of goldfish which probably can be acquired from any pet store. The teacher will be trying to show circulation in the capillaries, arteries, and veins in the almost transparent tail of the small goldfish. Wrap the body of the goldfish in wet absorbent cotton so that only his tail is exposed. Place it in a Petri dish with a small amount of water. Cover the tail with a glass slide to hold it flat and expanded. Examine under high and low power. The fish can also be anesthetized with chloroform or urethane; however, circulation becomes sluggish. The students should be able to distinguish which vessels possess the spurting and rapidly moving blood from the vessels with the slower moving



Presentation (cont.)

- C. blood. They should also be able to see the fine connecting vessels. Work sheet will give specific directions.
- D. The next objective (four) can follow very nicely from the previous procedure discussing blood vessels. The objective here will be to give students a basic understanding of what is meant by blood pressure. An excellent motivating device is the sphygmomanometer. This lesson should be prefaced by a slight introduction in relation to the instrument used, how it is used, and what is actually being measured. This would involve a definition of the words diastolic and systolic. These terms are represented by numbers in the form of  $\frac{120}{80}$  which represents the "normal." These numbers probably have very little meaning to the student. Through calculations, these figures, the 120 or systolic reading indicates that there is about 2.31 pounds per square inch of pressure in the arteries and 90 or the diastolic reading indicates about .57 pounds per square inch of pressure. The students gain practice in the use of these figures by working with a manometer. The students can blow into an open end of the U tube trying to raise the column of mercury 12 centimeters. This is not a quantitative measure but an experience of the pressures that is being expected on the arterial walls.

### Presentation (cont.)

- E. To bring in the next objective, start the class by having students taking each other's pulse. Develop the idea that the beating heart pumps blood through the body by way of blood vessels. To point out that the heart will pump harder to meet the demands of the body, have someone exercise and then take his pulse to show the difference between the "normal" and heightened pulse rate. With this motivation, a classroom discussion of the structure and function of the heart should follow to strengthen the learning experience.
- An alternate plan can be used by obtaining a fresh or preserved specimen of a heart for dissection in class. Elicit the use of each chamber of the heart and the valves. Develop a discussion, with diagrams, of a closed circulatory system from the heart and back again. Follow with a development of materials that lost and gained with one trip around the body.
- F. For students to obtain a basic understanding why the typing of blood is necessary for blood transfusion is to let students type their own blood. The instructor should first demonstrate the technique that is to be used and students should know all the steps that are involved before proceeding. Blood typing kits are available from

Presentation (cont.)

- F. some of the biological supply houses and in these kits you will find all the materials needed. A useful follow-up exercise can include the reporting on the distribution of types A, B, AB, and O in the total population.
- G. To expose students to the many advancements in science, a permanent notebook should be kept which will be collect periodically on articles or clippings in the various written media. Reports on famous men, such as Harvey, might give students a better appreciation of the work done for the betterment of the world.

## SUGGESTED WORK OUTLINE

### Circulation Unit #1

#### Vocabulary

The key for obtaining success in any area of study is a basic understanding of terminology.

To have students lock up the definitions and memorize them is a cursory learning activity. However, to make the words more meaningful the students should be given a logical and systematic route to follow which will give them a working knowledge of all words they may encounter in all content areas.

The systematic approach for this biology unit will be to spend at least five minutes during class time to analyze and break down five words into their basic roots or keys, so that the students may obtain a better understanding of the terms that will be used when discussing the circulatory system. To show the correlation of words, one can point out the root (peri) used in mathematics in perimeter and used in biology in periodontal. This technique, however, is not always specifically possible, but should be used when possible.

After the analyzed words have been broken down and discussed, a home assignment should be given to reinforce the material given that particular day.

The results will enable students to see the logical relationships between words in biology and the correlation between subject areas.

<u>Keys to various terms to be used</u>	<u>Meanings</u>	<u>Examples of Words</u>
1. Art	Any branching of	article, artillery arthritis, artistic arteriosclerosis
2. Circa	To go around	circumference circulation circumnavigate
3. Com	With, together agreement	compatible combine, communicate complimentary compliment
4. Peri	Around, about	periscope perimeter pericardium
5. Cardiac	Of or near the heart	cardiac cardiograph
6. Pulmo (L.)	Of the lungs	pulmonary
7. Vena (L.)		ventricle venule vena cava
8. Cava (L.)	Hollow	vena cava cavity

Suggested Vocabulary List

1. Anemia
2. Antigen
3. Antibody
4. Aorta
5. Arteriole
6. Artery
7. Auricles
8. Capillary
9. Circulation
10. Coronary
11. Compatible
12. Diastole
13. Hemoglobin
14. Hemorrhage
15. Incompatible
16. Oxygenated
17. Leukemia
18. Pericardium
19. Plasma
20. Platelets
21. Pulmonary Circulation
22. Pulse
23. Red corpuscles
24. R H Factor
25. Septum
26. Systole
27. Vein
28. Vena Cava
29. Venule
30. Ventricle
31. White corpuscle

## Circulation Unit #2

Part I Purpose: To see and attain a knowledge of the function of the various blood vessels, and to use previous knowledge gained in measurement.

Part II Materials needed for small group work:

1. Goldfish
2. Half of a Petri Dish
3. Two wads of absorbent cotton, 1 thin and 1 thick
4. Two microscope slides
5. Medicine dropper
6. Compound microscope or stereoscopic dissecting microscope
7. Millimeter ruler

Part III Procedure:

1. Soak thin wad of cotton, place on bottom of petri dish. Place one glass slide also.
2. Soak thick wad in preparation for next step.
3. Remove fish from aquarium. Place head and body on moist cotton and tail on slide.
4. Place thick wad of cotton on body of fish and the other glass slide on top of tail to give sandwich effect.
5. Replace glass slides if removed by the activity of the fish.
6. With medicine dropper, keep cotton moist.
7. Put entire set-up on stage of microscope and bring into focus.
8. Focus in the capillaries and flowing blood. The capillaries are the smallest in diameter of the blood vessels you can see.

Part IV Observations and questions to be answered by students:

1. Look for a small arteriole at a point where it divides. The two forks of this division are the capillaries. Measure the diameter of the arteriole and record.

Part IV (cont.)

2. Measure the diameter of the capillaries and record each of them.
3. Is the diameter of the arteriole greater or less than the sum total of each of the capillaries?
4. Of the two blood vessels, which one possesses the greatest amount of surface area for the volume of blood flowing through it?
5. Of the two blood vessels involved, which of them has the greatest cross-sectional area?
6. From your observations and measurements, would you expect the blood to flow more rapidly in the capillaries than the arterioles? Please explain your answer thoroughly.
7. Objects which are passing through the capillaries are red blood cells; describe their shape.
8. Through your observation, how must these red blood cells pass through the capillaries?
9. This passage of red blood cells through the capillaries either is a disadvantage or an advantage to the animal. Choose one and explain your choice.
10. Follow the flow of blood until you reach a slightly larger vessel or venule. Record the length of a capillary.
11. Is the blood moving faster or slower as it moves into the larger venule?
12. Measure the diameter of the venule. Is it greater or less than the diameter of the arteriole?
13. Why is advantageous to have thin-walled capillaries?
14. Would you expect much exchange between the red blood cells and body cells in arteries and veins?

Part V Write conclusion based on observations made and questions answered.



## BIOLOGY AND DENSITY OF MATERIALS

### Project III

Although biology is not directly related to this unit on density of materials, there remains an area of work in the laboratory that can be considered as a valuable contribution to this project. By exposing students to the use of the triple beam balance and practices in applying mathematical theorems to scientific analysis, the biology class may offer understanding of the goals of the project.

## COMPARISON OF MATERIALS

### Suggestions To The Teacher

1. A format should be set up by the teacher for materials that are to be handed in. It is suggested that drawings be submitted with this worksheet.
2. If possible, work in pairs.
3. Each student should be given one object to work with. The objects may be aluminum, brass or steel of varying sizes and shapes. These materials should be prepared by the instructor ahead of time.
4. Check accuracy of scales prior to student's use.
5. Students should be given the weight of aluminum, brass, and steel per cubic foot per pound.

<u>Material</u>	<u>Pounds per cubic ft.</u>	<u>Grams per cubic ft.</u>
Aluminum	168	44.2
Brass	529	139.1
Steel	490	128.8

6. Students must calculate the number of grams per cubic inch of these materials.

Example:             Aluminum             168  
   454  
     
   76,272 grams per cubic foot.

   1728   442             grams per cubic  
  76272             inch.

7. Important Facts:

28.4 grams = 1 ounce  
454 grams = 1 pound       (16 x 28.4)  
1728 cubic inches = 1 cubic foot (12 x 12 x 12)

8. Students must be able to calculate the number of cubic inches of their particular object.

9. The following example will be helpful to compute the weight of student's assignments. Example:

A. Number of cubic inches of object (aluminum) is   .43 .  
B. The grams per cubic inch of aluminum is         44.2 .  
C. Computed weight of object is .43 x 44.2 or       19.006 .  
  grams

## DENSITY OF MATERIALS

Part I            Purpose: To determine the weights of certain metals allowing for a small margin of error and to make the necessary conversions.

Part II           Materials needed:

1. Triple beam balance
2. Four ounce weights
3. Metals (aluminum, brass, steel) of varying sizes and shapes.

Part III           Procedure: Read the following directions carefully:

1. Derive the number of grams in one ounce. Then calculate the number of grams in one pound. Use four ounce weights given to you.
2. Calculate the number of cubic inches in one cubic foot.
3. From the information gathered and given, calculate the number of grams per cubic inch of the materials - aluminum, brass, and steel.
4. Proceed to find the number of cubic inches of the object given.
5. When the number of grams per cubic inch of each of the materials and the number of cubic inches of the object given have been calculated, compute the weight of the particular object with the accumulated information.
6. Check the computations by weighing the object on the scales. Convert the answer to the English system.

Part IV           Answer all questions:

1. Number of grams in one ounce. \_\_\_\_\_
2. Number of grams in one pound. \_\_\_\_\_
3. Number of cubic inches in a cubic foot. \_\_\_\_\_
4. Number of grams per cubic inch of each material:

- A. Aluminum
- B. Brass
- C. Steel

Part IV (cont.)

5. Cubic inches of the object given. \_\_\_\_\_
6. Computed weight of the object. \_\_\_\_\_
7. Scale weight of the object. \_\_\_\_\_
8. Convert the answer to the English system. \_\_\_\_\_
9. If any error, how can it be accounted for?

## BIOLOGY AND PSYCHOLOGY OF HUMAN BEHAVIOR

### INTRODUCTION

#### Part V

Behavior is a way in which an organism, organ, or substance acts when stimulated. In this project three basic behavior patterns will be explored. They are instinct, conditioned reaction, and intelligent behavior.

The instinct pattern of behavior controls much of the activity of higher animals. This is a form of behavior which is involuntary and does not require any judgments to be made based on past experience.

An example of this instinct is self-preservation, which is basic in all vertebrates as well as in many of the non-vertebrates. An animal will react by instinct to many of the dangers it faces throughout its lifetime.

A conditioned reaction is another form of behavior common among vertebrates. Many animals can be subjected to various stimuli so that the response yields a particular behavior pattern. For instance, a dog can be conditioned to sit when given a hand signal or a fish can be conditioned to come to a specific corner of a fish tank when being fed.

This type of behavior is a higher form than that of instinct. In a conditioned reaction behavior pattern, animals can learn through the formation of habits by conditioning; however, these animals still lack many of the facilities man possesses for learning. This fundamental concept can be presented through this general project.

Project V (cont.)

The last form of behavior is intelligent behavior. It is much more complex than instinct or conditioned reaction because it requires memory of past experiences and judgments to be made to a variety of situations.

To a degree some animals exhibit intelligent behavior but they do not possess the ability to profit by experience and, therefore, cannot apply their learning to the solutions of their problems.

This project will initiate learning experiences which will enable the instructor to show the relationship of conditioning in the human world and the lower vertebrate world.

SUPPLEMENTARY LESSON FOR PROJECT V - I

Part I      Objective: Develop a fundamental understanding of the meaning of instinct.

Part II      Materials needed:

1. List of films available showing instinctive behavior.

A. Dance of the Bees - Wilner Films & Slides  
P.O. Box 231  
Cathedral Station, NY 25

B. Bee City - Almanac Films Inc.  
516 - Fifth Avenue  
New York 18, New York

C. Behavior in Animals and Plants  
Coronet Films  
Coronet Bldg.  
Chicago 1, Ill.

Part III      Presentation:

1. It is suggested that one of the above films be shown so that students can obtain a basic idea concerning the meaning of instincts.
2. The film presented should be reinforced with a classroom discussion pointing out its highlights. After discussing the film, the instructor should have the students describe instincts in other animals, such as birds building a nest, behavior in an ant colony, migration of some fish and birds, spinning of a spider's web and many others.
3. Draw a comparison between the problem solving behavior in man with those behavior problems discussed about the various animals.

## SUPPLEMENTARY LESSON FOR PROJECT V - II

Part I            Objective: Introduce students to a higher form of behavior known as a conditioned reflex.

Part II           Materials needed:

1. Plate of glass
2. Cotton balls
3. Several small hand mirrors

Part III          Presentation:

1. Have students name some activities that their bodies perform unconsciously. (reflexes). List some of them on the chalkboard and from them develop a sound definition of a reflex.
2. To demonstrate a reflex ask one of the students to hold a piece of plate glass in front of their eyes and throw cotton balls at glass, hopefully the student will react by blinking, which will demonstrate a reflex.
3. To demonstrate another reflex ask students to cover one eye for a minute or two. When they remove the hand, have them look into the small hand mirror at once. Explain that the pupil of the eye dilates to permit more light to enter and when the hand is removed, the pupil will contract because of the brighter light exposed to it after their hand was removed. This may have to be done several times.
4. To point out an involuntary reflex, have a student sit on a chair or a table with legs crossed. When the student is relaxed, strike a blow just below the patella with the side of the hand or, if available, a rubber hammer.
5. Explain the path a reflex takes.



## EXPERIMENT FOR PROJECT V

Part I            Objective: To influence the behavior of a mouse by conditioning it to certain factors which will result in habit formation.

Part II           Materials needed:

1. Maze
2. Mouse
3. Food

Part III          Presentation:

1. It may require several days to condition a mouse.
2. The instructor should attempt to condition the mouse to two factors; one of which is color and the other is shapes. The colors and shapes that are to be used are arbitrary and should be selected by the instructor.
3. Only a hungry animal should be used during the conditioning period. When the mouse is successful in running the maze, it should be rewarded with food. It is important that the mouse not be overfed at this time.
4. Keep accurate records from day to day or several times a day on the number of trials needed to learn the maze and the time required to run the maze successfully.
5. The mouse should be permitted to learn the maze before the actual conditioning begins.
6. Divide the reward chamber into three equal divisions. Construct a door for each division and give each door a different color. Select one of the closed doors to put the reward behind. The mouse, once released, will seek out the reward chamber for the food and, hopefully, by a process of trial and error he will find the food. This will be the beginning of the conditioning.
7. Once the animal can run the maze successfully and associates color with the food, change the position of the doors, keeping the reward behind the same colored door. Watch the reaction of the animal carefully.

Presentation (cont.)

8. Assuming the animal is conditioned to the color, start a series of runs in which the animal does not receive a reward behind that particular door. Determine if the habits formed by the mouse are forgotten.
9. The same procedure can be used for various shapes, such as a triangle, square, or circle. Behind one of these shapes a reward can be placed just as it was done with the colored doors. Comparison can be made with the first conditioning process.

### MATERIALS NEEDED FOR CONSTRUCTION

- A. One wooden box, fitted with a framed hardware cloth top and a perforated hardboard bottom, 5 inches high x 24 inches wide x 30 inches long. Top frame material  $1\frac{1}{16}$  inches thick x  $1\frac{1}{2}$  inches wide.
- B. One piece perforated hardboard,  $\frac{1}{8}$  inch thick x  $23\frac{3}{8}$  inches wide x  $29\frac{3}{8}$  inches long for the bottom.
- C. One piece hardware cloth,  $\frac{1}{2}$  inch mesh x 24 inches wide by 30 inches long for top frame.
- D. One wooden door slide  $\frac{3}{8}$  inch thick x  $\frac{3}{4}$  inch wide x  $4\frac{1}{2}$  inches long, bottom.
- E. Two wooden door slides,  $\frac{3}{8}$  inch thick x  $\frac{3}{4}$  inch wide x 4 inches long sides.
- F. Fifty wooden separator posts,  $\frac{3}{4}$  inch square x  $3\frac{1}{2}$  inches long. Long pieces should be used and cut to length after grooving.
- G. 52 hardboard separators,  $\frac{1}{8}$  inch thick x  $3\frac{1}{2}$  inches wide by lengths as follows:
- |                                |                              |
|--------------------------------|------------------------------|
| 1. 1 - $17\frac{1}{2}$ " long  | 5. 2 - $4\frac{1}{2}$ " long |
| 2. 72 - $13\frac{1}{2}$ " long | 6. 6 - $3\frac{1}{2}$ " long |
| 3. 1 - $6\frac{1}{2}$ " long   | 7. 4 - $2\frac{1}{2}$ " long |
| 4. 8 - $5\frac{1}{2}$ " long   | 8. 8 - $1\frac{1}{2}$ " long |
- H. One hardboard door,  $\frac{1}{8}$  inch thick x  $3\frac{1}{2}$  inches wide x  $3\frac{3}{4}$  inches high.
- I. Fifty-eight wood screws, No. 6 x  $\frac{3}{4}$  inch long, flathead.
- J. Eight wood screws, No. 10 x  $1\frac{1}{2}$  inches long, flathead.
- K. Four hooks and eyes, two inches long.

### PROCEDURE -- STUDENTS SHOULD CONSTRUCT MAZE

1. Make parts for maze box frame using rabbit joint construction. Cut a groove  $\frac{1}{2}$  inches from the bottom on all box frame pieces to hold perforated hardboard base. Bore a 2 inch diameter hole in center of front piece. Assemble box and fasten with wood screws.
2. Prepare to frame material for lap joint assembly. Fasten top frame members together with wood screws.
3. Cut  $\frac{3}{16}$  inch x  $\frac{3}{16}$  inch grooves lengthwise along the center of all four sides of the  $\frac{3}{4}$  inch square stock for posts.
4. Saw grooved stock into fifty separator holders, each  $3\frac{1}{2}$  inches long.
5. Drill a  $\frac{3}{32}$  inch pilot hole in the center of one end of each separator holder.
6. Fasten separator holders in desired pattern locations on the perforated hardboard base by inserting a flat-head wood screw upward through perforation to secure holders.
7. Cut hardboard separators to size and insert them in proper grooves to form maze patterns.
8. Cut three pieces for holding sliding door using meter joint construction and a rabbit cut on the inside to receive door. Fasten in place around the 2 inch diameter opening with nine nails.
9. Make up hardboard sliding door and install.
10. Fasten hardware slot to underside of top frame section using staples and then fasten in place on base frame with hooks and eyes on each side.

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"Research Project Ideas for Industrial Arts", Bureau of Industrial Arts Education, Division of Industrial Education, The State Education Department, The University of the State of New York, Albany, New York.

SUGGESTED FILMS FOR SOPHOMORE PROJECTS AND THEME

Circulation - (Ducts)

1. Here The Magnificent 59 Min. - Free - \$195

Association Films

Broad & Elm  
Ridgefield, N.J. 07657

or

Association Films  
1621 Dragon Street  
Dallas, Texas 75207

2. Circulation: Why and How 10 Min. - \$3.00 - 01665

Churchill Films  
Catalog of Ed. Films  
University of Illinois

3. Circulation - Free

American Heart Association  
Local or State Chapter

Measurement

1. Measuring Techniques - 14 Min. - \$8.00

New York University  
Film Library

2. Measuring & Testing Things - 14 Min. - \$4.75 - 60085

A. C. I. Productions  
Catalog of Ed. Films  
University of Illinois

3. Story of Weights & Measures - 10 Min. - \$2.35 - 00178

Coronet Films  
Catalog of Ed. Films  
University of Illinois

4. Microscope and Its Use - 10 Min. \$2.35 - 02324

Young American Films  
Catalog of Ed. Films  
University of Illinois

Suggested Film (cont.)

Project V

1. Gateways To The Mind - 60 Min. - Free  
Association Films  
1621 Dragon Street  
Dallas, Texas 75207      or      Association Films  
Broad & Elm  
Ridgefield, N.J. 07657
2. Can Animals Think - \$2.00  
Almanac Films Inc.  
516 Fifth Ave.  
New York 18, New York
3. Bee City - \$2.00  
Almanac Films Inc.  
516 Fifth Ave.  
New York 18, New York
4. Dance of The Bees - \$5.50  
Wilmer Films & Slides  
Cathedral Station  
New York 25, New York
5. Behavior In Animals and Plants - 10 Min. - \$3.40 - 00533  
Coronet Films  
Catalog of Ed. Films  
University of Illinois
6. Adventure In Color - 14 Min.  
The Producer's Council, Inc.  
2029 K Street  
Washington, D.C. 20006

**INDUSTRIAL PREP**  
**ENGLISH**

INDUSTRIAL PREP ENGLISH

SOPHOMORE YEAR



**INDUSTRIAL PREP ENGLISH**

**SOPHOMORE YEAR.**

**TABLE OF CONTENTS**

- I. UNIT ONE - This Was the Year That Was...
- II. UNIT TWO - Know Yourself .....
- III. UNIT THREE - A Slice Of Life.....
- IV. UNIT FOUR - Correlation.....

## Unit One

### This Was The Year That Was - A Multi-Media Approach To The Mass Media

- I. Newspapers
- II. Magazines
- III. Motion Picture Selection
- IV. Fact Versus Opinion
- V. Listening
- VI. Multi-Media Project

Presently in the United States, 67 million newspapers are sold daily, over 240 million magazines are sold annually, 47 million people attend movies every year and at times over 100 million people have watched one television program. There is no doubt that the mass media have a tremendous influence on the U.S. population.

We have found that our students are attracted to the mass media. The looseleaf notebooks of Industrial students contain copies of Hot Rod, Car Craft, or the Daily News. Students are constantly talking about the movies they have seen over the weekend and many times schoolwork is laid aside for daily television programs.

Probably the student spends more time with mass media than with any other voluntary or involuntary educational institution and these experiences with the mass media affect his knowledge, attitudes, or his choice of occupation. It is for these reasons that we feel that the study of the mass media is essential for the program.

The student undoubtedly selects mass media material regardless of adult feelings; the key to the problem is for the teacher to take advantage of the students' normal interest in mass media and have the student arrive at criteria and choices that will lead to more discerning attitudes. It is hoped that such a study will help the student select the good from the bad, the creative from the trite, the quality from the tripe.

It is the purpose of this unit to make the student the master of, not the slave to the mass media.

### The World Of Industrial Prep English

Here is the World of Industrial Prep English - paperbacks, films, New York, cars, television and magazines.

The Industrial Prep Student is oriented to the present. He uses materials in school that what his interest, are relevant to his life or meaningful to him in his short range and long range goals.

The teacher accepts students for what they are and not what he wants them to be. A person trained in the traditional curriculum, competent in the skills of teaching, knowledgeable about the learning process, aware of what is relevant to teenagers, flexible enough to switch his methods to meet the challenge of his students and society and above all able to teach both The Cool World and Silas Marner.

