

DOCUMENT RESUME

ED 074 482

CS 000 480

AUTHOR Viox, Ruth G.
TITLE Evaluating Reading and Study Skills in the Secondary Classroom. A Guide for Content Teachers Reading Aids Series.
INSTITUTION International Reading Association, Newark, Del.
PUB DATE 68
NOTE 62p.
AVAILABLE FROM International Reading Association, 6 Tyre Avenue, Newark, Del. 19711 (\$2.00 non-member, \$1.75 member)
EDRS PRICE MF-\$0.65 HC-\$3.29
DESCRIPTORS *Content Reading; *Evaluation Methods; *Evaluation Techniques; Informal Reading Inventory; Reading Diagnosis; Reading Skills; *Reading Tests; *Secondary Education; Standardized Tests; Study Habits; Testing

ABSTRACT

Suggestions are made for evaluating reading and study skills in secondary school content subjects. Evaluation procedures include (1) standardized reading tests, (2) teacher-made informal reading tests, (3) inventories of reading and study skills, (4) interest inventories, and (5) teacher observations. Suggestions are made and samples are shown for the development of informal reading tests and inventories in content subjects. Uses of classroom evaluation results are described for lesson planning, student motivation, student understanding, intrafaculty consultation, and teaching techniques for use with students who cannot read the textbook. References are included. (This document previously announced as ED 027 158.) (JB)

ED 074482

Reading Aids Series

VERNON L. SIMULA, *Editor*

Evaluating Reading and Study Skills in the Secondary Classroom

A Guide for Content Teachers

by

Ruth G. Viox

of

The Learning Evaluation Center

Kenmore Public Schools

Kenmore, New York

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRO-
DUCED EXACTLY AS RECEIVED FROM
THE PERSON OR ORGANIZATION ORIG-
INATING IT. POINTS OF VIEW OR OPIN-
IONS STATED DO NOT NECESSARILY
REPRESENT OFFICIAL OFFICE OF EDU-
CATION POSITION OR POLICY.



An IRA Service Bulletin

Published by the

INTERNATIONAL READING ASSOCIATION • Newark, Delaware

08300055

OFFICERS

1967-1968

President: H. ALAN ROBINSON, Hofstra University, Old Westbury,
New York

President-elect: LEO FAY, Indiana University, Bloomington, Indiana

Past President: MILDRED A. DAWSON, Sacramento State College,
California

DIRECTORS

Term expiring June 1968

ALTHEA BEERY, Cincinnati Public Schools, Cincinnati, Ohio

BROTHER LEONARD COURTNEY, FSC, The Christian Brothers,
St. Paul, Minnesota

GRACE McCLELLAN, Child Guidance Clinic of Greater Winnipeg,
Winnipeg, Manitoba

Term expiring June 1969

MARGARET J. EARLY, Syracuse University, Syracuse, New York

THEODORE HARRIS, Washington State University, Pullman,
Washington

EVE MALMQUIST, National School for Educational Research,
Linköping, Sweden

Term expiring June 1970

MILLARD H. BLACK, Los Angeles City School Districts, California

AMELIA MELNIK, University of Arizona, Tucson, Arizona

VIRGINIA D. YATES, Prairie District Schools, Prairie Village, Kansas

Executive Secretary-Treasurer: RALPH C. STAIGER, University of
Delaware, Newark, Delaware

Assistant Executive Secretary: RONALD W. MITCHELL, International
Reading Association, Newark, Delaware

Publications Coordinator: FAYE R. BRANCA
International Reading Association, Newark, Delaware

"PERMISSION TO REPRODUCE THIS COPY-
RIGHTED MATERIAL HAS BEEN GRANTED
BY **International**

Reading Assn.

TO ERIC AND ORGANIZATIONS OPERATING
UNDER AGREEMENTS WITH THE U.S. OFFICE
OF EDUCATION. FURTHER REPRODUCTION
OUTSIDE THE ERIC SYSTEM REQUIRES PER-
MISSION OF THE COPYRIGHT OWNER "

Copyright 1968 by the
INTERNATIONAL READING ASSOCIATION, INC.

All rights reserved
Printed in United States of America

FOREWORD

SECONDARY SCHOOL TEACHERS and reading consultants will find this booklet invaluable. Miss Viox has succeeded in producing a publication which deals with the *why* but puts its greatest emphasis on the *what* and *how*.