The Industrial Prep curriculum is student centered; the student is the message. The material is presented on the assumption that the student feels a need for it. His interests and desires are used to plan the units, his maturity as a fourteen or fifteen year old is considered a basis for the depth of material and his culture and personal environment is accepted as a valid, valuable, and honest part of living.

But the student is not the sole premise on which the curriculum is founded. We know that immediately upon

graduation our students become involved in one of three situations. They continue their education, usually in a vocational school or junior college, secure a job or go into service. We therefore attempt to prepare them for these eventualities.

Our students enter vocational and technical fields that require training, but not lengthy education, or they attend school which require minimal literary expertise. We attempt to develop skills which will equip them for success in either jobs or schools. The traditional skills of reading, writing, speaking, listening, and thinking are developed, but rather than deluge them with facts which may prove worthless or be forgotten, we impress upon them inquisitiveness about what they learn, procedures for solving problems and the pitfalls of faulty thinking.

One means used to educate is through a unique method of correlation. We accept the premise that education is not turned on and off by ringing of bells and switching of classes, but is a continuing process which takes place throughout the day. Therefore, as the student travels throughout the day, attempts are made when possible by the subject teachers to relate the key topic to the classroom situation. It is hoped that this method develops in the student the attitude that education is a continuing process and not to be categorized. An additional benefit

is that the student sees that his teachers are aware of his progress and what he is producing.

The English program, though geared to a technical concept; does not limit nor channel students like automatons. We are vitally concerned with developing men, more than developing financial successes. The program recognizes and attempts to develop aesthetic qualities in every boy. We start with good, light, contemporary novels and as the student grows and matures, we introduce him to other forms, such as drama and poetry. As he matures, he develops a curiosity for the works of art and we broaden his outlook by trips to museums and Broadway plays. It is our feeling that if a student appreciates the lighter forms of the literary and artistic world, he will one day be ready for the heavier masterpieces.

The final goal of Industrial Prep and admittedly the most difficult, is to develop basic attitudinal postures that will enable the student to conform with job demands. These are such requirements as accepting responsibility, reporting to work everyday and punctually, finishing a job, having short range and long range goals. The curriculum molds these attitudes primarily by the demands and examples set by all the cooperating teachers.

#### Four Units - Five Skills

The Sophomore Year in Industrial Prep English is

divided into four units which stress the basic skills of any English course: reading, writing, speaking, listening, and thinking. Since the program is so committed to media study, it is to be expected that the study of the mass media is a major portion of the curriculum. The mass media unit, "This Was The Year That Was," develops in the student the ability to be a master of, not a slave to the mass media. For this to happen, an understanding of media are necessary. In the Sophomore Year, study is made of newspapers and magazines. The Junior Year is concerned with the study of television and radio and in the Senior Year, films are studied.

The goal of the psychology unit, "Know Yourself," is for the student to achieve a basic understanding of himself. It is hoped that by a greater comprehension of himself, the student will be able to guide and direct his own fate.

The photography unit, "A Slice of Life," is an effort to make the student look, observe, see. The key to awareness is to use these three qualities. The unit forces the student to use his eyes. Another goal is to train the student in comprehending abstractions. The unit will force the student to understand concepts because he will be able to see that something is present or missing, or right or wrong. The objective is to

develop student proficiency in abstract reasoning.

Finally, most of the correlated activities are grouped under the last unit. Teachers cooperate on similar projects and students see that knowledge is interrelated. No isolation, but total integration, this is the goal not only of this unit, but of the Industrial Prep Program.

Joseph Ellis  
Hackensack High School  
1969



### Acknowledgement

A special note of thanks is given to Richard Rau for his photography unit contribution, the time he spent teaching the Sophomore Industrial Prep classes, and the creativity he lent to the program.

## INDUSTRIAL PREP ENGLISH

C

SOPHOMORE YEAR

### A LEAP INTO THE FUTURE

#### THE WORLD AROUND US

In 1969 Neil Armstrong made a great leap into the twenty-first century by becoming the first man to press his foot on lunar soil.

Meanwhile in the circle of English many teachers are still holding on to their pre-Deweyian teaching concepts by teaching a literary form considered a "masterpiece" by another age to students who consider it a disaster, or by teaching Gerard Manly Hopkins or Geoffrey Chaucer so that they may pay homage to a respected college professor's favorite writers.

The 60's have demonstrated much advancement in the field of English. The dust of the media explosion has now cleared. Where once the placement of a reading machine or any mechanical or electrical instrument into a classroom was considered a fad, now we are involved in multi-media approaches to just about every subject. Where once all students read a hard-covered novel chosen by the teacher, now every student is encouraged to read a paperback of his choice. Where once film production was considered the province of only a Hollywood producer, now the youngest elementary school child can be trained to use the camera.

That the world is changing is a cliché, but the realization of the velocity of this change is not a cliché. The role of the teacher has also changed with

this swift transition. The English teacher who safely taught his "literary masterpiece" for years now faces and probably has always faced droopy eyelids and lethargic faces. While the teacher talks of Beowulf, the students daydream of peace marches, unjust wars, drugs and fast cars. Competency and understanding have always been traits of good teachers, but today relevancy is also essential. The teacher of today can no longer be the custodian of the past to children of the present, but he must be a purveyor of the present to adults of the future.

We have come to realize that teaching is not reporting or repeating and that education does not solely reside in the school house. Today's educational system encompasses both public and private institutions and people. Television and films are as much a part of the educational system as any Board of Education, and the James Browns, Bob Dylans and Francois Trauffants are as much educators as any classroom teacher.

"Laugh-In" and "Mission Impossible", though they may not last another season on television, have captured the essence of learning - picture, statement, reaction, cut! No drawn out logical, sequential rationale, that demands a person's undivided attention from forty to fifty minutes. No teacher possesses such ability, then why demand it of our students?

## MASS MEDIA

### Newspapers

#### I. Introduction to the Mass Media

- A. Definition of communication - A giving and receiving of ideas.
- B. Difference between basic communication and mass communication
- C. Purpose of Mass Communication:
  - 1. Education
  - 2. Entertainment
  - 3. Propaganda
- D. Definition of Mass Media
- E. Types of Mass Media
  - 1. The Press - Newspapers and Magazines
  - 2. Broadcasting - Radio - T.V.
  - 3. Film

#### II. History

- A. Johann Gutenberg - 1456
- B. Penny Papers
- C. Crusading in late 19th Century
- D. First Comic Strip - 1893 - The Yellow Kid
- E. William Randolph Hearst - 1898
  - 1. Yellow Journalism
  - 2. Battleship Maine
- F. 20th Century
  - 1. 67,000,000 newspapers sold everyday
  - 2. 1700 daily newspapers
  - 3. 8,000 weekly newspapers
- G. The Freedom of the Press

### III. Four Purposes of Journalism

- A. To Inform -
  - 1. Primary function
  - 2. Protection of law through Federal and State Constitutions
  - 3. Today's civilization could not function as it does without information from newspapers
- B. To Interpret -
  - 1. Complexity of today's civilization makes it impossible for one person to be an expert in many fields
  - 2. Aids understanding of news.
- C. To Guide -
  - 1. Editorials
  - 2. Editorial cartoons
  - 3. Columnists
- D. Entertain -
  - 1. Troubadors of Middle Ages
  - 2. Human interest stories
  - 3. Comics
  - 4. Advice columns
  - 5. Puzzles

### IV. Two Types of Papers

- A. Standard
- B. Tabloid

### V. News

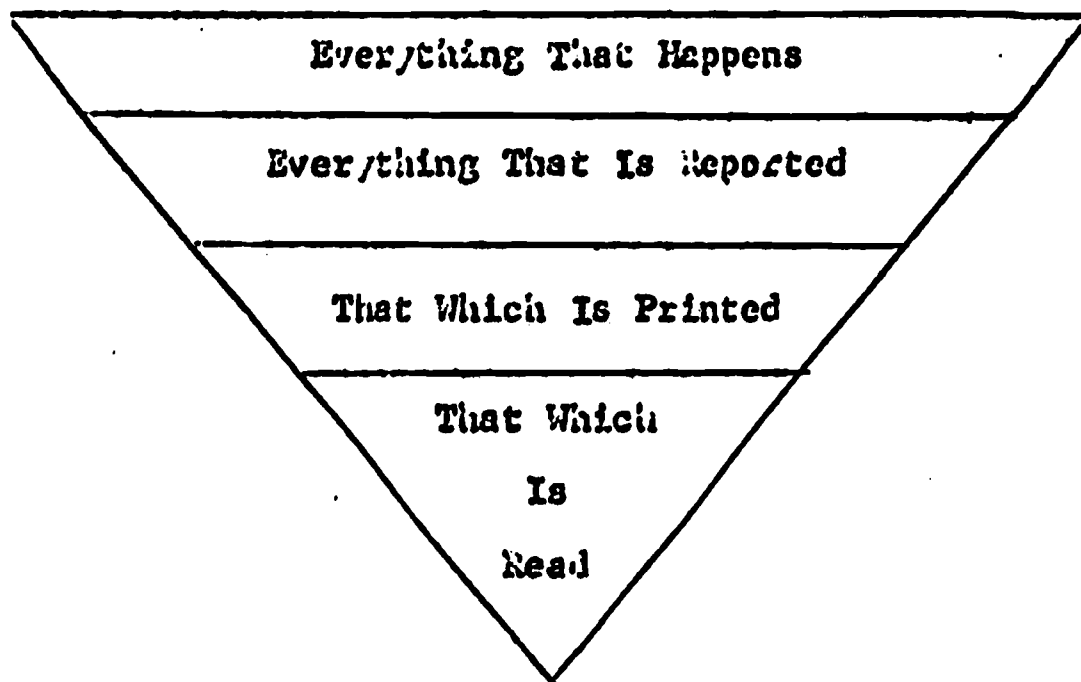
- A. Definition - News is a timely report of anything of interest to humanity
- B. Parts of a News Story
  - 1. Headline
  - 2. Lead or first paragraph
  - 3. Remainder
    - a. Inverted pyramid
    - b. Chronological pattern
    - c. Combination
- C. How News Reaches the Newspapers
  - 1. Reporter
  - 2. Correspondent

3. News Agencies
4. Feature Syndicates
5. Press Associations
  - a. Associated Press
  - b. United Press International
  - c. Reuters
6. Volunteer Staff

## VI. Two Important Pages

### A. Page One

1. Make-up
  - a. Balanced
  - b. Swing
  - c. Circus
2. Headlines
3. Quality of News
4. Source of News
5. Type of News
6. Style
7. Selectivity Triangle



- B. Editorial Page
  - 1. Definition of Editorial
    - a. Types of editorials
    - b. Purpose
  - 2. Editorial Cartoon
  - 3. Commentators
    - a. Gossip
    - b. Depester

## VII. Sections

- A. Sports
  - 1. Writers
  - 2. Newswriter
- B. Society and Women's Page
- C. Entertainment
  - 1. Television
  - 2. Radio
  - 3. Films
- D. Cultural
  - 1. Books
  - 2. Music
  - 3. Art
  - 4. Theater
- E. Business and Finance
  - 1. Stock Market
    - a. Definition
      - 1. Common stocks
      - 2. Stock exchanges
      - 3. Investment
    - b. How the Exchange Works
      - 1. the Broker
      - 2. the Floor
      - 3. the Board
    - c. How to read a financial report
    - d. Films
      - 1. Mr. Webster Takes Stock
      - 2. The Shareowner
      - 3. How Stocks are Bought and Sold
      - 4. How to Invest and Why.
      - 5. Market Place USA
    - e. A trip to be arranged to the N.Y. Stock Exchange.

- F. Comic Strips
  - 1. Influence of Comic Strips
  - 2. Types

- G. Advertisements  
(This part will be handled as part of the advertising and packaging unit.)



## FACT SHEET

### "Where Have All The Manhattan Newspapers Gone?

From 15 Dailies in 1900 to 3 in 1969"

- I. Times - Pre-1900
- II. Daily News - Mirror - (Mirror ceased publication in 1963)
- III. Post - Pre-1900
- IV. World Journal Tribune - Ceased Publication in 1967
  - A. Journal American - Started in 1937
    1. Journal - Pre-1900
    2. American - Pre-1900
  - B. Herald Tribune - Started in 1924
    1. Tribune - Pre-1900
    2. Herald - Pre-1900
      - a. Herald - Pre-1900
      - b. Morning Sun - Started 1916
        - 1) Press - Pre-1900
        - 2) Morning Sun - Pre-1900
  - C. World-Telegram and Sun - Started in 1950
    1. World-Telegram - Started in 1931
      - a. Evening World - Pre-1900
      - b. World - Pre-1900
      - c. Telegram - 1924
        - 1) Telegram - Pre-1900
        - 2) Mail or Express - Pre-1900
    2. Evening Sun - Started 1923
      - a. Evening Sun - Pre-1900
      - b. Globe & Commercial Advertiser - Started 1905
        - 1) Commercial Advertiser - Pre-1900
        - 2) Globe
- V. Daily Compass - Ceased Publication in 1952
- VI. Star - P.M.
  - A. P.M. - Ceased Publication in 1948
  - B. Star - Started in 1948 and ceased publication in 1949
- VII. Daily Graphic - Ceased Publication in 1932
- VIII. Evening News - Pre-1900 & ceased publication in 1905

### SUGGESTED ACTIVITIES

1. Cut out and paste on paper three newspaper articles from newspapers that:
  1. inform and/or interpret
  2. guide
  3. entertain
2. Bring to class daily, one newspaper. Try to obtain different types of newspapers. The examples of teaching points will come from these points.
3. Study a tabloid newspaper and one standard newspaper using these guidelines:
  - a. general appearance (paper stock, layout, color.)
  - b. headline (style and accuracy.)
  - c. placement of news stories
  - d. predominate news
  - e. value of paper to reader and community
4. Follow an important news item for a week in several newspapers and analyze according to the following questions:
  - a. on what page did the news item first appear?
  - b. where did it appear on succeeding days?
  - c. who wrote the story?
  - d. what other articles, editorials, letters to the editor, columns and cartoons appeared on the same subject?
  - e. differentiate the treatment of items from paper to paper, from writer to writer, and news agency to news agency.

- 100
- f. in what other media of mass communication did the story appear? How was it handled? Did the handling of the story differ from medium to medium?
  - g. what factors influenced the reporting?
5. Have each student choose a stock and follow its progress for two weeks. The students will tend to choose companies with which they are familiar, such as A.T.&T., G.M., Ford, or Bendix. By following the stock, much will be learned of finance in general. This can be related to a trip to the New York Stock Exchange. The following questions will provide an analysis of the Stock Market:
- a. What stock exchange is the company listed?
  - b. What stock exchanges are there?
  - c. What is the Dow-Jones Average?
  - d. What was the Dow-Jones average at the start of the project period? At the conclusion?
  - e. What was the progress of each chosen stock during the same period?
  - f. What explanation was given for the fluctuation of the stock? of the Market?
  - g. Which papers give good Market coverage? Why do you say this?
  - h. What type of stocks did well during the two week period?

6. Choose an editorial from a paper and analyze it according to the following questions:

- a. What type is it? International, National, State, local.
- b. What topic is it about?
- c. What is the purpose of the editorial?
- d. Is it fair? Logical? True?
- e. Do you agree with the conclusion? Why or why not?

Choose an editorial cartoon from a paper and analyze it according to the following questions:

- a. What topic is depicted?
- b. Does it relate to a printed editorial?
- c. Who is the cartoonist?
- d. Is it effective? Why or why not?
- e. Is it fair? Logical? True?
- f. In a few sentences describe the cartoon and what the cartoonist is trying to say.

7. Take a trip to a newspaper - the purpose should be two-fold: one from a technical aspect of putting the paper together, and the other from an academic aspect of bringing the paper to the presses.

8. Obtain copies of newspapers on one particular day from across the U.S. Compare the way the news stories are handled. This can be done by asking a number of newspapers to send copies on a particular day or students can pick-up many different papers at Times Square and 42nd Street.

- a. Where did it happen?
- b. When and why did it happen?
- c. Difference in presentation.

- d. Are the stories objective?
  - e. Are vague generalities, cliches or propaganda words used?
9. Compare editorials from various papers.
10. A discussion of careers in the newspaper fields.  
Possibly a speaker from a local paper can be of help.
11. Compare the reporting of a story in two news magazines.
- a. Are the facts and opinions the same?
  - b. What adjectives are used and how are they used by each magazine?
  - c. What types and amount of pictures go with each story?
  - d. Where and how is the story placed in each magazine and on each page?
12. Analyze the pictures in a magazine
- a. What type of shot is used? - (Long shot - medium shot or close-up)
  - b. Where is the emphasis of the picture (action - face)?
  - c. What is the size used?
  - d. Was any cropping used?
  - e. Does the picture editorialize? If so, how and why?

## MAGAZINES

### I. Characteristics

- A. Collection or Storehouse
- B. Bound or Covered
- C. Circulation - 240 million copies of magazines sold per year
  - 1. weekly
  - 2. bimonthly
- D. Price
  - 1. Newstand
  - 2. Subscriptions

### II. Types

- A. General: Life, Look, Reader's Digest
- B. News: Time, Newsweek, U.S. News & World Report
- C. Youth: Seventeen, Ingenue, Boy's Life, Teen
- D. Sports: Sports Illustrated, Field & Stream, Sport, Sports Field
- E. Car: Hot Rod Magazine, Car Craft, Motor Trend
- F. Science & Technology: Mechanix Illustrated, Popular Electronics, Popular Science Monthly, Science Digest
- G. Slick: Esquire, Holiday, Playboy
- H. Cultural: Atlantic, Harpers, The New Yorker
- I. Woman's: Good Housekeeping, Ladies Home Journal, McCalls
- J. Other Small Types
  - 1. Entertainment
  - 2. Fraternal

3. Hobby
4. Religious
5. Vocational
6. Business

### III. Focus and Appeal

- A. Age Group
- B. Sex
- C. Education Level
- D. Economic Level
- E. Politics
- F. Social Status
- G. Vocational Background
- H. Racial Group

### IV. Appearance

- A. Photography
- B. Color
- C. Paper
- D. Printing
- E. Cover
- F. Layout

### V. Advertising

- A. Types of products advertised
- B. Types of products specifically not advertised
- C. Quality of products
- D. Cost of Advertising

## **VI. Content**

### **A. Politics**

- 1. national**
- 2. international**

### **B. Business & Finance**

### **C. Entertainment**

- 1. cinema**
- 2. music**
- 3. radio**
- 4. television**
- 5. theater**

### **D. Books**

### **E. Art**

### **F. Law**

### **G. Medicine**

### **H. Science**

### **I. Sport**

### **J. Press**

### **K. Education**



### MAGAZINE ANALYSIS

1. Name of Magazine
2. Date of Issue
3. Is it weekly? biweekly? monthly?
4. Publisher
5. Publishing Company & Address
6. Editor-in-Chief
7. Circulation Figures \_\_\_\_\_ Source of Figure \_\_\_\_\_
8. Any Famous or Expert Writes or Photographers?
9. Price (Newstand) (Subscription)
10. For Whom is Magazine Designed?
11. Classification of Magazine

## Motion Picture Selection

### I. What is Playing and Where?

- A. Newspaper
  - 1. Title of Show
  - 2. Stars
  - 3. Producer
  - 4. Director
  - 5. Music
  - 6. Company
  - 7. Address of Theater & Phone Number
  - 8. Time of showings
- B. ~~Cue Magazine~~
  - 1. Listing of theaters in New York Metropolitan Area
  - 2. Capsule Review of Films
- C. Television Advertisements
- D. Billboards
- E. Preview of Coming Attractions

### II. The Theater

- A. Types
  - 1. Neighborhood
  - 2. Shopping Center
  - 3. Drive-ins
  - 4. Art
- B. Showings
  - 1. Saturation Showing - one film at many theaters at same time
  - 2. Privileged Showing - one film at one theater at one time
- C. Audience
  - 1. 52 per cent under age twenty
  - 2. 72 percent under age thirty
- D. Types of Films
  - 1. Color or black and white
  - 2. New or revival
  - 3. Size
    - a. Standard size - 1:33
    - b. Vista Vision - 1:75
    - c. Cinerama - 2:00
    - d. Todd A-O - 2:00
    - e. Cinemascope - 2:33
    - f. Panavision - 2:33

### III. What is Film About?

- A. Display advertisements
- B. Synopsis in newspapers
- C. Capsule reviews in Cue
- D. Major reviews
  - 1. The day after the show opens in New York
  - 2. The day after the show opens in the local area
  - 3. Appears in magazines one week after the film premieres
  - 4. What is in film review?
    - a. Plot of show
    - b. Major aspect of show
      - 1) Acting
      - 2) Direction
      - 3) Scenery
      - 4) Music (if any)
      - 5) Story line
      - 6) Photography
      - 7) Costuming
      - 8) Make-up
    - c. concrete examples of parts of show
    - d. general opinion

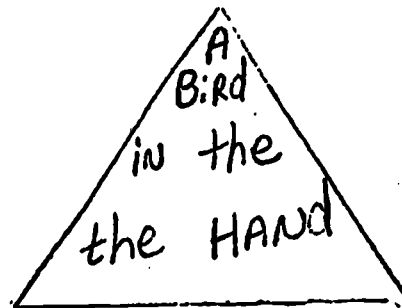
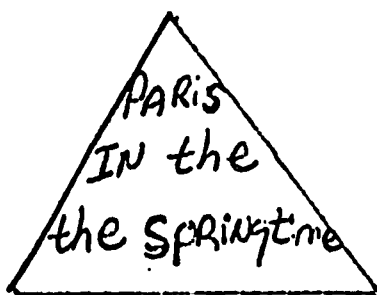
### IV. Ratings - Code of Motion Picture Association of America

- A. "G" - for general audiences, without regard to age
- B. "GP" - for mature audiences, with parents advised to exercise their own discretion in taking their children
- C. "R" - for restricted audiences, with children under 16 not admitted unless accompanied by parent or guardian
- D. "X" - for adult audiences only, with no one under 16 admitted

## Fact Versus Opinion

### I. Tests of Observation

- A. Show students some optical illusions. Students are to see that many objects they see are not what they seem to be.
- B. Flash the following triangles on a screen in fractions of a second. Once again, show students that they are not truly observant.



- C. Take watches from several students. Have them go to the board and draw their own watch faces. Few can do this. Ask students why? Many students have looked at their watches thousands of times and do not remember what they see.

### II. Do Not Interpret

- A. Show Rumor Clinic film strip of the Anti-Defamation League of B'nai B'rith. This is similar to the childhood game of Telephone. As information is passed from student to student, it tends to lose its truth and becomes interpretive. Why did the truth change as it was passed on?
  1. Why would we strive for truth?
  2. How can we strive for truth?
  3. What problems arise when truth is twisted?
- B. Stage an unexpected scene in class. Ask students to report what they observed. There will be much variation. Discuss why.
- C. Have students select sentences which report and sentences which interpret.

1. a) There is my teacher, Mr. Jones.  
b) Mr. Jones is an excellent teacher.
2. a) After the North Koreans crossed the 38th Parallel, President Truman sent U.S. troops to engage them.  
b) The North Koreans crossed the 38th Parallel and caused the Korean Conflict.
3. a) Babe Ruth hit 60 home runs in 1927.  
b) Babe Ruth was the best hitter of all times.

### III. Observe and Arrange Details

- A. Have students observe one of their hands.
  1. List observation of color, shape, size, texture relationships
  2. Arrange into some sort of order
- B. Have students observe, and list, and arrange the details of:
  1. a tie
  2. a watch
  3. a multi-colored shirt

### IV. Generality vs Detail of a Photograph = Generality vs Detail of Composition

- A. Long Shot = Generality
  1. cannot see specifics
  2. too crowded
  3. overall view
  4. cannot know anything well
  5. unclear as to what photograph is trying to say
- B. Close-Up = Details
  1. very specific - one point
  2. easy to pick out parts
  3. no extraneous material - uncluttered
  4. better idea of what photograph is trying to say

### V. What are Facts and Opinions

- A. Fact - An actual event, occurrence, quality or relation that can be verified, tested or established and remains the same for all points of view
  1. It is 75 degrees F outside.
  2. Bob received an F in English.
  3. Hackensack High School has 2400 students.
  4. He has .01% alcohol in his blood.

- B. Opinion - Conclusion a person reaches after evaluating the facts.
1. It is hot out.
  2. Bob is a poor English student.
  3. Hackensack High School is a big school.
  4. He is drunk.

## VI. Comparisons of Newspapers

- A. Make a comparison of two newspaper articles based on the 5 W's
1. Who?
  2. What?
  3. Where?
  4. When?
  5. Why or How?
- B. What to look for
1. Numbers
  2. Names
  3. Ages
  4. Titles or positions of people involved
  5. Places
  6. Colors
  7. Relationships
  8. Actions
  9. Colors
  10. Sizes
  11. Shapes

## VII. Write a news story using the 5 W's on any of the following topics

- A. Report an athletic event that you viewed as it would be presented in a major newspaper.
- B. Report an experiment in Biology Class for a science magazine as if it were a major scientific discovery.
- C. Report an event from history for a local newspaper as if it were a current event.
- D. Report an athletic event which you recently participated in for a major newspaper as if it were a sports spectacular.
- E. Write an article for a union or company newspaper.
- F. Write an article for a hobby journal.

## LESSONS ON LISTENING

- I. Definition of terms:
  - A. listening - physical and mental awareness
  - B. hearing - physical acknowledgement
- II. Importance of listening:
  - A. personality
  - B. social life
  - C. business life
  - D. citizenship
- III. Manners in listening:
  - A. Golden Rule - Listen to others as you would like others to listen to you.
  - B. Use speaker's name when addressing him.
  - C. Look at speaker.
  - D. Concentrate on what he says.
  - E. Disagree mentally.
  - F. Do not interrupt.
  - G. Wait until speaker is finished before leaving.
- IV. Brown-Carlson Listening Comprehension Test:
  - A. Immediate recall
  - B. Following directions
  - C. Recognizing transitions
  - D. Recognizing word meanings
  - E. Lecture comprehension

V. Listening games to stress the need for and to sharpen listening skills:

A. Read a physical scene

1. Have students make a list of descriptions
2. Have students establish rules for adequate listening descriptions

B. Telephone

1. Send a message through a series of students to see if it has changed from the original message

C. Add a sentences

1. Start a story with a sentence and have each student in class add a new logical sentence and repeat the previous ones. This exercise may be done with composition, but with this listening exercise, no writing must be done.
2. Establish rules for this facet of listening, which naturally will include many writing rules.

VI. Listening to directions by using established rules:

A. Give class a set of directions and have them rewrite them.

B. Begin a sentence of instructions and have each student repeat previous instructions and add on one additional sentence.

C. Give each student a diagram that he must explain to another student and who will draw the diagram from the directions of first student. (See worksheet insert)

VI. Listening for information:

A. Read a short paragraph. Have students take notes and make an outline.

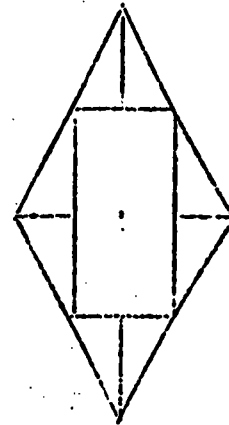
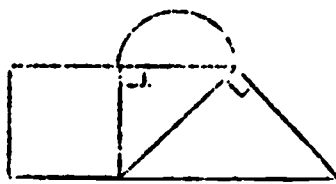
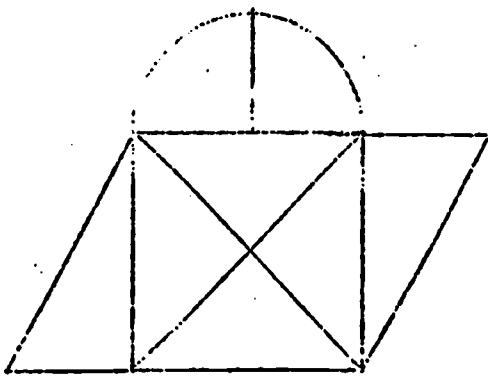
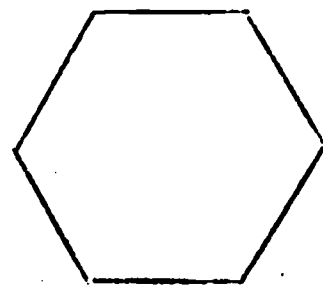
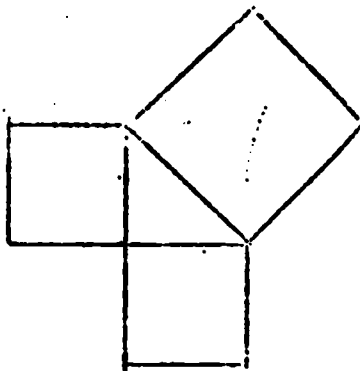
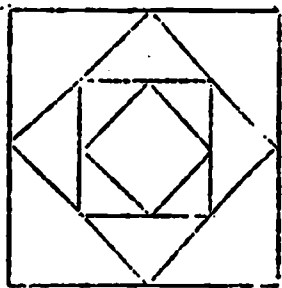
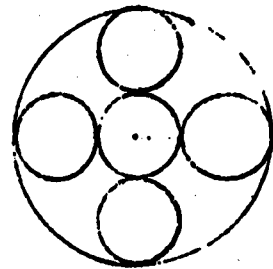
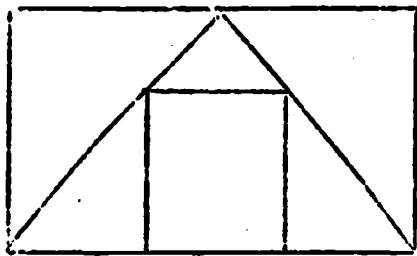
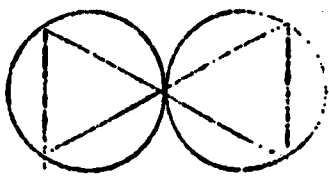
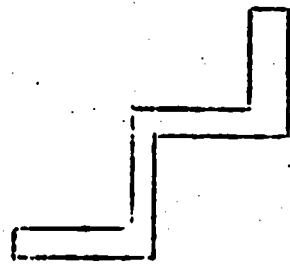
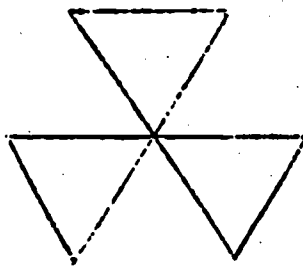
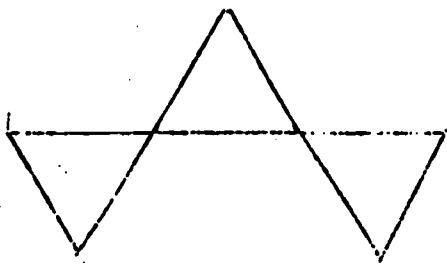
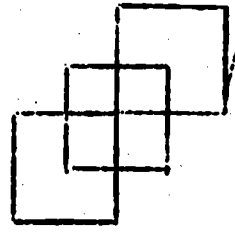
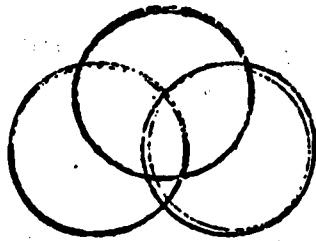
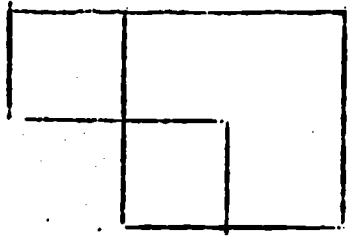
B. Read a passage and have students point out connections.

C. Have students listen to a television show in class and jot down main ideas of discussion.

D. Show Bell Telephone Film - The Alphabet Conspiracy List main ideas and details and put into an outline.



- E. Give a small lecture to the students. Have them take notes and outline the presentation. Finally have them write a paragraph that summarizes the lecture. This involves discernment, organization, analysis, listening and writing skills.
- F. Bring television set or radio into room and have students listen to a newscast. Sometimes they may take notes, or sometimes solely listen. Have them relate what they have heard.
- G. Read a news article and have students write down important details.



25

Project - A Multi-Media Approach To The Mass Media

Recommendations

1. Project should not be too deep or subtle lest the students become confused.
2. Always keep the students moving forward. This prevents floundering and feeling of non-accomplishment.
3. Have the project completed in steps so that students can see the progress and they can keep the end in sight.
4. Divide the work among the students and make each one responsible for his assignment.
5. When choosing topics, allow students to take pride in what they know of the adult world and in their own teenage world.
6. Teacher should do much of the preparation for the project. This will overcome any administrative obstacles which might frustrate the students.
7. In searching for ways of doing project, keep in mind the skills, training and interests of students, i.e. shops (metal, wood, auto) art, music, electronics, photography, etc.
8. Remind students of the relationship of project to the mass media, English, and school work. Students should not feel that this is busy work.

**Project - This Was The Year That Was**

**I. Possible Types of Presentation**

- A. Film - Super 8mm
- B. Slide Show - 35mm
- C. Bulletin Board Montage
- D. Poster Montage
- E. Tape(s)

**II. Possible Approaches to Project**

- A. Thematic
- B. Chronological
- C. Topical

**III. Possible Topics for Presentation**

- A. Politics & Government
- B. Labor & Business
- C. Sports
- D. Cars
- E. Entertainment
- F. Education
- G. Science

**IV. Media Used for Presentation**

- A. Pictures - film, slide, newspaper, magazine
- B. Records & Tapes
- C. Art Work
- D. Printing

**V. Source of Ideas**

- A. Newspapers - layout, advertisements, special sections

- B. Magazines - layout, advertisements
- C. Current Paperback Selections - titles & covers
- D. Records - music & record jackets
- E. Television - "Laugh-in" technique, news documentaries
- F. Yearbooks or Annuals - Life Magazine, Time Capsules,  
School Yearbooks, or Professional Sport Yearbooks
- G. Window Displays - especially in Greenwich Village,  
or area shopping centers

## Alternate Film Project

Produce either a slide or film show based on the lyrics of a popular song. Here is an example of one possibility.

### "The Quest" ("The Impossible Dream")

from the Broadway show The Man of La Mancha.

To dream the impossible dream, (black & white children playing together)

To fight the unbeatable foe, (Dr. Jones Salk in his laboratory)

To bear the unbearable sorrow (funeral pictures of the widows of John F. Kennedy, Robert F. Kennedy, & Martin Luther King)

To run where the brave dare not go. (raising of flag at Iwo Jima)

To right the unrightable wrong, (starving Biafran children)

To love, pure and chaste, from afar (people going to church)

To try, when your arms are too weary, (Peace Corps, Vista)

To reach the unreachable star! (Neil Armstrong stepping on the moon)

This is my Quest, to follow that star (convening and building Resurrection City)

No matter how hopeless, no matter how far; (U.S. space program)

To fight for the right without question or pause, (World War II)

To be willing to march into hell for a heavenly cause! (Chicago Riots - 1968)

And I know, if I'll only be true to this glorious quest,  
(Art work of glorious quests)

That my heart will be peaceful and calm when I'm laid to rest.  
(Art work of glorious quests)

And the world will be better for this, (Lincoln at  
Gettysburg, Martin Luther King at the Lincoln  
Memorial)

That one man, scorned and covered with scars, (Lincoln  
at Gettysburg, Martin Luther King at the Lincoln  
Memorial)

Still strove, with his last ounce of courage (RFK at  
the Democratic Convention - 1968)

To reach the unreachable stars! (RFK dead at L.A.)

## UNIT TWO

### Know Yourself

- I. Speech
- II. Organization in Writing
- III. Problem Solving
- IV. Motivational Behavior Experiment
- V. Literature
- VI. Projects

The inclusion of psychology in a basic form is an attempt to help the student achieve a greater awareness of himself. This endeavor is not a radical departure from the customary curriculum for traditionally the discussion of literature does much the same thing. But the combination of the two efforts is an attempt to re-inforce the concepts of psychology and literature and instill basic attitudinal changes in the student in relation to education, work, and life.

The other sections of this unit are an attempt to help students communicate. On constant visitation to industry and business we have seen writing, though important for success in the academic world, is rarely used as a medium or a criteria for success in the lower echelons of industry. The writing given in Industrial Prep English is an attempt to have the students become a better communicator of ideas when the need arises in industry or in a social context.



The prime quality for success in industry is oral communication. However, no matter what profession or vocation a person pursues, he is always talking to his fellow human-beings. The lessons in speech attempt to offer the student an opportunity to become a more effective person by improving his ability to communicate ideas orally.

Finally, problem solving is included to assist the student in making critical judgements in a complex and competitive industrial world. This section provides the student with the means for attacking and solving problems with which he is confronted.

## SPEECH

### I. Introduction

#### A. Skit on effective speech.

1. Who is able to carry on the better conversation? Why?
2. Why was the girl not impressed with the boy?
3. What can be done to broaden the range of a person?
4. Did the girl attempt to stimulate discussion? How?
5. How can the boy go about presenting a better personality?

#### B. Record on synthetic speech- Bell Laboratories

#### C. Have students read articles into tape recorder.

#### D. Socio-Drama

#### E. Tele-Trainer

- II. Socio - Drama - A Socio - Drama is an unrehearsed skit that talks about a real-life problem. The talkers do not rehearse it, for then it would be a play, not really a conversation. Instead a single outline is drawn up as to where the conversation is headed but no dialogue is prepared. The players speak on the subject spontaneously.

#### Possible Subjects -

1. A son asking a father for the keys to the family car.
2. The school disciplinarian calling a father to find out why the son was not in school.
3. A buyer complaining about a defective bowling ball to a salesman.
4. Complaining to a neighbor about a loud T.V.
5. Two boys talking about their parents.

SKIT FOR SPEECH INTRODUCTION

Narrator: Not only the parrot can talk, but even machines are able to say a few words that are easily understood by listeners. So merely saying words is no great accomplishment.

I am sure that we all know people who talk and talk and talk all the time, yet say nothing. Unfortunately too many of us are like parrots and mechanical men. We either have nothing or very little to say or when we say something it means nothing.

Fortunately few of us have to write to earn a living or make friends; however, all of us must talk. In fact after seeing what we wear and how well groomed we are, people look at our speeches. First impressions may not be true impressions, but they are lasting.

What impression do you think this boy makes on the girl he meets.

Narrator: Richard Jones this is Marilyn Michaels.

Marilyn: Hi Richard!

Richard: Yeah, hi!

(SILENCE)

Marilyn: What school do you go to?

Richard: Mackonsack - High School - in Mackonsack,

Marilyn: I go to Mackonack.

Richard: That's nice.

(SILENCE)

Marilyn: What course are you taking?

Richard: Duk Industrial Course.

Marilyn: Industrial - I've never heard of that. What's that?

Richard: Oh, it's a course in the school. We fool around with things like ducts and levers.

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What impression do you think this boy makes on the girl he meets.

Narrator: Richard Jones this is Marilyn Michaels.

Marilyn: Hi Richard!

Richard: Yeah, Hi!

(SILENCE)

Marilyn: What school do you go to?

Richard: Mackonsack High School - in Mackonsack,

Marilyn: I go to River Hill.

Richard: That's nice.

(SILENCE)

Marilyn: What course are you taking?

Richard: Dual Industrial Course.

Marilyn: Industrial - I've never heard of that. What's that?

Richard: Oh, it's a course in the school. We fool around with things like ducts and levers.

Cont.

Marilyn: Oh -

(SILENCE)

Marilyn: Read any books lately?

Richard: Ah, I don't like to read books, but I almost finished reading about some Indian boy who scalped people. - I think he should have scalped my English teacher for making us read the book.

(SHORT PAUSE)

Marilyn: I guess you didn't like it.

Richard: Nah, it was boring.

Marilyn: Have you recently read in the newspaper about the Viet Nam situation?

Richard: Ha! I only read the comics. I don't believe in worrying about the world.

Marilyn: Well, what do you do in your free time?

Richard: Oh, I pump gas on River Road.

Marilyn: Do you like the job?

Richard: Nah - it's only a job and I'm makin' money.

(SILENCE)

Marilyn: Oh, excuse me - I see Betty motioning me from the other side. Bye..

Richard: Uh - Uh -

Narrator: Richard left alone, is puzzled - Betty is not even in the room.

## TELEPHONE TECHNIQUES

### I. Use of the Tele-trainer:

This machine, The Tele-trainer which is provided by the telephone company is a practice telephone consisting of two activated telephones and a loudspeaking control unit. It provides for stimulating dial tone, ringing and busy signals. Books are provided to help with the plan.

### II. Purpose:

- A. To orient students in proper use of telephone procedure
- B. To teach students to request information
- C. To teach students to take orders over a phone.

### III. Suggested Activities:

- A. In order to use writing and speech, have students taking parts in conversation write an outline of what they will say on the phone.
  1. Order two tickets at an airport for a morning flight to Sioux City, Iowa on Thursday.

#### Problems Are:

- a. obtaining the correct department
  - b. speaking to the correct person
  - c. no direct flights to the city
  - d. no planes are available in that part of day, or the plane is filled
  - e. plane leaves for Kennedy Airport but returns to La Guardia Airport.
2. Your employer wants you to send an air-mail package to Belgium. Uncertain of the amount of postage required, you call the Post Office. Remember, rarely on calling any big concern will you talk directly to the proper person.
  3. Place an advertisement in the newspaper for a mechanic's assistant for your small gas station.

4. Make an appointment for a job interview at a local soda bottling company.
  5. Answer a phone at your shop for your foreman who is on vacation.
  6. You are at home and need an ambulance; the fire department.
  7. Complain to the newspaper because you did not receive your paper.
  8. Order a carbureator from a G.I. parts distribution factory for a 1960, 3 cylinder Chevrolet.
  9. Complain to the neighbor who lives below you in an apartment building about his loud television set.
  10. Find out the price of air conditioning your entire two family house.
  11. Answer an ad in the newspaper for a company who needs a mail clerk.
  12. Call your son's school seeking information about his failures.
  13. Inquire at the local Selective Service Board about the various options a boy has in entering the service.
  14. Report your car accident to your insurance company.
  15. Order two tickets to a Broadway show.
- B. Have students criticize each other at the end of each conversation.
- C. Have students establish criteria for speaking on telephone.
- D. The Phone Book:
- a. Use
  - b. Alphabetical Listings
  - c. Yellow Pages
- E. Films from the Telephone Company:
- a. A Manner of Speaking
  - b. Voice of Your Business
  - c. Beyond all Barriers

## SPEECH

### I. Preliminary Steps

#### A. Attitude - Must want to speak

- a. What value is public speaking:
1. Goal or profession i.e. lawyer, teacher, salesman, etc.
  2. To learn to speak - think out loud.
    - a. make ideas clear to other people.
    - b. gain acceptance of your viewpoint.
    - c. express your enthusiasm vividly.
    - d. to learn to listen
- b. Attitude toward yourself:
1. Self-confidence - there is no magic formula - confidence must be developed.
  2. Knowledge of subject -
  3. Organize -

#### B. Choosing Your Subject:

- a. Purpose of Speech
- |              |   |  |
|--------------|---|--|
| to inform    | = | Response Desire from the audience, understanding |
| to convince  | - | belief   |
| to actuate   | - | action   |
| to stimulate | - | inspire  |
| to entertain | - | enjoyment  |
- b. Find a Subject suitable to your audience, occasion and time limit.
1. Choose those things with which are familiar -
  2. Speech must suit audience
  3. Four and five minutes in length

#### C. Planning a speech is similar to planning a house - Organization

1. time
2. space.

#### D. Outline - Blueprint of the Speech

- a. Subject -
- b. State a purpose
- c. List ideas in order



## II. Selecting Material

- a. Definition -
- b. Comparison -
- c. Examples -

### B. Type of Material

- a. Unusual -
- b. Usual -
- c. Exciting -
- d. Personal \*
- e. Humorous

## III. Composing your speech -

### A. Introduction

- a. Get attention -
- b. Give audience reason for listening -
- c. Prepare audience for what is to follow -

### B. Body

- a. Unity
- b. Coherence -
- c. Emphasis -

### C. Conclusion

- a. Summarize
- b. Final point
- c. Refer back to main idea

## IV. Delivering Speech -

### A. Verbal fluency -

Communication is transferring of ideas from speaker to listener without changing the meaning,

- a. pause if stuck -
- b. Don't memorize, but know speech

### B. Voice

- a. Breathe normally, relax
- b. Reach people in last row. different speed, pitch, monotony
- c. Distinctly
- d. Correctly

### C. Body

- a. hands -
- b. feet -
- c. head - eye contact -

- D. Visual Aids - aid should not take over; it should clarify
  - a. Blackboard -
  - b. Models and pictures -
  - c. Charts
  - d. overhead projector.

V. Speech to Instruct ..

- A. Instruction: How to: Giving Directions
  - a. Introduction - all implements ready.
    - 1. tell audience what you are going to do
    - 2. they will become proficient
  - b. The body: What can be taught in time allowed to speaker?
    - 1. easy steps - one phase
    - 2. They should be able to perform after you talk.
  - c. Conclusion
    - 1. Repetition of main steps

VI. Criticism - Constructive - Destructive

- A. By being able to criticize we improve ourselves.
- B. Evaluation
  - 1. Voice
  - 2. Organization
  - 3. Delivery
  - 4. Effect on Audience
  - 5. Comments

VII. Projects

- A. Have a different student each day give a five minute newscast similar to newscasts of local radio and television stations.
- B. Have a different student give a daily five minute review which the class learned the day before from any class.
- C. Have informal debates on topics of interest to students - Try to correlate writing unit with speaking unit.
  - 1. Ford vs. Chevys
  - 2. American Cars vs. Foreign Cars
  - 3. Hackensack High School vs. High School in a multitude of areas
  - 4. One Athlete vs. Another Athlete
  - 5. Drag Times vs. Drag News

## EVALUATION SHEET

Speaker: \_\_\_\_\_

Date \_\_\_\_\_

### I. Voice

- A. Volume
- B. Rate
- C. Articulation

### II. Organization

- A. Introduction
  - 1. gain contact
  - 2. arouse interest
  - 3. reveal specific purpose
- B. Body
  - 1. unity
  - 2. substance
  - 3. coherence
- C. Conclusion
  - 1. fulfillment of specific purpose
  - 2. summarize main points
  - 3. does the audience know it is the end?