Much has been said about the need to evaluate reading performance in the various content areas. Few have been able to produce specific evaluation tools for classroom use. One of the problems has been, of course, that standardized reading tests could not be utilized to evaluate classroom performance from day to day, week to week, or even month to month. Informal reading inventories which demonstrate independent instructional and frustrational reading levels are significant for some purposes, but again do not pinpoint specific skills in particular content areas.

This publication is functional even if the teacher were to use Miss Viox's examples, but its greatest influence should be in helping the content area teachers, perhaps with the assistance of reading consultants, develop their own evaluative tools. Even in the content area of social studies, for example, several disciplines are involved and the patterns for writing in each will often call for different types of evaluation techniques.

This booklet should indeed help educators look at the process of reading as it is an integral part of each of the disciplines.

H. Alan Robinson
President, 1967-1968
International Reading Association

The International Reading Association attempts, through its publications, to provide a forum for a wide spectrum of opinion on reading. This policy permits divergent viewpoints without assuming the endorsement of the Association.

CONTENTS

	<i>Page</i>
Foreword	iii
Preface	vii
Evaluation of Reading and Study Skills	1
Evaluation Procedures	4
Preparation of Informal Reading Tests	8
Sample Informal Reading Tests in Specific Content Areas	20
Uses of Classroom Evaluation	52

P R E F A C E

MANY SECONDARY SCHOOL TEACHERS of content subjects have become increasingly concerned about those students in their classes who appear to have more academic ability than their actual achievement indicates. Often, it is the students' ineffective reading and study skills which pose the real handicap to success in school. If you are among those teachers who are searching for ways to determine whether your students possess the necessary reading and study skills to handle the materials of your course, you should then find in this booklet a wealth of usable suggestions. Every effort has been made to make these suggestions as *practical* as possible in order to conserve your valuable time.

This is not an attempt to convert you to "reading teacher." All suggestions can be adapted and incorporated into your daily plans with a minimum of changes in your teaching routine. We are most interested in assisting you in the evaluation of the reading and study skills of your students by finding their strengths and weaknesses *before* they run into difficulty in your course. Samples of several different types of inventories or pretests are included. They have purposely been kept short and no "magic formula" has been given so that each teacher may be free to develop his own devices for evaluation of his students.

You will notice that the evaluation procedures suggested do not dwell upon ways to determine an individual student's independent, instructional, and frustration levels—aspects which are often included in informal reading inventories at the elementary level. As students progress into higher grades, they usually read on many different levels, depending upon the style of the author, the background of the pupil in a specific subject, or his interest in the topic. Therefore, emphasis in this booklet is placed upon determining the *ability of students to succeed in their content subjects*, rather than upon a detailed "reading" diagnosis. If information is desired on ways to conduct more thorough reading diagnoses within the classroom, the reader is referred to the Reading Aid on *Informal Reading Inventories* by Johnson and Kress (5).

Chapter 1

EVALUATION OF READING AND STUDY SKILLS

● How Do Reading and Study Skills Fit into Content Subjects?