### III. Delivery

- A. Posture
- B. Bodily action and gestures
- C. Eye Contact

### IV. Effect on Audience

- A. Knowledge of topic
- B. Handling of discussion

### V. Comments

## MODEL SPEECH OUTLINE

1. Subject - Rules for Sanitary Laboratories
2. General Purpose - To inform
3. Specific Purpose - To explain to new employees the rules for working in sanitary laboratories.
4. Audience - To new assistant laboratory technicians of Eastern Telephone Laboratory.

## ORIENTATION OUTLINE

- I. The Necessity for Sanitary Conditions
  - A. Losses in equipment
  - B. Disruption of service
  - C. Lower profits
- II. Procedure for Sanitization
  - A. On entering grounds
    1. car
    2. individual exercises
  - B. On entering decontamination rooms
    1. street clothes
    2. work clothes
    3. wash
    4. vacuum
  - C. On entering work areas -
    1. Check with supervisor
    2. enter ultra violet chamber
    3. buddy check
  - D. While working -
    1. No smoking
    2. No foreign substance in mouth
    3. disposal of work material
- III. Procedure for Desanitization
  - A. Reversal of sanitizing procedure
    1. on leaving work area -
      - a. waste baskets
      - b. final cleaning of work area
      - c. proper filling of materials
    2. On entering desanitized room
      - a. work clothes
      - b. street clothes
      - c. wash
      - d. vacuum
    3. on leaving grounds
      - a. secondary gates
      - b. parking lots
- IV. Benefits of Strict Procedure
  - A. To Company
  - B. To individual

## OUTLINING

### I. Organizing For Answers

#### A. Definition

1. Play 20 questions to show use of division.
2. Show comparisons of outlines of maps to full detail maps.

#### B. Mechanics of outlines

1. Use of numbers and letters.

I.

A.

B.

1.

2.

a.

b.

(1)  
(2)

(a)  
(b)

II. A.

B.

a. topical

b. sentence

#### C. Create outlines of objects with which pupils are familiar.

1. Outline questions used in 20 questions skit.
2. Foods in refrigerator.
3. Parts of a car.
4. Subjects offered in school.
5. School's athletic program.
6. Measurement systems.
7. Duct systems.
8. Selecting a wardrobe

**D. Procedure**

1. List all possible topics
2. Select key, main, or broadest parts
3. Put details under key parts
4. Eliminate some topics
5. Place in order
  - a. time
  - b. space
  - c. importance

## Example of an Outline

### START OF A SCHOOL DAY FOR A STUDENT

#### I. Home

##### A. Bed

1. Alarm rings
2. Turn off alarm
3. Out of bed

##### B. Bathroom

1. Wash
2. Shave
3. Dress

##### C. Breakfast

1. Juice
2. Scrambled eggs
3. Toast
4. Butter
5. Milk

#### II. Travel

##### A. Leave Home

##### B. Bus Stop

1. Meet girl friend
  - a. Ask her about homework
  - b. Ask for a date
2. Meet boy friend with car
3. Go with boy friend

- C. Journey in car
  - 1. Park car
  - 2. Go to Jack's for coffee

### III. School

#### A. Homeroom

- 1. Take seat
- 2. Notices
  - a. Basketball Game
    - 1. 8:30 p.m.
    - 2. Home
    - 3. Against Teaneck High School
  - b. Dance
    - 1. Saturday
    - 2. 8:30 p.m.
    - 3. School Dress

#### B. First period bell

- 1. Meet Tom in hall
- 2. Arrive safely at first period class



## Problem Solving

### I. Dilemma of Students

#### A. School Level

1. What program and courses to take?
2. Getting along with teachers
3. What sport to participate in?

#### B. Family Level

1. Getting along with brothers and sisters
2. Getting along with parents
3. Insufficient money

#### C. National Level

1. Black vs White
2. Democrat vs Republican
3. War vs Peace

#### D. Personal Level

1. Which girl to go out with?
2. Future schools and career
3. Draft vs Enlistment

### II. Definition of Thinking

#### A. What thinking is not:

1. Daydreaming - "Ten years from today I will be a millionaire."
2. Justification - "This test is too hard; I will cheat."

3. Emotional - "Tom is my friend; I'll let him copy my homework."
4. Remembering - "I had a great summer vacation last year."
5. Guessing - "I guess my mother will let me go to the dance."

3. What thinking is: a process of examining all possible facts available, and eventually comint to a conclusion based upon these facts

1. Scientist in the laboratory
2. Auto Mechanic searching for a problem
3. The Engineer attempting to solve a problem
4. Deciding on a future career - investigate then invest
  - a. read material about the job
  - b. consult counsellors
  - c. observe a person on the job
  - d. self-evaluation - (personality, intelligence, finances, temperament)
  - e. your past experience in closely related work
  - f. on-the job training
  - g. training needed
  - h. weigh advantages and disadvantages
  - i. decide

LAST OF THE 1990s - A DECISION MAKING PROBLEM

Jay Hall - University of Texas

You are in a space crew originally scheduled to rendezvous with a mother ship on the lighted surface of the moon. Mechanical difficulties however, have forced your ship to crash-land at a spot some 200 miles from the rendezvous point. The rough landing damaged much of the equipment aboard. Since survival depends upon reaching the mother ship, the most critical items must be chosen for the 200 mile trip. Below are listed 15 items left intact after landing. Your task is to rank them in terms of their importance to your crew in its attempt to reach the rendezvous point. Place number 1 by the most important item, number 2 by the second most important item and so on through number 15, the least important.

- \_\_\_\_\_ Box of matches
- \_\_\_\_\_ Food concentrate
- \_\_\_\_\_ 50 feet of nylon rope
- \_\_\_\_\_ Parachute silk
- \_\_\_\_\_ Portable heating unit
- \_\_\_\_\_ Two .45 calibre pistols
- \_\_\_\_\_ One case of dehydrated milk
- \_\_\_\_\_ Two 100-pound tanks of oxygen
- \_\_\_\_\_ Stellar map
- \_\_\_\_\_ Life raft
- \_\_\_\_\_ Magnetic compass
- \_\_\_\_\_ 5 gallons of water
- \_\_\_\_\_ Signal flares
- \_\_\_\_\_ First aid kit containing injection needles
- \_\_\_\_\_ Solar-powered FM receiver-transmitter.

### III. Black Box Exercise

Seal a number of small boxes with different common objects. Have each student go through a series of exercises of his own choosing so that he will be able to discover what is located in his box.

### IV. "Lost on the Moon" Exercise-

LOG OF THE 1961-62 EXPEDITION TO THE MOON

Jay Hall - University of Texas

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- \_\_\_\_\_ Signal flares
- \_\_\_\_\_ First aid kit containing injection needles
- \_\_\_\_\_ Solar-powered FM receiver-transmitter.

### Scoring Key

Listed below are the correct rankings for the 'Lost on the Moon' items, along with the reasons for the rankings provided by the NASA's space-survival unit.

- |  |  |
|--|--|
| (15) Box of matches                            | Little or no use on moon   |
| (4) Food concentrate                           | Supply daily food required   |
| (6) 50 feet of nylon rope                      | Useful in tying injured, help in climbing                            |
| (8) Parachute Silk                             | Shelter against sun's rays   |
| (13) Portable heating unit                     | Useful only if party landed on dark side                             |
| (11) Two .45 calibre pistols                   | Self-propulsion devices could be made from them                      |
| (12) One case dehydrated milk                  | Food, mixed with water for drinking                                  |
| (1) Two 100-pound tanks of oxygen              | Fills respiration requirement  |
| (3) Stellar map of the moons                   | One of principal means of finding directions                         |
| (9) Life raft                                  | CO bottles for self-propulsion across chasms, etc.                   |
| (14) Magnetic compass                          | Probably no magnetized poles; thus useless                           |
| (2) 5 gallons of water                         | Replenishes loss by sweating, etc.                                   |
| (10) Signal flare                              | Distress call within line of sight                                   |
| (7) First-aid kit containing injection needles | Oral pills or injection medicine valuable                            |
| (5) Solar-powered FM receiver-transmitter      | Distress signal transmitter, possible communication with mother ship |

## MOTIONATIONAL BEHAVIOR

Often times, students are not cognizant of the fact that the process of education is an interdependent activity. Continually the knowledge that students acquire in one class is not applied in another class. The failure to relate subjects may lie with the teachers who do not make the students aware that school subjects are related. One of the purposes of this project is an attempt to create an awareness in the students to the relevancy of subjects to each other.

Primarily the project was created that would correlate the practical application of a science with the conceptual attitudes of an art. The behavioral project can apply to both Biology and English because it employs the tangible aspects of the nervous system in animals or human and the abstract concept of the psychological reactions of humans to certain stimuli.

By comparing the reactions of a living nervous system in both animals and humans, the student can achieve a greater understanding of animal insights to instinct, conditioned reaction, and intelligence of human beings. Thus, with a study of the human being and his process of perceiving, learning and thinking it is hoped that students will obtain a greater awareness of themselves.

The question of conditioning also applies to industry. The worker is conditioned on his job to complete a task. There are many stimuli that influence his productivity. A worker who is aware of the factors influencing him can overcome the problems that may hinder his proficiency.

The result of the project is to create for the student greater awareness of himself. By doing this, it is hoped that there develops a more efficient worker and knowledgeable human being able to cope with the complexities of life.

## BEHAVIOR

### THE SENSES

- I. Knowledge comes through the Senses:
  - A. The senses work together.
  - B. Defects of the senses - knowledge.
  - C. The human senses are not as developed as the senses of some of the other animals.
  
- II. Sight:
  - A. Visual Activity
    1. Measurement
    2. Visual defects
      - a. Nearsightedness
      - b. Farsightedness
      - c. Astigmatism
  - B. Color Vision
    1. Color blindness -the Ishihara Test
    2. Psychological Associations Test.
      - a. Total color blindness
      - b. see yellows, blue, but not red or green.
  
- III. Hearing - Deafness
  
- IV. Touch:
  - A. Pain
  - B. Pressure
  - C. Cold - warmth
  
- V. Smell
  
- VI. Taste:
  - A. Bitter
  - B. Sweet
  - C. Sour
  - D. Salt



ASSOCIATION TEST

Choose from the following colors the one you would associate with each of the mood tones listed below:

Yellow, Orange, Red, Purple, Brown, Blue, Black, Green:

(most frequently named colors)

- |                          |                        |
|--------------------------|------------------------|
| 1. exciting, stimulating | <u>(Red, yellow)</u>   |
| 2. secure, comfortable   | <u>(Blue, Brown)</u>   |
| 3. distressed, upset     | <u>(Orange, black)</u> |
| 4. tender, soothing      | <u>(Blue, Green)</u>   |
| 5. protective, defenging | <u>(Red, Brown)</u>    |
| 6. unhappy, dejected     | <u>(Black, Brown)</u>  |
| 7. calm, peaceful        | <u>(Blue, Green)</u>   |
| 8. dignified, stately    | <u>(Purple, Black)</u> |
| 9. cheerful, joyful      | <u>(Yellow, Red)</u>   |
| 10. defiant, hostile     | <u>(Red, Orange)</u>   |
| 11. powerful, strong     | <u>(Black, Red)</u>    |

## PERCEPTION

- I. Definition
  - A. Sensations aroused by stimuli
  - B. Past experiences
- II. Factors determining what we perceive
  - A. Characteristics of stimulus object
    - 1. nearness
    - 2. likeness
    - 3. inclusiveness
    - 4. part - whole relationship
  - B. Characteristics of perceiver
    - 1. Organic condition
    - 2. Personal adjustment and needs
    - 3. Sex differences
  - C. Social factors
- III. Space Perception
  - A. Physical objects in space
    - 1. Depth and distance with one eye
    - 2. Depth and distance with two eyes
  - B. Perception of motion
    - 1. Relative motion
    - 2. radial motion
- IV. Sound in Space
  - A. Perceiving the direction of sounds
  - B. Perceiving the distance of sounds.
- V. Factors Affecting Time Perception
  - A. Age and intelligence
  - B. Activity
  - C. Motivation
  - D. Hypnotism

## DEFINING AND MEASURING LEARNING

- I. What is learning? - A process which brings about a change in the individual's way of responding as a result of practice or other experience
- II. Study of learning
  - A. Conditioning
    - 1. Classical conditioning - Pavlov's Dog
    - 2. Instrumental conditioning - Skinner Box
- III. Capacity to learn
  - A. Physiological limit
  - B. Learning capacity
  - C. Memory

## LEARNING AND FORGETTING

### I. Factors in Effective learning

- A. Intent to learn
- B. Reward in punishment
- C. Extrinsic and intrinsic motivation
- D. Long term goals and interests
- E. Influence of stress
- F. Group participation of learning

### II. Characteristics of Material to be Learned

- A. Amount
- B. Familiarity
- C. Meaningfulness

### III. Forgetting

- A. Curve of forgetting
- B. Intervening Activity
- C. Meaningfulness
- D. Review

MOEEL LESSON PLAN  
PROJECTION

- I. Theory - Misunderstandings arise when we project our feelings to others. We are projecting our feelings when we speak or act as if our inside feelings were real things in the outside world.
- II. Experiments
- A. Construct some ink blots on paper. Have the class tell what they see. Show the students how these are mere ink stains on a paper, but that individuals project their feelings on the paper.
  - B. Have five volunteers help with this experiment. Send four of the five out of the room. Show the other volunteer a picture and have him describe it to the class. Then have this first volunteer relate what he saw to the second volunteer. This continues until all five have been involved. Let the class discuss what happened to the story as it passed from person to person. Show them what each volunteer thought about the picture may not have been correct.
- III. Evidence
- A. What happens when a motorist behind you honks his horn when you're stopped for a red light? Usually you think the worst of that motorist, but there may be a number of reasons for this honking. What you are doing are projecting your feelings.
  - B. What happens with a teacher when he finds that you are not doing your homework? Usually the teacher projects his feelings as to the reasons for this disobedience.
  - C. What happens when you see a harmless snake?
- IV. Conclusion - Our impressions are in us and are not always to be found in real life.
- V. Why should we guard against projecting our feelings?
- A. Fear
  - B. Hate
  - C. Suspicion
  - D. Prejudice

## Defense Mechanism

- I. Definition - Maintaining a sense of personal worth by re-  
resorting to behavior that guards some aspect  
of the personality from scrutiny by others  
or by one's self.
- II. Withdrawal Reactions
  - A. Fantasy - satisfying thwarted wishes
  - B. Nomadism - the wanderer
  - C. Regression - the good old days
  - D. Repression - forgetting
- III. Agressive Reactions
  - A. Displaced agression - blowing off steam
    1. scapegoating - blame someone else for your inade-  
quacy.
    2. free-floating anger - blame anyone.
    3. suicide - turn upon self
  - B. Identification - imitation
  - C. Projection - other people have same thoughts
  - D. Controlling Aggressiveness
    1. punishment - law enforcement
    2. controlled expression - socially acceptable hos-  
tility
- IV. Compromise Reactions
  - A. Sublimination and Substitution
  - B. Compensation and Overcompensation
  - C. Intellectualization
    1. excuse-making
    2. isolation
    3. undoing

## Novels

### I. The Road to Maturity

- A. When Legends Die - Paul Morland (Average)
- B. The Outsiders - S. E. Hinton (Average)
- C. To Kill A Mockingbird - Harper Lee (Average)
- D. Shane - Jack Schaefer (Easy)
  1. What qualities are exhibited by people who have achieved manhood?
  2. What actions of people are considered weak and what actions are considered strength.
  3. What makes a person courageous or a coward?
  4. What is the difference between love and friendship?
  5. Why are some people compassionate and understanding and others not?
  6. How can people attempt to understand one another?
  7. What causes prejudice and how can it be overcome?
  8. What causes alienation of young people to their society?
  9. How can young people go about searching for their identity and how can they find themselves?
  10. What conflicts do young people have with themselves or with other people?
  11. How do people react to hypocrisy?
  12. What type of relationship should be developed between a teenage boy and girl?

### II. Youth in a Historical Perspective

- A. April Morning - Howard Fast (Average)
- B. Johnny Tremain - Esther Forbes (Average)
- C. Across Five Aprils - Irene Hunt (Easy)
- D. The Light in the Forest - Conrad Richter (Average)

1. How does a person mature?
2. Why are the boys in these stories rebellious?
3. How important is religion to a young person?
4. Has young peoples' feelings toward our country changed in the last 200 years?
5. Compare the vocational and educational goals of yesterday's youth to the similar goals of today's youth.
6. How has child rearing changed through the generations?
7. What enables people to belong someplace?
8. How have family relationships changed in the last 200 years?
9. Discuss the adolescent love patterns between characters in the novels and today's youth?

### III. Cars

- A. Crash Club - Henry Gregor Felsen (Easy)
- B. Hot Rod - Henry Gregor Felsen (Easy)
- C. Road Rocket - Henry Gregor Felsen (Easy)
- D. Sheet Rod - Henry Gregor Felsen (Easy)
- E. Bucket of Thunderbolts - Gene Olsen (Easy)

1. What type of relationships should be developed between children and parents? Children and friends?
2. Is the time and money spent on cars worth it? Why?
3. How logical is it to spend the majority of your free time in working to support a car?
4. How important is winning or being best?
5. What is wrong with losing?
6. Are teenagers really interested in preventing car accidents?
7. How should we react to challenges?
8. How important is it to have goals?
9. What long and short range goals do people have?

10. What responsibility does each individual person have for safe driving?
11. How important is pride? Following the crowd? Fads?

Guide Question for Leaders of Group Discussion

1. Where, how, and with whom does the novel begin?
2. Does the beginning of the novel adequately prepare you for the rest of the novel?
3. Is the setting very important to the novel or could it happen anytime, anyplace, or anywhere?
4. From whose point of view is the story told?
5. How does this influence the story?
6. What is the main conflict of the book?
7. How is the conflict resolved, if it is resolved?
8. What important decision was made in the novel? Why was it made?
9. Who are the main characters?
10. What are the relationships between the main characters?
11. Are there any unusual characters in the story?
12. Fully describe two characters.
13. How and why did any character in the novel change?
14. Did you admire or dislike any character in particular? Why?
15. What is the theme of the novel?
16. Can this theme be applied to everyday life? How or why not?
17. How does the theme of this novel fit in with the theme of the other novels the class has read?
18. How are the main characters in the story like you in any way? If not, how do they differ from you?
19. What aspect of the novel inspired you? Why?
20. Apply the situation or events in the novel to everyday life.
21. Explain why you like or disliked the book. Back up your opinion with information from the book.



### Possible Composition Topics for Book Reports

1. What is the main problem in the novel and how is it overcome?
2. What obstacles is the main character confronted with and how does he overcome them or how is he overcome by them?
3. Tell about an unusual character and why he is unusual.
4. Can you see yourself in this book as any of the characters? How and why?
5. Tell how a character changed and why?
6. Discuss values, motives, philosophy, emotion, action of any character.
7. Explain how one character was misunderstood by another.
8. Discuss an important decision made in the book and the significance of this decision to the character.
9. Compare this book with a similar book you have read this year. Discuss similar themes, characters, problems, settings, and plots.
10. What is the theme of the book and why have you chosen it as your theme?
11. Explain why you liked or disliked the book. Your opinion must be backed up by stating some examples from the book.
12. How and why did the book change your thinking?
13. What information did you learn from this book and how can you use it?
14. What did you learn about different societies? How was it different and similar from your society?
15. What did you learn about yourself from this book? Think about your emotions, actions, ideas, values, motives.

### Short Stories

1. Take three of the stories you have read and compare the authors' or author's methods of presenting the stories - (trick endings, humor, description, themes, plots, settings, or characters.)
2. Compare the main characters in two or three stories (physical appearances, reactions, discussions, emotions, actions, ideas, values, or motives).
3. Do you like reading short stories (a whole book of them) better than a novel? Tell why or why not using examples from some of the stories.

Model Lesson Plan On The Novel:

The Light In The Forest by Conrad Richter.

I. Aims:

- A. To introduce a modern American novel to pupils
- B. To discuss problems of growing up
- C. To become aware of a historical period in U.S. development
- D. To discuss problems of prejudice

II. Motivation

- A. Play & discuss the song from South Pacific, "Carefully Taught"
- B. Discuss the quotation of Scott Finch in To Kill A Mockingbird that in order to know a person, "You've got to walk around in his skin."
- C. Have maps showing geography of Middle Atlantic States and Indian Tribes
- D. Discuss the problems that a teenage boy meets in adjusting to his environment.

III. Procedure

- A. How is the author's philosophy reflected in the treatment of whites and Indians in the book?
- B. In what way is True Son's idea of the Indians immature?
- C. Why didn't the Indian captives wish to return to the white civilization?
- D. Why did Cuyloga send Half Arrow with a message to True Son?
- E. Was it right for the white parents to assume that their children, although gone more than ten years, would want to leave the Indians?
- F. What are the different reactions of Del Hardy and True Son when they see the Fort Fitt area?
- G. Why are the reactions of the two boys different?
- H. What does the Foshtank Story tell of the white man?

- I. Discuss the question, "though dogs may fight against themselves, they are one against the wolf," from the points of view of the whites and the Indians
- J. Were the Indians Pagans?
- K. Why wasn't Cuyloga chosen as a guide for the war party?
- L. What is True Son's reaction when he sees that the war party has some children's scalps?
- M. Why did True Son save the boat of white people?
- N. What will happen to True Son as he walks away from his father at the end of the novel?

#### IV. Novel into Film

- A. What parts of the film differ from the novel?
- B. Why are some characters added in the film and some omitted?
- C. Do the film actors look the way you think the book characters should look? Why?
- D. Are the characters changed between the novel and film?
- E. Does the film or the novel tell a better story?
- F. Which medium has a better ending?
- G. How do the points of view differ between novel and film?
- H. What problems may have been encountered in filming the novel?
- I. Should the film always be true to the novel?
- J. Could the film have been done in black and white just as effectively?

POETRY ABOUT INFIRMITY

I. When I was One-and-Twenty - A. S. Housman

When I was one-and-twenty  
I heard a wise man say,  
"Give crowns and pounds and guineas  
But not your heart away;  
Give pearls away and rubies  
But keep your fancy free."  
But I was one-and-twenty,  
No use to talk to me.

When I was one-and-twenty  
I heard him say again,  
"The heart out of the bosom  
Was never given in vain;  
'Tis paid with sighs a-plenty  
And sold for endless rue."  
And I am two-and-twenty,  
And oh, 'tis true, 'tis true.

II. The Road Not Taken - Robert Frost

Two roads diverged in a yellow wood,  
And sorry I could not travel both  
And be one traveler, long I stood  
And looked down one as far as I could  
To where it bent in the undergrowth;

Then took the other, as just as fair,  
And having perhaps the better claim,  
Because it was grassy and wanted wear;  
Though as for that the passing there  
Had worn them really about the same,

and both that morning equally lay  
In leaves no step had trodden black.  
Oh, I kept the first for another day!  
Yet knowing how way leads on to way,  
I doubted if I should ever come back.

I shall be telling this with a sigh  
Somewhere ages and ages hence:  
Two roads diverged in a wood, and I -  
I took the one less traveled by,  
and that has made all the difference.

III. Crabbed Age and Youth - William Shakespeare

Crabbed age and youth cannot live together;  
Youth is full of pleasure, age is full of care;  
Youth like summer morn, age like winter weather;  
Youth like summer brave, age like winter bare.  
Youth is full of sport, age's breath is short;  
Youth is nimble, age is lame;  
Youth is hot and bold, age is weak and cold;  
Youth is wild, and age is tame.  
Age, I do abhor thee; youth, I do adore thee;  
O, my love, my love is young!  
Age, I do defy thee: O, sweet chepherd, hie thee,  
For methinks thou stay'st too long.

IV. If - Rudyard Kipling

If you can keep your head when all about you  
Are losing theirs and blaming it on you,  
If you can trust yourself when all men doubt you,  
But make allowance for their doubting too;  
If you can wait and not be tired by waiting,  
Or being lied about, don't deal in lies,  
Or being hated don't give way to hating,  
And yet don't look too good, nor talk too wise:

If you can dream - and not make dreams your master;  
If you can think - and not make thoughts your aim,  
If you can meet with Triumph and Disaster  
And treat those two impostors just the same;  
If you can bear to hear the truth you've spoken  
Twisted by knaves to make a trap for fools,  
Or watch the things you gave your life to, broken  
And stoop and build'em up with worn-out tools:

If you can make one heap of all your winnings;  
And risk it on one turn of pitch-and-toss,  
And lose, and start again at your beginnings  
And never breathe a word about your loss;  
If you can force your heart and nerve and sinew  
To serve your turn long after they are gone  
And so hold on when there is nothing in you  
Except the Will which says to them: "Hold on!"

If you can talk with crowds and keep your virtue,  
Or walk with Kings - nor lose the common touch,  
If neither foes nor loving friends can hurt you,  
If all men count with you, but none too much;  
If you can fill the unforgiving minute  
With sixty seconds' worth of distance run,  
Yours is the Earth and everything that's in it,  
And - which is more - you'll be a man, my son!

V. Lament of a Man for His Son - Mary Austin

Son, my son!

I will go up to the mountain  
And there I will light a fire  
To the feet of my son's spirit,  
And there will I lament him;  
Saying  
"O my son,  
What is my life to me, now that you are departed!"

Son, my son,  
In the deep earth  
We softly laid thee in a chief's robe,  
In a warrior's gear.  
Surely there,  
In the spirit land  
Thy deeds attend thee!  
Surely,  
The corn comes to ear again!

But I, here,  
I am the stalk that the seed-gatherers  
Descrying empty, afar, left standing.  
Son, my son!  
What is my life to me, now you are departed?

VI. Letter to Son - Langston Hughes

Well, son, I'll tell you:  
Life for me ain't been no crystal stair.  
It's had tacks in it,  
And splinters,  
And boards torn up,  
And places with no carpet on the floor -

Lare all the time  
I'se been a-climbin' on,  
And reachin' landin's,  
And turnin' corners  
And sometimes goin' in the dark;  
When there ain't no light.

So, boy, don't you turn back,  
Don't you set down on the steps  
'Cause you find it's kinder hard.  
Don't you fall now -  
For I'se still goin', honey,  
I'se still climbin',  
And life for me ain't been no crystal stair.



### Projects

- 1.a. Have students cut out pictures from newspapers and magazines which they feel would be a portrait of their ideas and feelings.
- b. Have a student's friend cut out pictures from newspapers and magazines which the friend feels is a portrait of the student.
- c. Compare the two projects.
- 2.a. Have student make a photo of himself showing people his interests.
- b. Have student make a photo essay of himself, but he cannot be in any picture.
3. Have student make a list of his likes and dislikes - compare lists of all members of the class (singers, songs, colors, comic strips, books, movies, television show, political figures, hobbies, sports, school subjects, foods and drinks, cars, magazines, newspapers, etc.)
4. Students are to make a montage of their feelings on any topic (America, school, teachers, parents, television, athletics, patriotism, religion, cars, wealthy people, the poor).
5. Conduct a research project on cars. Find out why people choose to buy particular cars - (Cars: year, make, model, style, color engine, price, - People: education, vocations, salary, residence, size of families, age, personality).
6. Have a "Student-of-the-week" bulletin board display. Everyone contributes information on one student.
7. Have students construct criteria for evaluating personality.
8. With the science department, conduct a motivational behavior experiment using a mouse.

## UNIT THREE

### Photography - A slice of Life

- I. The Equipment
- II. Student Projects
- III. Literature - Street Scene
- IV. Photography as a Career
- V. Bibliography and Suggested Reading List

Attempting to get students to be specific and write using details is the bane of composition teachers. Many people, especially students, find it difficult to write using specifics and English teachers spend years attempting to solve this problem. Furthermore, the problem is aggravated when students weak in verbal skills, experience frustration when they cannot successfully meet the written demands of college-oriented English courses.

It is hoped that by putting a camera into the hands of a student, it will force him to be specific. When he looks through the viewfinder, he must be exact; he must examine; he must focus; he must see the real world as the camera does. In addition, the self-expression allowed by the camera, like the self-expression allowed by compositions, enables the instructor to gain an insight and understanding of the student which would otherwise be denied the teacher.

The literature section presents a similar idea to the overall philosophy. A verbal photograph of the students' world is presented and students may analyze themselves by discussing the novels and teaching the instructor many things about the teenage life style and living conditions.



Finally, the world of photography is explored as a career. This field is not an endeavor with which students are familiar and may provide possibilities for future careers.

## I. Materials

### 1. Camera Categories

- a. Present Cameras - Box or simple cameras with a minimum of adjustments.
- b. Twin-lens Reflex - Camera uses 2 1/4" rollfilm and has two lenses, one for viewing and one for taking.
- c. 35 mm Camera - Miniature cameras using 35 mm roll film.
- d. Smaller Cameras - There are a variety of cameras that are pocket size and use 16 or 18 mm film.
- e. Professional Cameras - Cameras larger than 35 mm designed for specialized use.

### 2. Camera Parts A Student Should Know

- |                             |                        |
|-----------------------------|------------------------|
| a. Film exposure counter    | o. Tripod load socket  |
| b. Shutter release          | p. Film pressure plate |
| c. Shutter-speed dial       | q. Film take up spool  |
| d. Film advance lever       | r. Rewind button       |
| e. Diaphragm ring (f-stops) |                        |
| f. Depth of field scale     |                        |
| g. Distance scale           |                        |
| h. Focusing ring            |                        |
| i. Lens                     |                        |
| j. Rewind knob              |                        |
| k. Flash terminal           |                        |
| l. Back lock                |                        |
| m. View Finder              |                        |
| n. Film chamber             |                        |

### 3. Comparison of the Eye and the Camera

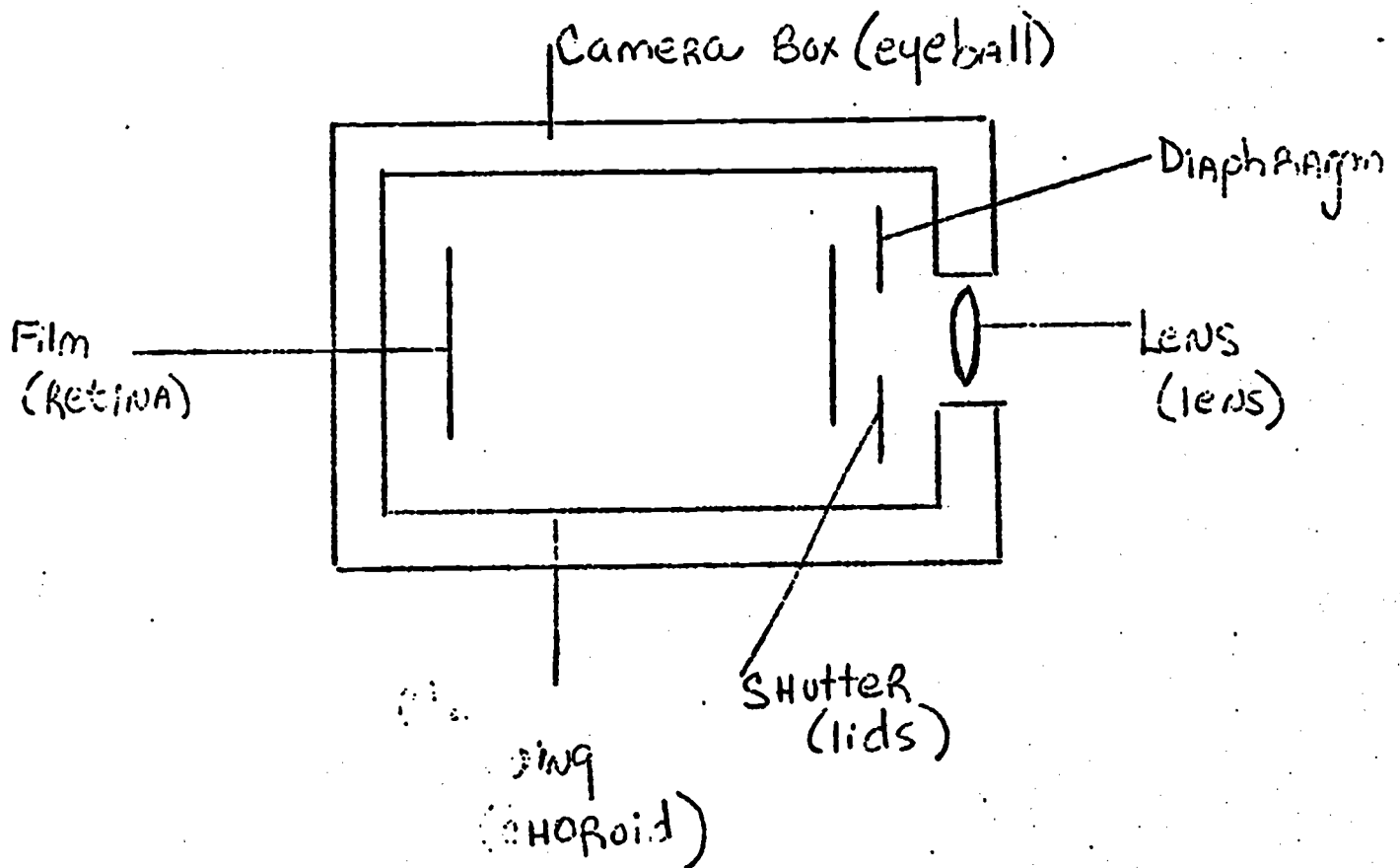
#### Part of the Eye

Eyeball  
 Lens  
 Lids  
 Iris  
 Pupil  
 Lens Muscles  
 Pigment of choroid  
 Retina

corresponds to  
 corresponds to  
 corresponds to  
 corresponds to  
 corresponds to  
 corresponds to  
 corresponds to

#### Part of the Camera

Camera box  
 Lens  
 Shutter  
 Stops or Diaphragm  
 Lens opening  
 Focus Devices  
 Black Lining  
 Plate or Film



### B. Film

1. Color sensitivity - Only panchromatic emulsions are of much interest to the average photographer because of their versatility, pleasing normal color values and adaptability to a long range of color values.
2. Speed - This is the films' built in sensitivity to light. High A.S.A. numbers require less light than lower ones.
3. Contrast - The degree to which a film is capable of recording closely related tones in graduations of black and white is called contrast.
4. Latitude - The films' ability to record differences in brightness as differences in negative densities.
5. Grain - The usual texture of a film. Speed is the main factor affecting grain.

### C. Lighting

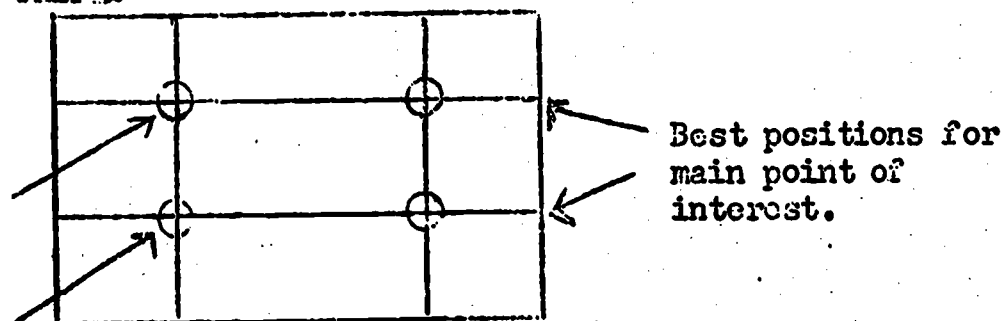
1. Frontlight - When properly set up, this type of lighting casts the least amount of shadows. Shadows usually fall behind the subject.
2. Sidelight - With the light directed at the subject from its side, the side closest to the light is strongly illuminated.
3. Toplight - Similar to sidelight in effect, except that shadows cast by the subject's features go in a downward direction.
4. Underlight - Shadows are cast in an upward direction. Sometimes called dramatic or horror lighting.

5. **Backlight** - This is lighting behind the subject, and causes the subject to be in its own shadow when facing the camera. The resulting photo would normally be a silhouette, with perhaps a rim of light around the outline of the subject.

#### D. Composition

1. **Main Interest** - If nothing draws attention in a picture, the eye tends to wander all over the scene. The point of interest should be the focus of everything contained in the scene.

2. **Rule of Thirds**



3. **Camera View Point** - Choose the best camera position to show depth and balance.
4. **Leading Lines** - Choose objects or a series of objects to draw attention to the main interest.
5. **Horizontal Lines** - These tend to suggest tranquility and repose more often than other lines.
6. **Vertical lines** - These lines are used to denote dignity and strength.
7. **Curving Lines** - Show grace and flow of movement.
8. **Balance** - We consciously or unconsciously assign weights to objects that make up a composition. A balance of composition, therefore, refers to a picture in which all parts in opposing areas appear to be of equal weight.
9. **Selective Focus** - By choosing your exposure for a relatively shallow depth of field and focusing narrowly on the main point of interest, you can subordinate background and give prominence to the main point of interest.

10. Cropping - Often a photograph can be improved by reframing. This involves cutting away areas that are of no value to the composition.

## E. Film Processing

### 1. Basic Equipment

- a. Trays, timer, 8 x 10
- b. Graduate, or pitcher
- c. Thermometer
- d. Tongs
- e. Stirrers
- f. Spring clips
- g. Funnel
- h. Timer
- i. Safelight
- j. Rollfilm tank
- k. Printer and/or enlarger

### 2. Procedure

- a. Read instructions
- b. Insert film into lightproof tank. This is the only step requiring total darkness.
- c. Fill tank with cool water, shake gently, pour off water.
- d. Pour developer into tank.
- e. Set timer for six minutes (check directions), which is full development - no danger of overdevelopment.
- f. Agitate tank gently at about half-minute intervals.
- g. Pour developer into graduate.

- h. Wash film for five minutes or longer by removing lid and placing tank with film under cool running water, with intermittent agitation.
- i. Hang film to dry.
- j. Pour developer into stock bottle; note on label amount of film processed.

## II. Related Student Projects

- A. Find a picture in a magazine or newspaper that tells a story; relate the story to the class orally or in writing.
- B. Collect a series of pictures that have to do with a single event and arrange that in a story telling sequence.
- C. Limit the student to five photographs. Have him relate a humorous situation through photography.
- C. Take a single picture that conveys an idea. Have other students write about the picture, seeing if they have gotten the idea intended by the photographer.
- E. Attempt to illustrate a short story or poem through photography.
- F. Using slides, record the highlights of a field trip. Present a slide show to another class using a narrative tape.
- G. Take a picture that expresses you. (You do not have to include yourself in the photo.) Have students write about you after they view the photograph.
- H. Find a picture that creates a particular mood. Attempt to express that mood orally or in writing.
- I. Make a series of slides that convey a single idea. Arrange them and add narrative or music.
- J. Advertise a product using photography.
- K. Design and prepare a picture newspaper.
- L. Have a professional photographer come speak to the class concerning a future in photography.
- M. Plan a field trip to a school photography or a photo-lab where the students can observe darkroom techniques and other photographic skills.

- N. Assign photographic essays on topics similar to the following:
1. Living conditions in a particular neighborhood.
  2. Problems faced by teen-agers in a high school.
  3. Conservation
  4. Growing up.
- O. Arrange to have students photograph a variety of different occupations and prepare a weekly bulletin board based on these various occupations. Each week students can feature a different type of work.
1. Manual labor
  2. Office Work
  3. Automotive industry
  4. Artistic work
  5. Public services
  6. Human relations
  7. Assembly line work
  8. Skills involving detail
- P. Submit student photographs to various work journals for publication.
- Q. Have students prepare a booklet giving personal views of various occupations. Use photographs to illustrate the ideas that they are attempting to convey.
- R. Prepare a photography exhibit to be presented to other classes. This will involve mounting and framing student's work.
- S. Attempt to photograph a familiar object from an unusual point of view.



## NOVELS - Photographs of Life

### I. Street Scene

- A. Blackboard Jungle by Evan Hunter (Average)
- B. Two Blocks Apart by Charlotte Mayerson (Average)
- C. Lions in the Way by Bella Rodman (Easy)
- D. Catcher in the Rye by J.D. Salinger (Advanced)
- E. The Cross and the Switchblade by The Rev. David Wilkenson (Easy)
  1. How do race, color, national origin, economic level, and environment influence the way a person is raised, and his future chances for success?
  2. What effect does prejudice of any sort have on an individual?
  3. Why must some groups resort to activism in order to be heard?
  4. What problems arise from stereotyping individuals?
  5. Do you notice any stereotyping of individual by the authors of the novels.
  6. How do people react to suffering?
  7. Where, and when is understanding shown in life?
  8. Don't all people want to succeed? Why don't they?
  9. What types of people can be and can not be trusted?
  10. What problem do teenagers have?
  11. What sex is able to adjust to life better, male or female? why?
  12. How important is education?
  13. Why do some teenagers deny themselves the right to an education?
  14. Can teenagers expect fairness and understanding from teachers and schools?
  15. What help has been rendered in recent years by governments to teenagers?
  16. Where can teenagers go for assistance in problem solving?

## PHOTOGRAPHY AS A CAREER

### Opportunities

There are opportunities in photography for the artistically inclined, the business minded, the technician, the engineer, the craftsman, and the journalist. There are opportunities for the person who wants to "be on the move," and there are opportunities for those who prefer the quiet laboratory and precise, painstaking craftsmanship.

It is a field in which knowledge, industry, and initiative pay off. Time-serving on the job to acquire seniority, as in much industrial employment and the unionized trades, is of minor importance in photography.

In some fields you have your own business. You are a professional man and your relations with your clients are similar to those of a lawyer, doctor, architect, tax accountant or banker.

Yes, photography has much to offer as a career; there are so many different applications of photography that anyone can find a position that is both enjoyable and rewarding. Anyone, that is, who is willing to work hard to succeed, for photography is no snap. You must be prepared to study hard and to apply yourself diligently. If you are not willing to do this, if you want to "take it easy" and look for a more routine occupation.

### Portrait Photography'

Portrait photographers outnumber all others and while competition is keen there is still a demand for professionally-made portraits. As long as people graduate from high school and college, marry, have children, move away from home and loved ones, there will be a place for portrait photography. The portrait photographer can make a comfortable living and is usually active in and respected by his community. For his work to rise above the common level he should have a good education, be vitally interested in people, be imaginative and inventive. If he is this, and in addition, is a good businessman--or has the foresight to ally himself with a good businessman--he may do exceptionally well financially. The owner of the portrait studio has the satisfaction of having his own business. To many, this is more important than a monthly pay check of a known amount.

## Commercial Photography

The commercial photographer photographs buildings, interiors, groups, banquets, conventions, store windows, manufactured articles, construction, material for catalogs and many other items and situations. His work is complicated - almost every job is different - and he must continually draw on his knowledge and experience.

Unlike portrait photography, the commercial studio often operates on a large scale, employing at least several photographers as well as photographic technicians, artists, and layout designers. The photographers are specialists who do much of their work away from the studio. The possibilities of specializing are almost unlimited, but to become an expert in his field, he must have a thorough knowledge of subjects, such as architecture, furniture, clothing, glassware, foods, livestock, leather goods and plants.

More and more of the work of the commercial photographer is used for advertising illustration in catalogs, house organs, trade journals, folders and magazines. Vast sums of money are involved in magazine photography. The photographer works through art directors who are often fussy and difficult to satisfy. Advertising photography requires long hours of hard work under high pressure to meet deadlines, a high degree of initiative, resourcefulness and imagination and a determination to work up to becoming a full-fledged advertising illustrator.

## In-Plant Photography

More and more large companies are setting up their own photographic departments. For example, the General Motors Photographic Department has about 1000 employees. Industrial photographic departments with 20 to 30 employees are common. There are many places where a young man has a chance to "get in on the ground floor" and build up a sizable photographic department. Not only are there opportunities with manufacturing concerns, but department stores, large banks and insurance companies, mail order houses, government agencies and installation, libraries, museums and law enforcement agencies offer the competent and versatile photographer a chance to run a department in a business-like manner.

## Photojournalism

The newspaper photographer sees history in the making; he meets important people and he is constantly on the move. He must have a "nose for news," be ever on the alert, resourceful and be able to keep his wits regardless of the circumstances in which he finds himself.

In addition to news stories there are feature photographs for the fashion pages, illustrations for the Sunday Supplement, and picture stories of local industries which require considerable planning and creative thinking. Nearly all press photographers on the larger papers belong to the Newspaper Guild. This guild regulates the conditions of employment and minimum salaries of photographers. After the initial trial period of six months, the photographer whose work is satisfactory is placed on the staff. As a member of the staff, his salary must at least equal the rate established by the Guild. This rate increases annually for six years, depending upon rates for the city in which the paper is located. Many newspapers, to attract the best photographers available, pay more than the minimums established by the Guild.

## Research and Development

Positions in research and development are, in general, open only to graduate chemists, chemical engineers and physicists. However, men with a good background in the materials and processes of photography are required as technical representative to provide technical service to the user, as sales representatives and technical correspondents.

## Design and Manufacture

The design and manufacture of cameras, lenses and other photographic equipment requires men and women with a background of mechanical engineering and instrumentation rather than photography. In the manufacture of film and paper, a knowledge of chemistry, physics and photographic technology is necessary so there is little need for photographers as such. There are opportunities, however, for those with a background in photographic science.



## Photographic Engineering

A relatively new branch of photography is photographic engineering; that is the use of photography to solve problems in science and engineering. Photography in these areas is increasing both in variety and importance. No guided missile or artificial satellite leaves the ground without an extensive program of photography. Our scientific progress in this age of nuclear fusion and fission - this age of outer space - is going to require more and more photography, and the photographic engineer working with other scientists and engineers has a vital role to play in scientific progress. Obviously, to qualify for these positions one must be an engineer with a thorough photographic science background.

## Photofinishing

Photofinishing is a big business; plants with 40 or 50 employees are numerous and many have over 100. There is a constant demand for production managers, supervisors, etc. Their positions involve both management ability and a thorough knowledge of photographic materials and processes. The number of such openings is increasing as color photography becomes more widespread.

## Sales

For those young men interested in sales, there are positions open in the photographic field in retail stores (camera shops), in wholesaling and for manufacturers. Photographic equipment and supplies must move from the manufacturer to the user, and skilled salesmen are required to do this job. Also, there are sales positions open in commercial studios. Many potential clients must be contacted and sold on the many uses of photography in their business.

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4. Hattersley, Ralph, "Ideas for Pictures; Beg, Borrow or Steal," Popular Photography's Invitation to Photography, (1969) 44-54.
5. Vental, David, "Photography's Words," 35mm Photography, (1969) 166-129.
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Suggested Readings - Student List

Beginners Books -

An Introduction to Photography, George Wakefield, \$3.95.