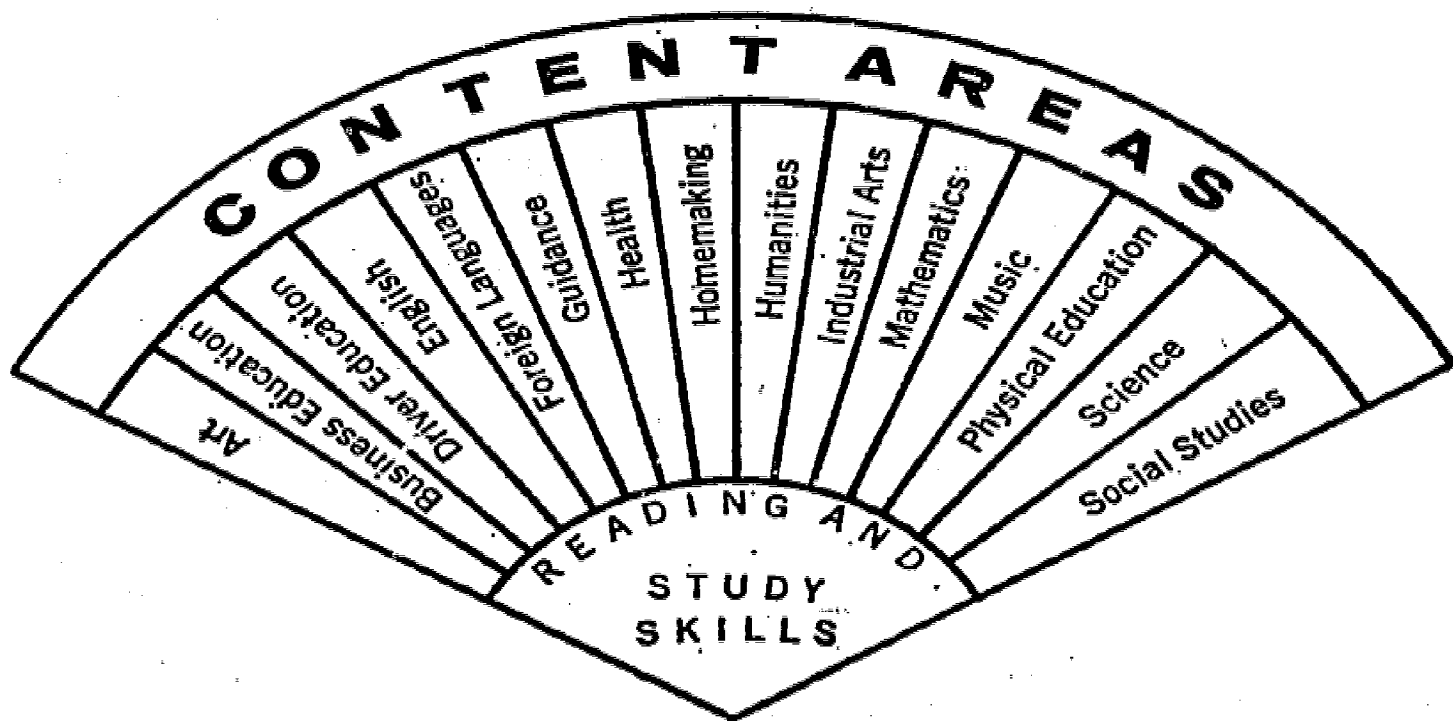
FOR A NUMBER OF YEARS we have been reading that "every teacher should be a teacher of reading." This saying, although true, has led to many misconceptions by secondary school teachers because they fear that someone is going to force them to relinquish their rights to teach their subject and, that in its place, they must teach basic reading skills. The general attitude has now changed so that the saying might read, "Every content teacher is responsible for teaching the reading and study skills of his particular subject." This attitude makes sense. Each subject demands different types of reading and study methods; therefore, English and reading teachers are not in a position to teach all of these specific techniques. They can provide some general methods, but the content teachers must then expand reading instruction and work on those skills which students need to succeed in the various content subjects.

This philosophy was explained very clearly by Dr. H. Alan Robinson when he stated that we should visualize the teaching of reading in the secondary schools as a fan which spreads through all major disciplines.* Because instruction in reading and study skills involves all teachers of all subjects at all grade levels, the teaching of these skills should be regarded as the duty of the entire faculty. Research points out that many pupils do not transfer reading and study skills from one subject to another. Therefore, the subject matter teacher must work on those skills which are pertinent to his subject. A school-wide program which focuses on the needed reading and study skills in the content subjects can result in raising the

*Taken from the speech, "Reading in the Total School Curriculum," by H. Alan Robinson, delivered at the seventh annual conference of the Niagara Frontier Council of the International Reading Association, Buffalo, New York, October 7, 1967.

general academic level of the school. Such a program can also make teaching more effective and instruction more meaningful for students (19).

The diagram below illustrates the concept of a school-wide reading and study skills program where *all teachers of all subjects work together*.



● Why Take Time to Evaluate Reading and Study Skills in Content Subjects?

Many teachers feel a pressure to cover a prescribed course of study within a limited time. If time is taken to evaluate student abilities to read and study, how can the teacher then complete his teaching? The answer is really quite simple. It is usually not necessary to spend much extra time to conduct an informal evaluation in a specific course. If a teacher is able to identify those students who will not be able to read or understand classwork and assignments, if he can locate the students who might have difficulty following directions for specific tasks, if the teacher can predict that some girls will cut a pattern incorrectly when extra help is not given for reading directions before they begin cutting, if the teacher knows that the terms which he uses in industrial arts are too difficult for his students to recognize in print, if he knows that his students are unable to

read maps or time lines, wouldn't it be better to take a little extra time to help the students *before* plunging into a new unit of work? The same theory holds true for locating students who are proficient in their work. Why bore them with work which poorer readers need when good readers could be working on a related project or doing reference reading which would challenge them?

A good classroom teacher can be compared to a good doctor who would never prescribe the same medicine for all patients before first finding out what they needed, if anything. Teachers have the same responsibility. Why "prescribe" the same teaching for all students when some may need different types of instruction and others who are very "healthy" can learn without it?

After reading this booklet and examining the samples of teacher-made informal tests, each content teacher will realize not only the importance of evaluating reading and study skills of students, but he will also notice the ease with which this can be accomplished. In fact, many teachers may be pleased to find out that they already have been incorporating such techniques in their regular teaching, although they did not label it "evaluation of students." In the long run, when students' marks begin to improve, when their attitudes toward a subject become more positive, and when real learning takes place, content teachers will find their rewards in having applied some techniques of classroom or individual evaluation.

Chapter 2

EVALUATION PROCEDURES

● Using Standardized Reading Tests

WHEN WE SPEAK of evaluation, we usually think first of a standardized reading test. A standardized reading test will not, however, provide as much information as other methods of evaluation, such as a teacher-made test which is based upon the actual materials which students will be reading in class. The one value of a standardized reading test is that it can provide a teacher with a *general* picture of how the whole class compares with others. Using local system or school norms will be even more meaningful than publisher's norms.

Standardized reading tests typically appraise the general skills of rate, vocabulary, and comprehension. If a teacher has these scores available, he can use this information to better understand his students. He may notice that some of his students are poor test takers as indicated by their performance on the standardized test. Or he may find that other students are good guessers and perform better on a test than they do in class. Still other students may score high on a standardized test but not achieve in class because of disinterest in school, or problems at home. Or perhaps the test does not actually measure how well the students can read in the specific subject being taught. When these conditions are taken into consideration, then, standardized tests are useful as rough indicators.

● Using Teacher-made Informal Reading Tests

A very practical way to evaluate the reading and study skills of students in a particular subject is to use an informal test which the teacher prepares and administers at the introduction of the new course or before beginning a new unit of work. Construction and uses of such teacher-made tests, with examples which can be used as models, will be discussed in the chapters which follow.

● Using Inventories of Reading and Study Skills

Some teachers have been very successful in getting students to evaluate their own abilities to achieve in a certain subject. The content teacher prepares a list of those skills which are needed to learn his subject, or he may use a study skills checklist similar to the one which has been prepared by Preston and Botel (10). The teacher then asks each student to rate himself according to his degree of proficiency in each skill. The results may be tabulated through class discussion, and the students and teacher may arrive at a decision as to which skills will need extra attention. Putting the responsibility onto the student works very well, especially in senior high school. The specific reading and study skills for each content subject are illustrated in Chapter 4 of this booklet.

● Using Interest Inventories

Secondary school students often complain that they are doing poorly in a particular subject because it is boring or because they cannot see any reason for taking it. Teenage interests are far removed from studying ancient history or atomic structures. If the teacher is aware of this at the beginning of the course or unit, he can plan ways to motivate students and to help them see how the subject is related to their personal lives. An interest inventory will also help identify students who have special talents or abilities which can be capitalized upon to stimulate class discussions or interest in individual projects. *When students feel personally involved in an activity, learning takes place.*

● Observing by the Teacher

A good teacher is constantly observing his students for their reactions to class presentations, their ability to read the textbook or complete an assignment. The teacher also notes the general morale of the class. When students become bored or in trouble with the reading of a subject, a personal talk with them will often reveal the cause of their problems. When the difficulty is too serious for the classroom teacher to handle, he may want to refer the student to a guidance counselor or to the reading teacher for special help, if these services are available in the school.

● Obtaining Special Information about Students

In addition to watching for reactions to the content material as it is being presented, the teacher should obtain the following types of information about students who are having problems in class:

Previous learning experience: Did the student have difficulty in this subject in the past? Has he developed a general indifference toward the subject or school? Are his basic fundamental tools too weak to learn the material which is presently being taught? Will he need special review or drill?

Home background: Does the student come from a home where there are limited opportunities for development of vocabulary, few reading or reference materials, little interest in cultural activities in the community? Does he come from a broken home? Are there family problems which are upsetting him?

Physical problems: Does the student have a vision or hearing problem which is interfering with his learning? Does he get adequate food and rest? Does he have physical problems which make his thinking slow or his writing difficult? Is he on medication or taking drugs?

Emotional problems: Is the student so upset emotionally that learning is impossible? Is too much pressure being placed upon him by his parents or teachers to achieve beyond his capacity? Is he sitting too complacently in class not causing the slightest disturbance but still not learning because his personal problems are constantly on his mind? Is he acting up in class to get attention from his peers because the work is too difficult or he feels inadequate in class?