Basic Photography, Marvin Weishord, \$1.95

Better Photography for Amateurs, D.K. Fenten, \$1.95

Common Sense Photography, \$3.95

Getting Started in Photography, Les Barry, \$1.95

How to Make Better Pictures in Your Home, Herbert Keppler, \$2.95.

Introductions to Photography, R.B. Rhode and F.A. McCall, \$6.50

The New Photographer, Carlton Wallace, \$3.95

Photography, Carlton Wallace, \$4.95

Photography from A to Z, Dan Daniels, \$1.95

Self Teaching All Camera Photography, Kenneth S. Tydings, \$1.95

Developing, Printing and Enlarging -

The Complete Art of Printing and Enlarging, O.R. Croy, \$9.95

Do Your Own Film Processing, L.A. Mannheim, \$1.25

How to Develop Print and Enlarge Pictures, E.S. Epstein and D.W. Armand

Lootens on Photographic Enlarging and Print Quality, J.C. Lootens, \$7.95.

Photo Darkroom Guide, R.E. Hertzberg, \$1.95

Exposure -

Exposure - W.F. Berg, \$5.95

Exposure Meter Guide, Charles H. Coles, \$1.95

Guide to Perfect Exposure, G. and C. Wright, \$1.95

Successful Exposure, L.A. Mannheim, \$2.95

Lighting -

A.B.C.'s of Lighting, Lou Jacobs, Jr. \$2.95

Available Light Photography, H.M. Kinger, \$1.95

How to Take Living Indoor Pictures, K. Kersin and  
A.S. Reid, \$1.00

Lighting in Photography, Robert Simmons, \$1.95

Successful Flash Photography, L.A. Mannheim, \$2.95



UNIT FOUR  
Correlation Units

- I. Advertising and Packaging
- II. Reading and Textbook Exploration
- III. Vocabulary Study and Dict Work
- IV. Field Trips

A Major aspect of Industrial Prep English is correlation between the various subject areas. Most of the correlated units are grouped in this section. Each unit may be spread through various times of the year or may be used as a unit during a block time period. The English teacher makes the determination when the units are used based on what is being taught in other classes and what students bring up in class.

While the packaging unit of math class deals with the engineering of packages, the English class deals with this unit from the consumer viewpoint. Billions of dollars are spent each year for advertising in an attempt to seduce the consumer into spending his money. This unit attempts to protect the student and make him aware of the pitfalls which he may encounter in the competition for his spendable income.

Since much of school work demands reading, there is a special attempt here to build reading skills in the student to enable him to meet the reading demand of school and the adult world. Shop manuals and science and math pamphlets are used to supplement the reading that the student meets in other subject areas. In addition students are rotated through the High School Reading Laboratory with its reading

specialists.

For vocabulary to have any effect, it must be used within a meaningful atmosphere. Therefore, the unit devoted to vocabulary is done in cooperation with other subject areas and within the general reading demands of the curriculum.

Finally, our students claim that field trips add a great deal to their knowledge of the business and adult world. Therefore field trips are an integral part of the curriculum. The Sophomore Year trips tend to stress visits to factories and heavy industry. The Junior Year handles light and clean industry. Also it is geared to individual student visits to businesses of their choice. Finally, the Senior Year stresses field trips related to the arts and visits to technical and academic schools. It is hoped that through these trips the students will secure a better understanding about their future goals.

## Advertising & Packaging

### I. Advertising is constantly around us.-

- A. Let Hertz put you in the driver's seat.
- B. Us Tareyton smokers would rather fight than switch.
- C. Winston tastes good, like a cigarette should.
- D. Things go better with Coke.
- E. If it's Cott, it's Cott to be good.
- F. You have a friend at Chase Manhattan.
- G. You have a banker at Bankers Trust.
- H. Wheavies, The Breakfast of Champions.
- I. I'd walk a mile for a Camel.
- J. Miller High Life, The Champagne of Bottle Beer.
- K. Schaefer is the one beer to have when you're having more than one.
- L. You are in good hands with Allstate.
- M. Don't cook tonight, call Chicken Delight.
- N. When you're out of Schlitz, you're out of beer.
- O. Double your pleasure, double your fun, with Double-Mint, Double-Mint, Double-Mint gum.

## ADVERTISING & PACKAGING

### I. What is Advertising?

- A. Advertising tells people what product or service is being offered and where to get it.
- B. History
  - 1. Prior to 1456
    - a. Oral advertisements
    - b. Signs (barber pole - shoe - goat)
  - 2. The invention of the printing press
    - a. First advertisement on a door of a German Church - 1525
    - b. Newspaper advertising -- 1600
    - c. Paul Revere in the Boston Gazette

### II. Newspaper Advertising

- A. Purpose
  - 1. sell goods
  - 2. create a demand
  - 3. introduce new styles and new customs
  - 4. good will
  - 5. introduce new business
  - 6. keep name before the public
- B. Advantages of Advertising
  - 1. Helps business find customers
  - 2. Improves standard of living
  - 3. Lowers cost of products
  - 4. Helps improve products
  - 5. Saves the buyer time and trouble in shopping
  - 6. Supports radio, television, the press industries
- C. Disadvantages of advertising
  - 1. wasteful
  - 2. makes people buy things they do not need
  - 3. insults intelligence of people
  - 4. often presents false view of life.
  - 5. may be in bad taste
  - 6. causes poor quality of television programming
- D. What demands should be made of advertising?
  - 1. Honest
  - 2. Attractive
  - 3. Good Taste

### III. Propaganda

#### A. Testimonial

"Willie Mays says, "Eat Wheaties, the Breakfast of Champions." His knowledge of baseball does not make him an authority on nutrition.

#### B. Bandwagon

"Many families on your block own a Chevrolet. Why don't you?" Popularity does not produce quality in a product or mean that you should own one.

#### C. Plain Folks

"The family next door uses Maxwell House Coffee. Why don't you?" If it's good enough for your neighbors, it's good enough for you.

#### D. Name Calling

"Do not use that greasy kid stuff." No one wants to use that greasy cream on his hair.

#### E. Card Stacking

"After eating an onion the breath tasting machine registers high odor. After eating Clorets, the odor drops markedly." The truth is presented, but not the whole truth.

#### F. Glittering Generality

"The fastest, safest car on the road with the lowest price." Says everything but really means nothing.

#### G. Transfer of prestige to desired objects

"The U.S. Air Force uses Esso gasoline for all its planes. Why don't you?" The Air Force may not use the exact same gasoline for the same reason as the gasoline in your car.

#### IV. Suggested Activities

- A. Have the students create a pamphlet of the examples of the seven propagnada devices used by the Press.
- B. Students conduct a hypothetical campaign for two students who are running for a school office. Include pictures, posters, written material, and speeches.
- C. Students attempt to sell a product using advertising techniques.
- D. Bring in examples of new advertising slogans.
- E. Pick out political slogans, past and present, and analyze what they say.

#### V. Packaging

- A. Semantics of the Industry (Small, large, big, economy, giant)
- B. Philosophy effecting structure of package. (as a protector - ease of packing, stacking, storage, shipping, to prevent pilferage, to fit the shape of the contents.)
- C. Art Design (Shape, illusionary effect, colors, pictures, inventory.)
- D. Improvements in packaging - (no deposit bottles, plastics replacing glass, fliptop boxes, easy-open cans, space-saving and convenient carriers.)
- E. Written Contents on Packages
  1. Why listed? Where listed? How listed?
  2. Adding or subtracting ingredients.
  3. Variation in weight or size of product.
  4. Listing by weight or volume.

#### F. Quiet Shrinkage in Packaging Industry - Smaller size + Same Price = Inflation

Product	1965 Size	Size 1969
Pillsbury Pancake Mix	13 1/2 oz.	12oz.
Palmolive After Shave Lotion	5	4
Kraft Strawberry Preserves	12	10
Gulden's Mustard	6	5
Eosco Chocolate Strup	12	11
Halo Shampoo	7 1/2	6

#### VI. Suggested Activities

- A. Students are to bring in packages for one type of product and compare different packages used.
- B. Bring in examples of false packages.
- C. Bring in examples of different types of packages.
- D. Trip to packaging industry.
- E. Unit on packaging by all teachers.
- F. Have students make packages for products.

Reading -  
Development of Skills

I. Comprehension

A. Word Meanings

1. vocabulary exercises using contextual and structural clues.
2. words appealing to the senses
  - a. cold - (feeling)
  - b. rippled (sight)
  - c. bang (sound)
  - d. sweet (taste)
  - e. fragrant (smell)

B. Phrase Meanings

1. idiomatic language - "days of yore," "keep posed"
2. figurative language - "red tape," "bottleneck"

C. Sentence Meanings

1. pick out introductory, transitional and concluding sentences.
2. answer who, what, where, when, how or why

**D. Paragraph Meanings**

1. topic sentence
2. sentence which does not belong (unity)
3. details (substance)
  - a. outline
  - b. pick-out
  - c. show irrelevant details
4. chronology (coherence)

**E. Main Ideas**

1. choose a title
2. paraphrase

**F. Organization**

1. arrange a group of related pictures in order
2. outline a story
3. pick introductory, transitional, concluding sentences
4. choose key words

**II. Interpretative Reading**

- A. Purpose of author
- B. Comparing and assigning relationships



- C. Predicting results
- D. Seven propoganda techniques - (See page 5)
- E. Sterotyping, slogans, labels
- F. Use films or slides

### III. Preparation for Reading a Novel

- A. Motivation for reading -(See page 34 II for examples)
- B. Provide background information on book
- C. Preview - 1. read covers, 2. open to any page and skim (choosing reading material)
- D. Vocabulary - scan (specific searching) for unfamiliar words
- E. Read suspenseful part and have students predict outcome
- F. Assign reading for next day.
- G. Start book by orally reading opening part to students

### Iv. Reading in Mathmetics

- A. Know the meaning of all the words.
- B. What does the problem ask for?
- C. List what is given and what is needed.
- D. Translate verbal symbols into mathematical symbols.
- E. Read for relationships and translate these into an equation
- F. Know symbols and formulas

- G. Decide what mathematical processes are required
  - H. Analyze graphs, figures and illustrations
  - I. Make a drawing of the problem
  - J. Know all the symbols
- V. Reading for Learning
- A. Preview - Overall Picture
    - 1. title
    - 2. table of contents
    - 3. chapter titles
    - 4. chapter headings
    - 5. chapter summaries
    - 6. topic sentence in each paragraph
  - B. Questions
    - 1. ask questions before reading
    - 2. ask questions during reading
    - 3. try to answer as many questions as possible
  - C. Read
    - 1. Definite reason for reading
    - 2. focuss attention on the main points

3. pay attention to graphs, maps and charts
4. adjust reading rate to the purpose of the reading and the nature of the material.
5. seek answers to questions

D. State - Answer original questions

E. Test - recall

#### VI. Reading Non-Prose Materials

A. Consider Title

B. Determine what items, dates, places, persons, or accomplishments are being explained or compared.

C. Be able to interpret any accompanying legends

D. Look for any special symbols

E. Seek out specific information

F. Look for general trends and conclusions

G. If included with prose materials, what is the reason or purpose for the inclusion

## MODEL READING LESSON PLAN

The average student does not adequately know how to use his textbook. Many students wait for a teacher to give an assignment and go directly to the pages and start reading. Homework assignments can become more meaningful, if the textbooks are used adequately. It is the responsibility of the teacher as well as the student to see that full use is received of textbooks. Here is a means of helping other classroom teachers and students in getting more out of textbooks.

Students' textbook Modern Biology, by Moon, Otto and Towle - Holt, Rinehardt and Winston, N.Y. - 1960 - Chapter VI - p. 56 was used.

First have the students Preview the chapter and ask them to list the major or stressed parts of the chapter.

1. Introduction
2. Boldface Paragraph Headings
3. Boldface Italic type for New Words
4. Charts
5. Pictures
6. "In conclusion"
7. "Biologically Speaking" (Definitions located in glossary)
8. "Questions for Review"
9. "Applying Facts and Principles"

Secondly have students raise questions about key topics. They can find this in that part of the chapter called "Questions for Review." Next, emphasize that they are now ready to read the chapter. After the reading, ask them

to state some of the key points of the chapter. Finally ask them to Test themselves on the chapter.

What has happened is that by the mnemonic device PQRS they have learned a method of reading a chapter.

In order to further prepare them for a test, show them the chart that has been constructed on the next page. They will notice by checking the items that are mentioned and adding up the total checks, a good idea of what may be on a test can be discovered. It was found that eighty per cent of the items on the test that the Biology teacher gave came from the most-checked items on the chart that was constructed.

Students may complain that PQRS is time-consuming. Point out that this is no more time consuming than studying for a test and then complaining that they studied the "wrong things" and, that this method is only a way of showing them that there are very logical ways to study.

### KEY WORDS IN CHAPTER 6

Words Located in biologically speaking	Represented by a figure and/or picture	Located in questions at end of the chapter	Is a probable major topic
a monification			
balance of nature			
conservation			
decay			
denitrification			
erosion			
food chain			
natural energy			
nitrification			
nitrogen fixation			
oxygen carbon- dioxide cycle			
pollution			
predator			
Photosynthesis			
respiration			

**KEY WORDS IN CHAPTER 6**

Is <i>usually</i> located within a major topic	Number of checks	was on the objective test



## CHAPTER VI

### Biology Test Given by Biology Teacher

1. Predators are important in a biological society because they:  
a) form nitrates b) supply homes for birds and animals c) hold plants in check d) feed on other animals
2. Nitrates are lost from water-logged or poorly aerated soil during a destructive bacterial process known as:  
a) decay b) nitrogen-fixation c) denitrification d) nitrification
3. Carbon Dioxide is used by green plants during:  
a) secretion b) food making c) respiration d) excretion
4. Soil destruction or loss of the soil by wind or water is:  
a) conservation b) pollution c) nitrification d) erosion
5. A nitrate is a mineral compound which contains nitrogen, sodium or potassium, and:  
a) carbon b) hydrogen c) iron d) oxygen

### Fill in Blanks

6. During the oxygen-carbon dioxide cycle, carbon dioxide from the air is taken in by green plants during \_\_\_\_\_.
7. The \_\_\_\_\_ phase of the  $O_2 - CO_2$  cycle involves respiration in both plants and animals, as well as the fermentation and decay process of yeasts and bacteria.
8. During \_\_\_\_\_ respiration, sugar is broken down chemically in a change which requires oxygen.
9. The formula for photosynthesis is \_\_\_\_\_.
10. Preserving our forests and fertile fields-keeping our lakes and streams clean is being done by a tremendous program known as \_\_\_\_\_.



## VOCABULARY STUDY

### I. Aims

- A. To motivate students to become aware of words.
- B. To stimulate interest in words.
- C. To use new words in oral and written work.
- D. To increase students interest in reading, writing and speaking.

### II. Word Attack

- A. Say word
- B. Word Clues - Prefixes - Suffixes - Roots
- C. Synonyms & Antonyms
- D. Definition or Explanation
- E. Similarities and Differences
- F. Circumstances
- G. Context Clues
- H. Structural Clues-
- I. Qualifying Words

## VOCABULARY ASSIGNMENT

Once a week on a prescribed day, you will hand in three vocabulary words in alphabetical order. These must be new words that you have come in contact within other classes or in your outside activities. The purpose of this assignment is to improve your vocabulary with words that you use.

### FORM FOR HAND-INS

1. A. Word  
B. Definition from a dictionary  
C. The word used in a sentence.  
D. Where you heard or read it.
2. A.  
B.  
C.  
D.
3. A.  
B.  
C.  
D.

FIRST ASSIGNMENT GIVEN BY TEACHER

1. **Duct** - A tube or channel through which a liquid or air moves.  
to lead, draw or conduct.
2. **Aqueduct** - An artificial channel for conducting water from a distance.
  - a. **aque** - water
    1. **aquarium** - a place where live water animals and plants are kept.
3. **Conductive** - Trending to lead to or toward.
  - a. **con** -- together
  - b. **conduit**
    1. channel for conveying fluids
    2. a tube for electric wire
  - c. **conductor** - a person who leads or directs
4. **Induction** - Reasoning from the particular to the general.
5. **Deduction** - Taking away - reasoning from general to particular.
6. **Ductile** - Able to be drawn out and hammered thin.
7. **Induce** - To move by persuasion.
8. **Seduction** - The act of leading astray into wrongdoing.
9. **Viaduct** - A bridge for conducting a road or railroad over a valley or river.
  - a. **via** - way.

10. Produce - To bring to view; to bear; to make

a. pro - forward

11. Reduce - To lessen in any way; to break up into  
basic elements.

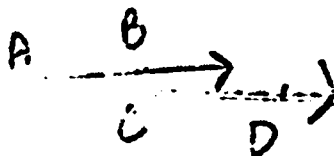
a. re - back

ENGLISH TEST FOR OVERVIEW OF DUCT WORK PROJECT.

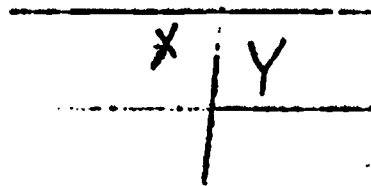
1. Given a three dimensional view:
  - a. describe the stretchout of a cone
  - b. describe the stretchout of an elbow.
2. What is the guide rule to use in measuring the thickness of any object?
3. What is the test to tell that a four-sided polygon is a rectangle?
4. What uses can be made of the compass?
5. What uses can be made of the protractor?
6. After constructing perpendiculars with a compass and a straightedge, what tests can you perform to tell that the lines are really perpendicular?
7. After bisecting an angle with a compass and a straightedge, what tests can you perform to tell that the angles are really bisected?
8. Before measuring with protractor, what must be done? Why?

9. Vocabulary Test

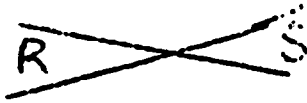
- a. Why is the figure at the right not an angle?



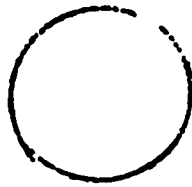
- b. Why are angles x and y not adjacent angles?



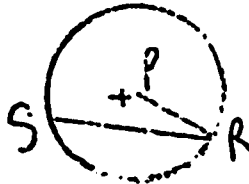
- c. Why are angles  $r$  and  $s$  not adjacent angles?



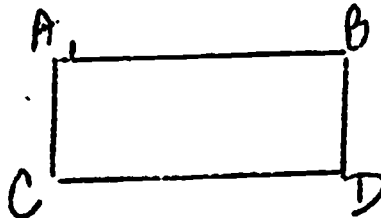
- d. Why is the figure at the right not a circle?



- e. Why is  $PR$  not a radius of the circle?



- f. Why is  $RS$  not a diameter of the circle?

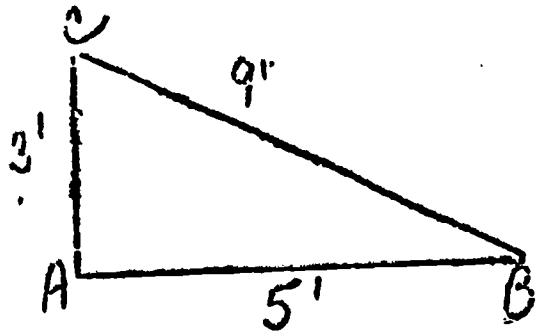


- g. The figure at the right is a parallelogram. What do we mean when we say  $AB$  is parallel to  $CD$ ?

- h. Can a scalene triangle have three acute angles? Why?

- i. Can an acute triangle also be isosceles?

- j. What is wrong with this triangle?



## SUGGESTED ACTIVITIES

### ENGLISH CONTRIBUTION TO DUCT WORK

1. Present a vocabulary lesson using words with duct located in the structure of the word. Continue to have students present words in English class that appear in lessons of the other classes during the duct project
2. Test students general concepts of duct work project based upon vocabulary words.
3. Create socio-dramas using problems that personnel meet in installing an air-conditioning unit.
4. Emphasize the timeliness of the duct project by relating the work of the astronauts in their space suits and air-conditioning
5. Show students that the transitional piece in duct work serves the same purpose as the transitional device in composition writing.

## CULTURALLY ENRICHING EXPERIENCES

The Hackensack High School student grows up in a geographic area which is one of the worlds richest cultural centers. Yet many of the students are totally unaware of the New York Metropolitan Area and what it has to offer.

The Industrial Preparatory teacher will present to the students culturally enriching experiences that will make them aware of the existence of such horizons with the hope that the students will eventually take an interest and explore these interests individually.

Culturally enriching trips will include visits to the legitimate theater, museums, concerts, films, governmental buildings and agencies, parks, newspapers and places of work.

Since the goals and the information desired from each trip will be vastly different, the trip reports requested from the students will depend on the particular visitation. Each excursion will have an orientation by the teacher and a follow-up after they return. Where possible, a specialty teacher from outside the Industrial Prep structure will be used to orient the students and explore the results of the trip.



### How To Conduct A Successful Field Trip

1. The purpose of the trip should fit into the curriculum.
2. Write to the company and give them information concerning the trip: age and grade level, subject interest, number in group, number of responsible adults, alternate date, what is expected to be derived from the tour.
3. Plan and know route, mileage, times and eating facilities.
4. Either go on a tour prior to taking students or call and find out something about the tour.
5. Even though there may be a guide or guides supplied on the tour, it is best to have one teacher for every ten students in a group to supplement what the guide is saying and ask leading questions of the guide and students.
6. Inform students about date, time, conduct, attire, money, lunch, permission slips, mode of transportation.
7. Brief students about trip. Give out Field Trip Report Forms.
8. Make students aware of areas surrounding the tour building and of points of interest on the way to the destination.
9. Write a Thank You note to the company. It would be best if students did it.
10. Follow-up. Reports handed in and discussion.

## BUSINESS TRIP REPORTS

Name	Date of trip
Trip	Date of report

The first day back in class after going on a trip to an industrial plant, the following questions are to be answered. The answers are to be written in whole sentences and in ink.

1. What did you observe about the work climate?
  - i. e. work schedules, tempo of work, relationship workers to workers and workers to management, types of jobs, advancements within firm.
  
2. What did you notice about the physical environment?
  - i. e. layout of plant, working conditions, heat, noise, smells, light, health hazards.
  
3. What machines and tools were used?
  - i. e. complexity, skills required to operate, any dangers, technological processes.
  
4. What did you understand about the fabrication of the product?
  - i. e. organization of production, how product developed, efficiency of production, quality testing used.
  
5. What can you relate from this trip to what you have learned in class?

(cont.)

6. Can you see yourself working here as a high school graduate?  
Why or why not?  
(Do not mention compensation or the ease of the job.)

## General Field Trip Report

Name \_\_\_\_\_ Date of trip \_\_\_\_\_

Trip \_\_\_\_\_ Date of report \_\_\_\_\_

The first day back in class after going on a trip, the following questions are to be answered. The answers are to be written in whole sentences and in ink.

1. Place:
2. Location:
3. Price of Entrance:
4. Field of Interest
5. Purpose of Trip:
6. Information Learned:
7. What Specific Relationship Can you See to any School Subject?
8. What did You Like or Dislike?
9. What was Different?
10. Would You Go on Your Own to the Same Place or a Similiar Place: Why or Why Not?
11. Can you see yourself working in this field?