● Teaching and Testing

One of the easiest ways for a content teacher to evaluate student performance is through application of *good teaching methods*. Whenever a teacher asks a question, it should have a purpose. Perhaps a teacher wants to find out if an individual student, or the entire class, understood the main idea of a passage which was read. The teacher might then give an oral or written assignment such as, "In one sentence, state the main idea of the passage which you just read." Each time a social studies teacher expects his students to remember the date of an important happening in history, he can ask them to relate this date to other important events. Can they grasp time concepts? An art teacher may present a picture for his

students to observe and then ask for their reactions. As students reply orally, the teacher can listen to their vocabulary usage. Are students familiar with the terms which the teacher expects them to use in art, or must these words be taught as new words?

The results of quizzes or tests can also be used by a classroom teacher to evaluate students as well as teaching techniques. Were lectures too wordy for students to understand? Did students know how to take notes from the lectures in the first place? Did the teacher assume that students understood certain concepts without clearly explaining them? Did students do poorly on the written test because they could not follow directions, or were the questions too ambiguous?

Evaluation is a daily activity. Evaluation never stops until the course is completed. Dr. Roy Kress (7) has stated this very effectively in his article, "Identifying the Reading Difficulties of the College-Bound Student."

In a very real sense, the master teacher gives a group informal test with each lesson that he teaches in the classroom. Diagnosis is an integral part of his teaching because he realizes that without it he cannot know *what* and *how* to teach. Only when he feels that he still lacks necessary information about a student's grasp or application of certain skills and abilities does he feel it necessary to rely on individual tests.

Chapter 3

PREPARATION OF INFORMAL READING TESTS

THERE ARE SEVERAL types of informal reading tests which can be used by all content teachers in all of the courses they teach. 1) Some teachers begin their course with a short pretest or survey to determine the knowledge background or the skill-readiness of their students before introducing new work. 2) Other teachers prefer to wait until they introduce a textbook or a new unit of work before they introduce an informal reading survey. 3) At times teachers may wish to give a brief informal test to ascertain if their students are proficient in a specific reading or study skill. This type of test can be administered any time during a course. 4) Another type of informal reading test is given individually to students who are having difficulty with the reading or study techniques of the course. 5) Finally, all content teachers can use informal tests which determine the appropriate instructional level of materials for each pupil.

Each of the five types of informal reading tests are described below. General directions for the preparation of these tests are explained. Several models of each type are illustrated.

● Beginning-of-Course Survey

The purpose of administering an informal test at the beginning of a course is to help the students become familiar with the general format of the course and to show them how to handle their textbook or other references. The teacher cannot assume that all students will know what to do with the table of contents or index in the book, or that they will be able to read the experiments, maps, or diagrams without help. The teacher must find out as early in the course as possible whether his students are aware of the study aids which are provided for their use and whether they know what to do with these aids. Therefore, an informal test similar to the model which follows can be given during the first days of class. The results should be discussed with the students and no marks should be given.

Giving such a test will not excuse the teacher from reviewing the use of the textbook periodically because students need constant reminders to make good use of their texts and other reference materials. The following steps may be used as guides when preparing a beginning-of-course survey:

Step 1: Peruse the textbook or other reference materials which will be used during the course. Then make a list of the study aids which students should know how to use. Include pictures and diagrams, as well as aids such as the table of contents, index, glossary, dictionary, and encyclopedia.

Step 2: Prepare questions or directions which require students to actually use their books to find some of the answers. The questions may be placed on the chalkboard or they may be dittoed or mimeographed. Include two or three short passages which students must read silently and answer questions on the material in order to determine ability to use comprehension skills.

Step 3: Tell students before they begin the course that they should a) determine how well they can read and understand the books which will be used and b) learn about the number of different study aids which are provided to make reading and studying easier.

Step 4: Observe students as they take the test. Watch for those students who finger through the textbook randomly with little idea of where to look for specific study aids. Identify those students who work well and with a purpose, those who are unable to complete the test because it is too difficult, those who work too fast and inaccurately. Students who display frustration should also be noted, since they will require additional help by the teacher during the course.

Step 5: Have students check their own papers through class discussion. Ask students to explain how they arrived at their answers. Make students handle the book as much as possible so that they will begin to feel comfortable with it. Show them that the work is not as difficult as they may expect it to be. Collect papers and study responses to determine skills which must be reviewed or taught. Do not give a grade.