### Possible Industrial Prep Field Trips

#### New Jersey

Anheuser-Busch, Inc.,	200 U.S. Highway 1, Newark.	(Beverage)
American Can Company	317 St. Pauls Ave, Jersey City	(Sheet Metal)
Anken Chemical Film Corp	Newton	(Photography)
Continental Can Company	297 Getty Ave, Paterson	(Sheet Metal)
The Joseph Dixon Crucible Company	167 Wayne Street, Jersey City	(Pencils)
ESSO Research Center	Route 1 & Park Ave, Linden	(Gasoline)
Ford Motor Company	U.S. Route 17, Mahwah	(Automobiles)
Fort Dix	Fort Dix	(Military-Basic training)
Fort Monmouth	Fort Monmouth	(Military-Signal corps)
Hampton Shops	McLean Blvd, Paterson	(Furniture)
Hoffman-LaRoche, Inc.,	Route 30, Nutley	(Pharmaceuticals)
National Biscuit Company	State Highway 208, Fair Lawn	(Bakers)
New Jersey Turnpike Authority	East Brunswick	(Transportation)
Picatinny Arsenal	Dover	(Ammunition Research)
Port Authority of New York- New Jersey	111 8th Ave. New York, NY 29	(Transportation)

Newark Airport	Newark	(Air Transportation)
Port Newark	Port Newark	(Shipping)
Princeton University	Princeton	(School)
The Record	150 River Street Hackensack	(Newspaper)
Shulton, Inc.,	Route 46, Clifton	(Toiletries)
Western Electric Research Center	Princeton	(Scientific Research)
Westinghouse Electric Corp	Metuchen	(Television - Radio)

### New York

American Museum of Natural History	Central Park West & 79th Street
Circle Line Tour of Manhattan	West 43rd Street & 12th Ave.,
Con Edison - Energy Control Center	178 West End Ave & 65th Street
Nuclear Energy Plant	Indian Point
Hall of Science	Flushing Meadow Park, Queens
Hayden Planetarium	Central Park West & 79th Street
Lincoln Center for the Performing Arts	62nd - 66th Street, Columbus Amsterdam Area,
Madison Square Garden	7th & 8th Aves, 31st-33rd Streets
Metropolitan Museum of Art	5th Ave & 82nd Street

Museum of Modern Art	11 West 53rd Street
New York Stock Exchange	20 Broad Street
New York Times	229 West 43rd Street
New York University & Hall of Fame	Sedgwick & University Aves, 179th - 181 st Streets
Police Academy & Museum	235 E 20th Street
Port Authority of New York-New Jersey (Airports, Bridge, Bus Stations, Piers, Tunnels)	111 8th Ave
Rockefeller Center	5th Ave & 6th Aves, 48th-52nd Streets
St. Patricks Cathedral	5th Ave at 50th Street
Technical Schools	(Check with guidance depart- ment and students)
United Nations	42nd - 48th Streets & East River
United States Merchant Marine Academy	Kings Point, New York
United States Military Academy	West Point, New York
<u>Connecticut</u>	
American Shakespeare Festival	Stratford
Mystic Seaport	Mystic
<u>Philadelphia</u>	
Franklin Institute & Fels Planetarium	20th Street & Benjamin Franklin Parkway
Philadelphia Navy Yard	League Island

31

30

INDUSTRIAL PREP  
OCCUPATIONS



## OCCUPATIONS

During the sophomore year an introduction to a variety of vocational patterns is presented in this program. The occupations class exposes the student to a multitude of vocations and attempts to have him obtain a realistic appraisal of his potential. The class meets for one semester and is a minor (1½ credits) subject. The work covered includes units on understanding one's self, an introduction to occupations, and work-related topics.

The first area of material concerns itself with having the student assess himself as to his needs, desires, special skill, and aptitudes. This is done through the techniques of group guidance and personal inventories. Time is spent on the development of understanding "self", with discussion on the role of personality in job success. Interest and aptitude testing is done with the cooperation of the Guidance Department and the results are interpreted with the students. The General Aptitude Test Battery is administered during the semester and the pupil has the opportunity of reviewing this indicator that can help him find realistic direction to his occupational career.

The Introductions to Occupations Unit takes advantage of community resources. Representatives of various trades and professions are invited to participate in a question-and-answer interview staged by the students.

### Occupations (cont.)

This is done in an informal setting with the students taking notes and then transferring them to a prepared outline the next day. Approximately two speakers per week are scheduled, and they represent areas of work selected by the students. When an Industrial Prep project coincides with a vocational field, a person from that field is invited in.

The service organizations in a community (Junior Chamber of Commerce, Rotary, Kiwanis, etc.) can be called on to help provide men to come into the classroom for this function. This is a method of investigating an occupation that enables the students to hear "first-hand" about what the work is all about. It brings a personal touch to the exploration of vocations that often proves valuable to a student. The speakers may be brought into the class throughout the semester and scheduled in between the other units.

The National Association of Manufacturers issues an "Industry On Parade" film series that can be shown weekly. These films are fifteen-minute presentations on various companies and their products. Job analysis can be discussed from these and they aid in the exposure of youngsters to different working conditions.

Films depicting vocational areas are also presented each week in this course and are selected from the many audio-visual catalogues available. They are reviewed

## Occupations (cont.)

and discussed and often used as the basis for work-related topics.

Field trips to multi-occupational industries help provide added insights into the work world. Larger organizations are usually selected for they can often offer more opportunities of watching many different skills at work.

The work-related material is presented all through the semester. The topics selected are those that can enrich the work perspective of the people in the program. Some current topical units (i.e. strikes, business negotiations, etc.) may be subjects that could be introduced to the class at the moment of their happening. To do this helps add realism to the work. A sampling of the work-related discussion topics include the following:

- a. wage incentive programs
- b. automation
- c. budgets
- d. value and work
- e. personal needs in work
- f. analysis of famous people
- g. social status of various jobs
- h. strike rights for civil employees
- i. social security

Provided in this unit are sample class lesson units. They are included as a guide to the program and do not represent a semester's work. Often, segments of the material in the program require more in-depth exploration as dictated by the needs of different groups of students.

Occupations (cont.)

Additional time and work on certain weaknesses of particular classes require the occupations teacher to pay heed to portions of the introductory unit, thus spending less time on other work. Timely topics can also modify the program, substituting current, pertinent material at hand for scheduled work.

## OCCUPATIONS

### Semester Outline (20 weeks)

- I. Knowing Yourself
  - A. Importance of Knowing Yourself
  - B. The Role of Personality In Job Success
  - C. Testing
- II. Introduction to Occupations
  - A. Field Trips
  - B. Representatives of Various Occupations
  - C. Films
- III. Exploring Work-Related Topics
  - A. Personal Needs In The Work World
  - B. Labor Management Relations
  - C. Job Status
  - D. Applying for Jobs
  - E. Pertinent Work Information

## Knowing Yourself

Man must have a realistic self-appraisal of himself to function successfully in the work world. Contentment, the need for security, ambition, initiative, etc., are needs and traits that have to be understood for a person to find the satisfactions he deserves from a job. Too often youngsters graduate from high school with far too little understanding of "self" and are ill prepared to enter into vocational patterns that will exercise such vital importance in their adult lives. An awareness of what makes a person the way he is and what can he do to develop or improve some of his traits are topics that form the basis for understanding in this area.

A fundamental unit on personality satisfies the need for a realization of personal "make-up". The groundwork can be laid to motivate the student into achieving insights into his own personal development and, why he is the way he is. It is apparent that a comprehensive psychological study is not desired but rather a broad, general presentation should be delivered in this area. Opportunities for self-expression in group work provide the atmosphere for individual perception of the material as the people relate to each other. This brings out in the students an awareness of how they perceive others as well as how they are received by their peers.

### Knowing Yourself (cont.)

With the aid of the Guidance Department, individual aptitude and interest tests are administered and evaluated with the students. The General Aptitude Test Battery provides an excellent applicable indicator for the student in helping him obtain a realistic direction to his occupational career. When interpreted with a vocational counselor and combined with experience from the occupations class, the G.A.T.B. fulfills the need for a scientific tool in the vocational exploration process. It is not used as the prime factor in decision making, but as an aid in the search for self-development.

## MOEEL UNIT PLAN

### Knowing Yourself

#### I. Aims

- A. To develop in the student an awareness of the importance of self-realization for job success.
- B. To have students realize the influence of personality in daily relations.
- C. To have the students arrive at a basic understanding of personality development.
- D. Have students analyze and develop fundamental processes for improvement of specific personality traits.
- E. To aid the student in an honest self-realization for self-direction in occupational decision making.

### Presentation

#### I. Methods and Techniques

##### A. Group discussions

1. Many topics can best be reasoned by students in an atmosphere in which they feel free to express their thoughts. Small groups can be organized within the room that have chairmen whose function is to lead the discussion on the material presented. View points and opinions are offered and considered by the students and conclusions or a consensus can be made within the group. At the end of the group discussion period, the various determinations are opened to class consideration. This method of dealing with related occupational material brings good response from pupils and is a factor in their emerging as individuals, not afraid to speak their mind.

An interesting technique in starting this group work is to have evaluators appointed within each group. Their responsibilities are to



**Presentation (cont.)**

judge the efficacy of the chairman as to how well he solicited responses and encouraged discussion by all of his members.

- B. Lecture, class discussion, testing, fill-in sheets, and the use of audio-visual materials are other teaching methods and techniques that are used in this unit.

SAMPLE LESSONS  
FOR  
FIRST UNIT

## THE DEVELOPMENT OF PERSONALITY

### I. Objectives of Lesson

- A. Introduce importance of knowing yourself
- B. To define personality
- C. To develop insights into personality development
- D. Relate personality to job success

### II. Presentation Outline

#### A. Knowing Yourself

##### 1. Importance of knowing yourself.

- a. Statistics tell us that 90 per cent of all of the workers dismissed from jobs are let go because of personality problems.
- b. Knowing yourself makes you better prepared to relate to others and to understand others.
- c. All young people have a deep desire to know themselves better and become persons in their own right.
- d. When a valid understanding of one's self has been developed, realistic occupational decision making becomes easier.

#### B. Defining Personality

##### 1. Three definitions.

- a. Personality is the average behavior that a person exhibits in his daily life.
- b. Personality is the composite of all the things a person is. It involves his thoughts, actions, looks, feelings etc.
- c. A person's personality is the way that others see him. Other people's interpretation of someone may determine what his personality is.

## Presentation Outline (cont.)

### C. Factors that mold personalities

#### 1. Home life

- a. The people that raise a youngster have a tremendous influence over his personality development.

#### 2. Inherited physical characteristics

- a. The way a person often has a direct bearing on the way he thinks and acts.

#### 3. Peer influence

- a. Friends' actions and standards can inspire personality changes.

#### 4. Total environment

- a. There can be direct or indirect causes of influence on personality development throughout a person's life.

## III. In-Class Assignments

### A. Class discussion

1. Explain how personality can affect your success in the occupational field you plan to enter.

### B. Group Work

1. Discuss what affects your personality in relation to the way you act with:
  - a. parents or guardians
  - b. friends
  - c. employers
  - d. teachers

(two objectives of this assignment might be to have students analyze reasons for their behavior and to realize that their personality takes on different postures throughout a day).

## FAVORABLE PERSONALITY TRAITS

### I. Objectives of Lesson

- A. To identify personality characteristics.
- B. Realize the effects of reputations on people.
- C. Appreciate the necessity of developing favorable personality traits.

### II. Presentation Outline

#### A. Favorable traits

1. Personalities are composed of consistent combinations of attitudes, habits, and feelings. These develop into distinct characteristics exhibited by people and are known as traits. Some of these traits are desirable and appreciated by others and are called favorable personality traits.

2. Some favorable traits are:

- |                 |                 |
|-----------------|-----------------|
| a. cooperation  | f. industry     |
| b. courtesy     | g. loyalty      |
| c. enthusiasm   | h. neatness     |
| d. honesty      | i. poise        |
| e. foresight    | j. self-control |
| k. friendliness |                 |

### III. In-Class Assignments

- A. Class discussion
  1. Use proverbs and "old-sayings" as a guide to behavior.
- B. Class assignment
  1. Use provided pocket dictionaries to arrive at definitions of favorable personality traits.
- C. Group work
  1. Discuss these points:
    - a. What makes a good personality?
    - b. How can one learn to take criticism gracefully?
    - c. How do you know when to use your own initiative and when to ask questions of your employer?
    - d. Just how sociable and friendly should one be at work?

## OCCUPATIONS HANDOUT SHEET

### Favorable Personality Traits

Using the dictionary provided, define each of these traits:

- a. industry
- b. poise
- c. punctuality
- d. foresight
- e. neatness
- f. ambition
- g. enthusiasm
- h. cooperativeness
- i. tact
- j. sense of humor
- k. loyalty
- l. dependability
- m. honesty

You add one more favorable trait:

n.

## OCCUPATIONS HANDOUT SHEET

### Personality Traits

What personality traits are suggested by the following proverbs and sayings?

1. Do unto others as you would have others do unto you.

- a.
- b.
- c.
- d.
- e.

2. Laugh and the world laughs with you.

- a.
- b.

3. The early bird gets the worm.

- a.
- b.
- c.
- d.
- e.

4. A chain is only as strong as its weakest link.

- a.
- b.

5. Like a bull in a china shop.

- a.
- b.

6. A rolling stone gathers no moss.

- a.
- b.

7. Success is 10 per cent inspiration and 90 per cent perspiration.

- a.
- b.
- c.

8. A task well planned is a task half done.

- a.

## UNFAVORABLE PERSONALITY TRAITS

### I. Objective of Lesson

- A. To identify those characteristics which tend to offend others.
- B. To examine the effect of unfavorable traits on reputations.
- C. To define personality types.

### II. Presentation Outline

#### A. Unfavorable traits

1. These characteristics have been found to have a bad effect on people.
2. Other peoples' estimation of you may be heavily influenced by one unfavorable trait.
3. These traits can often be controlled.
4. A sample listing of undesirable traits might include:

- |                              |                                  |
|------------------------------|----------------------------------|
| a. being argumentative       | f. careless                      |
| b. being stubborn            | g. tendency to delay             |
| c. undesirable health habits | h. inability to accept criticism |
| d. indifference              | i. rudeness                      |
| e. being moody               | j. conceited                     |
| k. forgetfulness             |                                  |

#### B. Personality types

1. An introvert is a shy, sensitive and withholding person.
2. An extrovert is a person who displays his feelings casually and without reserve.

### III. In-Class Assignments

#### A. Class assignment

1. Define traits using experience and dictionaries provided.

#### B. Class discussion on relative importance of some traits.

1. Pass out voting sheets and derive a frequency chart on the basis of the tally of the vote.

#### C. Group work

1. Discuss what are the things that contribute most to a bad reputation.



## OCCUPATIONS HANDOUT SHEET

### Unfavorable Personality Traits

Using the dictionary provided, define each of these traits;  
or offer your own definitions:

- a. being argumentative
- b. stubborn
- c. wordy
- d. careless
- e. procrastination
- f. inability to accept criticism
- g. rudeness
- h. aloofness
- i. indifference
- j. undesirable health habits
- k. conceited

Add three more undesirable traits:

- 1.
- 2.
- 3.

## CHANGING PERSONALITY TRAITS

### I. Objectives of Lesson

- A. To realize the potential of changing a personality characteristic.
- B. To arrive at a plan for modification.

### II. Presentation Outline

- A. Difficulty of personality change.
  - 1. Through years of habit, people develop certain traits that become imbedded in their personal make-up.
  - 2. Hereditary influences remain dominant in personality development.
  - 3. Being a part of a continuing environmental influence retards personality changes.
- B. Possible methods of personality trait modification.
  - a. have a good reason for selection of a trait.
  - b. devise a method of implementing a change.
  - c. evaluate the results.

### III. In-Class Assignments

- A. Class discussion
  - 1. Solicit class for possible ways of keeping aware of the display of particular undesirable traits.
  - 2. Arrive at counter habits for the displacing of an unfavorable characteristics.
- B. Group work
  - 1. Have students offer personal situations and have group members discuss and offer possible solutions and advice. (A main objective is to have students relate to each other).

## SAMPLE CASE STUDIES FOR DISCUSSION

### ON

## THE ROLE OF PERSONALITY IN JOB SUCCESS

These case studies can be used to stimulate discussion and analysis of controlled behavior on the job and also a development of acceptable and desirable work attitudes.

1. John Jenkins is a responsible, good worker for the Diamond Brake Show Company. He is well liked by his fellow workers and is most cooperative with them. Whenever one of them has a problem that requires the aid of two men, John can be counted on to help out. His foreman says that he is one of the faster men in his section in production and his work is always of good quality. However, John has a problem of getting to work on time. He seems to either wake up late or have to drive a sister of his to school, or he gets caught in traffic thus making him late for work. These incidents are occurring often and the boss of the plant doesn't like them. He told the foreman to set John straight and put an end to this coming in late.

- a. What should John do to get him to work on time?
- b. Is he really a responsible worker?
- c. What should he do if he is late?

2. Jack worked next to a fellow in a shop who had a bad

### Sample Case Studies (cont.)

case of body odor. The guy was new to the shop and seemed to be a nice enough person and was a very good worker. Jack thought that by keeping away from the man, he would give him the idea that something was wrong and for the fellow to consider himself more carefully. This only made the guy think that Jack was an unfriendly person, and he never was aware of his problem ..... that is, he never thought it offended people the way Jack was offended. The next step in this case could become serious. The men might become real enemies, and the work might be affected.

- a. How should Jack handle this situation?
- b. How should the man approach Jack to find out what is wrong with him?

3. At the Globe Printing Company, there is a conflict between two workers. Ted Simpson and Gene Brown, who are supervisors, just don't get along. It seems that Ted once said something to Gene that really upset him and Gene won't forget it. Ted tried to apologize but Gene didn't want to accept the apology and the trouble continued. They won't talk to each other except if absolutely necessary for business reasons. The trouble is starting to affect work in the company because they won't ask each other questions if a problem arises and the other workers are afraid to take sides. Also, the workers often do too many things on their own for fear of offending one of the

### Sample Case Studies (cont.)

two men. The workers feel that by going to one of the supervisors with the other around, they may be accused of being too friendly to one of them. It's all very stupid, but nevertheless real.

- a. What should the owner of the company do?
- b. What should the workers do about the situation?
- c. What should either Ted or Gene do?

**SUGGESTED FILM LIST**  
**FOR**  
**KNOWING YOURSELF UNIT**

1. "Improve Your Personality", 11 min.  
Coronet Films  
Sales Department  
Coronet Building  
Chicago, Illinois
2. "Personal Appearance", 38 min.  
Coronet Films
3. "Personal Qualities For Job Success", 11 min.  
Coronet Films
4. "Developing Your Character", 11 min.  
Coronet Films
5. "Don't Get Angry", 12 min.  
Encyclopedia Britannica Films  
202 East 44th Street  
New York 17, N.Y.
6. "Understanding Your Emotions", 14 min.  
Coronet Films

INTRODUCTION TO OCCUPATIONS

## INTRODUCTION TO OCCUPATIONS

Work information must be current. The requirements, preparation, and work conditions of jobs keep changing and the instructor of an occupations class has to keep his information up-to-date and pertinent. Textbooks on occupations are scarce and rightly so, because out-of-date material on the world of work is of little value. Work information is obtained through only those sources that provide the insights that have current and future values.

The heart of this course is the scheduling of representatives from selected areas of work to come to the class and discuss their experiences with the students. This method of exploring occupations provides the people in the class with meaningful information on jobs. The guests who speak with the youngsters are local and know of the immediate area's needs and working conditions. The representatives also provide the class with the personal aspect needed in job information seeking that is lacking in films and published material.

The visitations are conducted as an interview, with the students asking questions and taking notes on the answers. The men who come to the class do not prepare any speech but rather should come prepared to speak informally and participate in the discussion in a relaxed atmosphere.

Some time in class is spent preparing the students for receiving visitors and in arranging the mechanics of interviewing. Students compose sample question and develop an interview outline prior to the arrival of their



## Introduction to occupations (cont.)

first guest. The outline is filled in the day after the interview and is followed by a personal evaluation. This requires a student to exercise opinion in relation to his own interests, needs, and aptitudes. Discussion is held on the area of work and reactions to the interview are reviewed and analyzed.

Additional introduction to occupations is achieved through the use of motion picture films. Many companies and associations sponsor films that provide on-the-job pictures of people at work. Often a company will take the viewer on a tour of its facilities and in so doing will show workers engaged in activities that would be difficult to describe. This is an aid in presenting more comprehensive insights into exploring occupations.

Occupational literature published by professional and trade associations and various industrial enterprises furnish added information on occupations and careers. These publications are usually attractively designed, current, and also slightly prejudiced. They offer the glamorous or favorable aspects of the vocations they discuss, but nevertheless contain valuable information. By accumulating a collection of recruiting and general information booklets, the class can build a current resource library on occupations. Exploring occupations assignments with free reading and discussion periods utilizing this material can be undertaken throughout the year.

## Introduction to occupations (cont.)

An occupational survey can be conducted in the class using the Yellow Pages of the phone directory as a source of information. The survey is used as an indicator of job potential in the immediate area. From this project, a student becomes more familiar with the number and types of industries and business concerns in and surrounding his community. It also helps to identify and learn about unique or unusual occupations. The telephone company can be counted upon to readily supply the directories.

Field trips are an integral part of job exploration. Efforts should be made to schedule as many as possible to sites that will offer as comprehensive a picture of work conditions as possible.

Another survey can be implemented using alumni of the school as a source of information. Letters can be formulated and sent to people who have been graduated five or more years ago. Inquiries can be made of these former students as to: the job they hold, what the work consists of, the manner in which they obtained the job, what they like and dislike about the position, etc. The replies can be discussed and tabulated and the students in the class can add to their knowledge of themselves and occupations.

OCCUPATIONAL INTERVIEW

Occupational Analysis of

Name \_\_\_\_\_

1. Nature of work:

2. Requirements of the job:

3. Preparation needed:

4. Working conditions (list at least 10):

- |    |    |
|----|----|
| a. | g. |
| b. | h. |
| c. | i. |
| d. | j. |
| e. | k. |
| f. | l. |
| m. |    |

5. Pay and promotions:

Occupational interview (cont.)

6. Getting a job in this field:

7. The future:

8. Association of workers:

9. Personal observations:

SUGGESTED QUESTIONS AND GUIDELINE  
FOR  
OCCUPATIONAL INTERVIEW

I. Nature of Work

- A. What do you do on your job?
- B. What is a typical day like?
- C. Is your work profitable?
- D. Are there many satisfactions in your work?
- E. Do you perform many different operations on your job?
- F. Do you come in contact with many people?
- G. Are you allowed freedom of expression on your job?
- H. Does responsibility for many things come with your job?
- I. Do many people depend on you?

II. Requirements of the Job

- A. Age
- B. Physical
- C. Emotional and personality
- D. Coordination
- E. Tools needed
- F. Special uniforms or protective devices
- G. Talents
- H. Licenses
- I. Travel
- J. Sex
- K. Special experiences

## Guideline for occupational interview (cont.)

### V. Pay and Promotions

- A. What is the range of pay for your work?
- B. How long does it take to make top money?
- C. What does advancement depend upon?
- D. Do people get paid by hour, day, week, month, or year?
- E. How high can a person in this field rise?
- F. Is it conceivable to go into business for yourself in this field?
- G. Are you assessed any special amounts of money at work?
- H. Does your company provide benefits that would otherwise cost you money?

### VI. Getting A Job In This Field

- A. Where are the sources that a person could find out about openings in this field?
- B. Is a resume needed?
- C. Is there any discrimination that you know of in hiring?
- D. Are there special tests or examinations given for placement?

### VII. The Future

- A. What is the immediate outlook for this occupation?
- B. What is the long-range forecast for this field?

### VIII. Associations of Work

- A. Union
- B. Professional organization
- C. Fraternities

OCCUPATIONS HANDOUT SHEET

FOLLOW-UP ON OCCUPATIONAL INTERVIEW

STUDENT'S NAME

OCCUPATION

1. List here all the things you would have to do in this occupation that you think you could do well.
  
2. List here all the things you would have to do in this occupation that you think you would enjoy doing.
  
3. What in job would you dislike doing?
  
4. What couldn't you do well?
  
5. List the physical requirements demanded of the job:
  
6. Which of these couldn't you meet?

Follow-up on occupational interview (cont.)

7. Your personal observation:

---

Occupational Information - Hoppock



OCCUPATIONAL HANDOUT SHEET

Check List of Job Demands

Job Title \_\_\_\_\_ Date \_\_\_\_\_

- |                            |                          |                                 |                    |
|----------------------------|--------------------------|---------------------------------|--------------------|
| 1. Seeing _____            | 2. Running _____         | 28. Hot _____                   | 29. Dry _____      |
| 3. Walking _____           | 4. Pushing _____         | 30. Wet _____                   | 31. Dirty _____    |
| 5. Jumping _____           |                          | 32. Cold _____                  | 33. Dusty _____    |
| 6. Balancing _____         |                          | 34. Noisy _____                 | 35. Odors _____    |
| 7. Climbing _____          |                          | 36. Humid _____                 | 37. Inside _____   |
| 8. Crawling _____          |                          | 38. Outside _____               | 39. Overtime _____ |
| 9. Standing _____          |                          | 40. Adequate Ventilation _____  |                    |
| 10. Turning _____          |                          | 41. Adequate Lighting _____     |                    |
| 11. Stopping _____         |                          | 42. Vibration _____             |                    |
| 12. Crouching _____        |                          | 43. Mechanical Hazards _____    |                    |
| 13. Kneeling _____         |                          | 44. Moving Objects _____        |                    |
| 14. Sitting _____          |                          | 45. Cramped Quarters _____      |                    |
| 15. Reaching _____         |                          | 46. High Places _____           |                    |
| 16. Lifting _____          |                          | 47. Exposure to Burns _____     |                    |
| 17. Carrying _____         |                          | 48. Electrical Hazards _____    |                    |
| 18. Throwing _____         |                          | 49. Explosives _____            |                    |
| 19. Pulling _____          |                          | 50. Radiant Energy _____        |                    |
| 20. Handling _____         |                          | 51. Toxic Conditions _____      |                    |
| 21. Feeling _____          |                          | 52. Working with Others _____   |                    |
| 22. Fingering _____        |                          | 53. Working around Others _____ |                    |
| 23. Talking _____          |                          | 54. Working Alone _____         |                    |
| 24. Hearing _____          |                          | 55. Overtime _____              |                    |
| 25. Color Vision _____     |                          | 56. Seasonal _____              |                    |
| 26. Depth Perception _____ |                          | 57. Peak Loads _____            |                    |
| 27. Working Speed _____    |                          | 58. Use of Tools _____          |                    |
|                            | 59. Method of Play _____ |                                 |                    |

Check List (cont.)

MENTAL DEMANDS

General Requirements

- 60. Counting \_\_\_\_\_
- 61. Use of Ruler \_\_\_\_\_
- 62. Addition \_\_\_\_\_
- 63. Subtraction \_\_\_\_\_
- 64. Multiplication \_\_\_\_\_
- 65. Division \_\_\_\_\_
- 66. Making Change \_\_\_\_\_
- 67. Higher Mathematics \_\_\_\_\_
- 68. Spelling \_\_\_\_\_
- 69. Vocabulary \_\_\_\_\_
- 70. Organization of Information \_\_\_\_\_
- 71. Abstract Thinking \_\_\_\_\_
- 72. Abstract Reasoning \_\_\_\_\_
- 73. Giving Instruction \_\_\_\_\_

VOICE REQUIREMENTS

- 74. Voice Enunciation \_\_\_\_\_
- 75. Voice Diction \_\_\_\_\_

STRESS REQUIREMENTS

- 76. Monotony \_\_\_\_\_
- 77. Repetition \_\_\_\_\_
- 78. Mental Stress \_\_\_\_\_
- 79. Accuracy \_\_\_\_\_
- 80. Neatness \_\_\_\_\_
- 81. Precision \_\_\_\_\_

PERSONAL APPEARANCE

- 82. Personal Cleanliness \_\_\_\_\_
- 83. Personal Neatness \_\_\_\_\_
- 84. Fashionable Dress \_\_\_\_\_
- 85. Special Dress \_\_\_\_\_

CHARACTER REQUIREMENTS

- 86. Stability \_\_\_\_\_
- 87. Tolerance \_\_\_\_\_
- 88. Dependability \_\_\_\_\_
- 89. Self-reliance \_\_\_\_\_
- 90. Emotional Stress \_\_\_\_\_
- 91. Cooperation \_\_\_\_\_
- 92. Sociability \_\_\_\_\_
- 93. Need to deal with Un-expected Situations \_\_\_\_\_
- 94. Reliability \_\_\_\_\_

PERSONALITY REQUIREMENTS

- 95. Extroversion \_\_\_\_\_
- 96. Introversion \_\_\_\_\_
- 97. Ambiversion \_\_\_\_\_
- 98. Adaptability \_\_\_\_\_
- 99. Courtesy \_\_\_\_\_
- 100. Tact \_\_\_\_\_
- 101. Sense of Humor \_\_\_\_\_
- 102. Patience \_\_\_\_\_

Check list (cont.)

EDUCATION REQUIREMENTS

- 103. Elementary School \_\_\_\_\_
- 104. High School \_\_\_\_\_
- 105. College \_\_\_\_\_
- 106. Technical Training \_\_\_\_\_

INTELLIGENCE REQUIREMENTS

- 107. Intelligence for work and abstract ideas \_\_\_\_\_
- 108. Skill with the use of one's hands \_\_\_\_\_
- 109. Social intelligence -- ability to get along with one's fellows \_\_\_\_\_
- 110. Memory \_\_\_\_\_
- 111. Concentration \_\_\_\_\_
- 112. Alertness \_\_\_\_\_
- 113. Imagination \_\_\_\_\_

Summary:

THE ANALYST IS TO USE THE SCALE 0 TO 5. THE RATING IS PLACED BEFORE EACH WORKING CONDITION OR ABILITY TO WHICH THE WORKER IS REQUIRED TO BE EXPOSED TO OR MUST POSSESS. ALL ITEMS MUST BE MARKED.

---

Eldean V. Kohrs - Rutgers University

## OCCUPATIONAL SURVEY

### I. Objectives

- A. To have students become aware of the distribution of occupations in their county.
- B. To have students realize the multitude of occupational opportunities in their locale.
- C. To have students realize the range and variety of occupational opportunities in their area.

### II. Presentation

- A. Have students think about and then list the number of occupations that they have come in contact with (indirectly or directly) since they awoke that morning. People take little notice of the many men and women at work as they move through their daily routines.
- B. The Yellow Pages of a telephone directory provide an interesting source for the exploration of the many occupations of a particular area.
- C. The Occupational Outlook Handbook includes the descriptions of many jobs and can be read with interest.

### III. In-Class Assignments

- A. Class assignment
  1. Assign each student a portion of the telephone directory and have him record all areas of work that have seven or more listings and list any occupation that is unusual or unknown to him.
- B. Class discussion
  1. Talk about the findings of students using personal experiences or the Dictionary of Occupational Titles as resource material.



SUGGESTED FILM LIST FOR INTRODUCTION

TO

OCCUPATIONS UNIT

1. The Clerk - 27 min. - \$7.50  
New York University Film Library
2. The Department Manager - 27 min. - \$7.50  
New York University Film Library
3. The Man on the Assembly Line - 27 min. - \$7.50  
(Provocative - a look at man and mass production)  
New York University Film Library
4. The Vice President - 27 min. - \$7.50 (Executive)  
New York University Film Library
5. How A Commercial Artist Works - 14 min. - Free  
Modern Talking Films  
315 Springfield Avenue  
Summit, New Jersey
6. The Telephone Man - 29 min. - Free  
Modern Talking Films
7. The Electrical Worker - 29 min. - Free  
Modern Talking Films
8. The Draftsman-Surveyor - 29 min. - Free  
Modern Talking Films
9. The Metal Worker - 29 min. - Free  
Modern Talking Films

Suggested film list (cont.)

10. The Electronics Technician - 29 min. - Free  
Modern Talking Films
11. The Construction Worker - 29 min. - Free  
Modern Talking Films
12. The Law Enforcement Officer - 29 min. - Free  
Modern Talking Films
13. The Motor Mechanic - 29 min. - Free  
Modern Talking Films
14. Precision Tool Making and Machining - 25 min. - Free  
Modern Talking Films
15. Industry On Parade - 13½ min. - Free  
National Association of Manufacturers  
(weekly series can be scheduled)
16. Admirals In The Making - 13½ min. - Free (U.S. Navy)  
Association Films
17. CPA - 29 min. - Free (Certified Public Accountant)  
Association Films
18. Summer of Decision - 28½ min. Free (Social Work)  
Association Films
19. Train We Must - 20 min. - Free (Firemen)  
Association Films

Suggested film list (cont.)

20. Engineer: Man of Densiry - 30 min. - Free  
Sterling
21. The General With The Cockeyed Id - 19 min. - Free  
(general contractor)  
Sterling
22. I Am A Doctor - 30 min. - Free  
Sterling
23. Meat On The Move - 30 min. - Free  
(meat industry)  
Sterling
24. This Is Pharmacy - 27 min. - Free  
Sterling
25. Tommy Looks At Careers - Trucking - 20 min. Free  
Sterling
26. Tommy Looks At Careers - Chemistry - 26 min.  
Sterling



WORK - RELATED TOPICS

### EXPLORING WORK-RELATED TOPICS

Disseminating occupational information to students covers a wide field. Attempts to present as comprehensive a picture as possible of the individual in relation to his occupational future should be the major goal of the class instructor. Topics presented to the class must be considered in the light of the students' vocational decision-making development and should add to his awareness of the world of work and to the development of the realization of himself in it.

The work selected for this unit is dependent upon the needs of a particular group. Some material is universal and may be covered in all occupations classes while other topics may be local in nature and have importance only in certain areas. The teacher must make decisions on what to cover. The topics in this work-related unit should be presented all through the semester and not scheduled to be given as a completed area of work. The range of material is virtually boundless. While the introduction to this course included only a small representative group of topics to explore, the instructor should be alert to applicable items that will have bearing on the objective of the program.

## MODEL UNIT PLAN

### Work-Related Topics

#### I. Aims

- A. To better enable students to become aware of the depth of the work world spectrum.
- B. To have students objectively evaluate work-related problems.
- C. To prepare students for confrontation with issues that they will face as workers.

#### II. Presentation

##### A. Methods and Techniques

1. Added to the lecture class discussion and group work methods of subject matter presentation, there are included in this unit debate, panel discussions, and role playing.

##### a. Debates

- 1) Some material can be vividly demonstrated using a student organized debate. Very often strong opinions are held by youngsters and they welcome the opportunity of trying to persuade others in their beliefs. This condition can be capitalized upon and put to use as a debate between two students or a team of students. Sample topics for such a debate might include:

- a) a right-to-work law
- b) automation and its effect on the worker
- c) teachers, postal employees, garbage men.... should they be permitted to strike?

## Panel discussions (cont.)

### b. Panel discussions

1) There are some topics that can lend to panel discussion work very handily. These panels can be arranged and conducted by students or may be composed of knowledgeable people from the community. Panel discussions offer advantages of gaining insight into the problem at hand and also into human relationships. Sample topics for panel discussions might include:

a) technical and trade school training

1. panel consisting of:

- a. representative from schools
- b. a guidance counselor
- c. student chairman

b) advancement opportunities in industry

1. panel consisting of:

- a. personnel man from large concern
- b. representative of a small business
- c. student chairman

c) role playing

1. human behavior in work settings can be explored in an interesting and provocative manner using role playing in the classroom. Perceptions of the results of interactions between involved people in various situations are often difficult to present in the classroom. Role playing permits the projection of "self" into positions where individual responses may be critical. Some

Panel discussions (cont.)

1!(cont) Sample topics that might be developed could be:

- a. scene involving a boss considering firing an employee
- b. situation involving a dispute between two workers
- c. interview of a candidate for a job

SAMPLE LESSONS  
FOR  
WORKK - RELATED UNIT

## JOB STATUS

### I. Objectives

- A. To have students examine their prejudices in classifying jobs.
- B. To open up the possibility of considering occupations that previously had been unreasonably not well thought of.

### II. Presentation Outline

- A. Occupations are consciously and subconsciously classified by people.
  - 1. We tend to call some jobs menial or beneath our status. Other types of work we place high esteem to.
  - 2. Some examples of the criteria people use to rate jobs:
    - a. physical conditions of work
    - b. pay
    - c. preparation needed for job
    - d. the group of people who take the jobs
    - e. other peoples' influence
- B. Comparison of Positions
  - 1. Similarities can be found between the most unlikely jobs.
    - a. Physicians, plumbers, and garbage men often work around odors. These men are all essential for the health and sanitary conditions of a community.

### III. In-Class Assignments

- A. Class assignment
  - 1. Using the hand-out sheets, list jobs that you consider low or menial, and those which you think highly of -- give simple reasons for selections.

Job Status (cont.)

B. Class Discussion

1. Solicit examples of students' job evaluations and discuss the logical merits of these.

C. Group Work

1. Discuss why some men take jobs others do not want.



## ESTIMATING FINANCES

### I. Objectives of Lesson

- A. To have students become aware of their potential earnings in relation to their needs and desires.
- B. To have students realize the cost of living
- C. To develop habits of planning and foresight.
- D. To have students gain insights into the economic conditions of today.

### II. Presentation Outline

- A. Present domestic situation of a typical family of four consisting of husband, wife, and two elementary school-aged children. Problem: How much money must a man earn to have his family enjoy an "average" life. (they would reside in either a home or an apartment, whichever is more popular in the area.)

#### B. Consider these points:

1. shelter
2. food
3. medical
4. insurance
5. transportation
6. savings
7. clothes
8. miscellaneous
  - a. entertainment
  - b. cleaning and laundry
  - c. hobbies
  - d. barber and beauty salon
  - e. etc.

### III. In-Class Assignment

#### A. Class and Group Discussions

1. Discuss and analyze the need and cost of above items. The students must support their statements with personal experiences or the classified and advertisement section of local newspapers. The instructor should take the average determinations of the class for a listing of the final estimation.

### In-Class Assignment (cont.)

2. List jobs that can be expected to pay the salary estimated by class in exercise.

#### B. Group Work

1. In each group, have students exchange personal experiences, and develop bar graphs illustrating the cost of various items.

#### C. Class Assignment

1. Use the estimating hand-out sheet to determine annual, monthly, and weekly expenses.

OCCUPATIONS

Estimating Finances

	<u>Year</u>	<u>Month</u>	<u>Week</u>
Shelter			
Medical Expenses			
Insurances			
Transportation			
Food			
Clothing			
Savings			
Miscellaneous			
Total			

This represents averages for the expenses of a family of four (two young children).

## OCCUPATIONAL NEEDS

### I. Objective

- A. To have students realistically appraise their occupational direction.
- B. To aid students in learning more about themselves.
- C. To have students realize the importance of knowing themselves better before selecting a vocation.

### II. Presentation

#### A. Man's Universal Needs

1. Food, water, shelter, etc. make up man's physical needs, and he also has spiritual and personality needs.

#### B. Man's Occupational Needs

1. To be satisfied at work, a man must have a set of needs met.
2. Because of the amount of time spent on a job, the satisfaction of work is vital to his outlook on his entire life.
3. Examples of occupational needs:
  - a. money
  - b. specific hours of work
  - c. work alone - with others
  - d. security
  - e. indoors-outdoors
  - f. adventure
  - g. help others
  - h. etc.
4. The relationship of various occupations can be apparent even though they deal in different materials by examining the needs met by people engaged in the work. For example, a teacher, minister, personnel director, and funeral director are involved in different vocational areas of work, but share a need to work with and guide people. Psychologists are considering whether this need is equally important to the man as are the needs of working with various materials as a vocational criteria.

## Occupational needs (cont.)

### III. In-Class Assignments

#### A. Class Discussion

1. Ask the class to cite examples of personal experiences where individuals had specific work needs that had to be met.

#### B. Group Work

1. Have pupils discuss their personal occupational needs and evaluate the importance of each need.

#### C1 Class Assignment

1. Hand out needs - rating sheet and have a bar graph made on the average results of the survey.

## OCCUPATIONS HANDOUT SHEET

### Basic Occupational Needs

Use the scale of 0 to 5 to rate these needs as they apply to you in relation to your occupational goals.

1. Money \_\_\_\_\_
2. Need to help people \_\_\_\_\_
3. Work alone - others \_\_\_\_\_
4. Work to produce \_\_\_\_\_
5. Work to fix or repair \_\_\_\_\_
6. Outdoors \_\_\_\_\_
7. Indoors \_\_\_\_\_
8. Competition \_\_\_\_\_
9. White collar job \_\_\_\_\_
10. Physical labor \_\_\_\_\_
11. Computational or clerical \_\_\_\_\_
12. Responsibility \_\_\_\_\_
13. Security \_\_\_\_\_
14. Leader \_\_\_\_\_
15. Prestige \_\_\_\_\_
16. Make decisions \_\_\_\_\_
17. Adventure \_\_\_\_\_
18. Travel \_\_\_\_\_
19. Dependent \_\_\_\_\_
20. Work with a purpose \_\_\_\_\_
21. Persuasive \_\_\_\_\_

## READING THE CLASSIFIED SECTION OF A NEWSPAPER

### I. Objectives of Lesson

- A. To familiarize students with the abbreviated language of the want ads.
- B. To aid the students in the objective evaluation of various advertisements.
- C. To introduce students to the sources of job procurement.

### II. Presentation Outline

#### A. The People Who Advertise

##### 1. Employment Agencies

- a. Many jobs are listed by professional employment agencies. These agencies are in business to find jobs for people or else to fill jobs for companies. They can be a good aid in helping place people, but their ads can also be misleading. The advertisements often lead a prospective candidate to believe things which are not true. Employment agencies make money on the people they place, and this must be a fact known to job applicants.

##### 2. Private Employers

- a. Some companies prefer not to seek job candidates through an agency. They advertise in newspapers to reach many people that way. Their ads are usually quite honest but still should be read with a critical eye.

##### 3. Job Candidates

- a. People who are looking for jobs can place their own ads in a newspaper stating their desires and qualifications.

#### B. Reading The Classified Ads

1. Imagination and logic must be mixed to interpret some sections of advertisements. An abbreviated ad saves the source money.

## Reading the Classified Ads (cont.)

### 2. Examples of classified advertising:

- a. opty - opportunity
- b. \$5 - 10 M - \$5,000 to \$10,000 annually
- c. lic - license
- d. expd - experienced
- e. p/t - part time
- f. tvl - travel
- g. w/gd inventory - with good background
- h. clk - clerk
- i. \$\$ open - salary open to discussion
- j. coll pfd - college training preferred

### III. In-Class Assignments

#### A. Class Discussion

1. Discuss the merits of using the classified section for seeking jobs. Talk about the jobs that are not usually listed.

#### B. Group Work

1. Use the hand-out sheet on classified work. Group members are to collaborate and fill it in.



OCCUPATIONS HANDOUT SHEET

The Classified Section

NAME \_\_\_\_\_

I. Interpret these ads:

A. MEN  
Assmbirs, gen. fcty help. Perm. No Defense.  
Emp. Ben. \$2.15 hr. shift wk.

Ridge Machine & Tool Co.

1. Assmbirs, \_\_\_\_\_  
\_\_\_\_\_
2. gen. fcty help \_\_\_\_\_  
\_\_\_\_\_
3. perm. \_\_\_\_\_  
\_\_\_\_\_
4. No Defense \_\_\_\_\_  
\_\_\_\_\_
5. Emp. ben. \_\_\_\_\_  
\_\_\_\_\_
6. \$2.15 hr. \_\_\_\_\_  
\_\_\_\_\_
7. shift work \_\_\_\_\_  
\_\_\_\_\_

B. Trainees - Order Clerks

Exc. opty. for yng man w/tech bkgd. No exp nec.,  
H. S. grad Fee pd, Sal \$85<sup>+</sup>.  
Richardson Agency

1. Exc. opty \_\_\_\_\_  
\_\_\_\_\_

**The Classified Section (cont.)**

2. yng man \_\_\_\_\_  
\_\_\_\_\_
3. w/tech b!gō \_\_\_\_\_  
\_\_\_\_\_
4. No exp. ncc. \_\_\_\_\_  
\_\_\_\_\_
5. H.S. grad \_\_\_\_\_  
\_\_\_\_\_
6. Fee pd. \_\_\_\_\_  
\_\_\_\_\_
7. Sal. \$85 + \_\_\_\_\_  
\_\_\_\_\_

## OCCUPATIONAL HANDOUT SHEET

### Problem Solving On The Job

Circle the letter of your choice:

1. You work directly under a man who is lazy and unimaginative. Would you:
  - a. Take over some of your boss's work, and then make sure that everyone knows you're doing his work as well as your own?
  - b. Offer to help your boss with the work he is neglecting, but avoid saying anything to anyone else about this?
  - c. Concentrate on your own work and pay no attention to your boss's problems?
  - d. Some other solution?
  
2. You work for an energetic, intelligent man who is headed for a top position in the company. Would you:
  - a. Resign your job to avoid being overshadowed?
  - b. Understudy your boss to learn his methods?
  - c. Watch for your boss's errors and spread the word about his mistakes?
  - d. Some other solution?
  
3. Your boss begins turning over much of his work to you with the remark, "George, would you take care of this for me?" Would you say?
  - a. "Why should I do this guy's work?"
  - b. "I'll do this a lot better than he would just to show him up."
  - c. "I'll do a good job on these things, and the boss will remember when I'm in line for promotion."
  - d. Some other solution?

**Problem solving on the job (cont.)**

- 4; A very serious mistake has been made in your department. You were not directly involved, but your entire department is being held responsible. Would you:**
- a. Resign so this error won't blight your career?**
  - b. Use the office grapevine to make it clear that you were not responsible?**
  - c. Take the lead in reducing the potential damage in figuring out a way to prevent future errors?**
  - d. Some other solution?**
- 5. You are exceptionally good at fairly routine work and your boss recognizes this fact. To get a more responsible and better position, would you:**
- a. Tell your supervisor you are bored with your present position and are thinking of looking for another job?**
  - b. Arrange to meet the top-level officer of your company in the elevator and offer suggestions for major improvements which your boss has never thought of?**
  - c. Make it a regular practice to drop suggestions for improvements in the "Suggestion Box" after first discussing them with your immediate boss?**
  - d. Some other solution?**

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