Step 6: Each time students use their textbooks, hold them responsible for using them correctly.

Step 7: If reference books or other types of materials will be used in the course, prepare a second brief informal test to ascertain students' ability to use these materials. This task could also be included as part of the first test.

Test to introduce textbook

Beginning-of-Course Survey: Model #1

Purpose of test: To familiarize students with their new textbook and to locate students who need instruction in using it.

Directions to student: Answer the following questions as rapidly as you can. Make your answers brief. Use the textbook to find the answers. You have _____ minutes to finish.

1. How many units are there in this book?
2. When was this book copyrighted? Why is it important to know this fact?
3. Who wrote the book? Does the author appear to be an authority in the field?
4. On what page can you find information about _____?
5. What is the number of the Unit in which the Chapter on _____ can be found?
6. On what page can you find a diagram of _____?
7. What does the map on page _____ tell you?
8. According to the chart on page _____, what U. S. possession has the largest area?
9. Where in the book can you find definitions of special terms?

Test to determine background of students

Beginning-of-Course Survey: Model #2

Purpose of test: To find out what students already know about a topic before starting a new course.

Directions to student: You have already studied about (name of topic) in the lower grades. Let's find out how much you remember about this subject before our new course is started. Answer the following questions the best you can:

- | | |
|----------|----------|
| 1. _____ | 4. _____ |
| 2. _____ | 5. _____ |
| 3. _____ | 6. _____ |

Test to determine when and how students learn best

Beginning-of-Course Survey: Model #3

Purpose of test: To find out when students study best and how they learn.

Directions to student: Complete the following sentences in your own words:

1. I study best when _____.

2. I learn best when _____.
3. The subject I like best is _____ because _____.
4. The subject which is hardest for me is _____ because _____.

● Informal Test Based on a Textbook or New Unit of Work

Usually a content teacher is most concerned with how well his students will be able to read and comprehend the textbook, with how well they can take notes from lectures, and with how they go about doing assignments and preparing for and taking examinations. An industrial arts teacher does not need information about his students' ability to scan a line of poetry or to draw inferences from a novel they may be reading in English class. Neither does the teacher wish to know if students are familiar with the kings and queens of England or whether they are able to read a passage at five hundred words a minute. The teacher may be interested, however, in knowing if the students' background in mathematics is strong enough for use in his industrial arts class. The teacher may also want to know if students have any previous background for the unit, and if they will be able to understand the new terms and concepts which will be taught. Therefore, the teacher will base his informal test on the books which the students will be using in class. Usually a brief test before a new unit is introduced will suffice. The following describes the construction of such an informal test:

Step 1: Determine what you would like the students to get from a textbook assignment or a unit of work. Limit your list of purposes to the important reading and study skills. Be sure to include some vocabulary and concepts which will be taught.

Step 2: Select about five hundred to one thousand words from the textbook. Construct a brief test which includes the skills which you listed.

1. When testing to determine whether students understand the author's message, allow them to keep their books open during the test and ask an open ended question such as, "What did the author say?" Insist that students answer the question in their own words rather than copying from the text.
2. When checking for memory after reading, have students close their books before they answer the questions.
3. When testing for each student's general rate of reading, record on the chalkboard the time, as it passes, in five second

or longer intervals. Ask the student to write on his paper, as soon as he finishes reading, the last number recorded on the chalkboard. A less formal method would be simply to observe students as they finish reading and make notations of fast and slow readers.

Step 3: Observe students as they read and take the test. Note those students who are unable to follow directions or those who ask for help during the test. Observe students for signs of tension, inability to complete the test, or poor use of the textbooks. Note general study methods.

Step 4: Have students check their own answers through oral discussion. Challenge their answers. Demonstrate how they could have read the assignment more effectively. Ask students to add to your suggestions. Collect papers and make notations of weak areas for review later while the unit is being taught. (Do not give a grade.)

General test of students' understanding of author's main idea

Test Based on Textbook or New Unit of Work: Model #4

Purpose of test: To determine how well students comprehend an author's main idea.

Directions to student: Read pages _____ to _____ in your text. Then briefly state the main idea of the selection in your own words.

Test of students' ability to comprehend a reading assignment

Test Based on Textbook or New Unit of Work: Model #5

Purpose of test: To find out how well each student can read and understand an assignment in a textbook when no preparatory help is provided.

Directions to student: Turn to page _____ in your text. Read from pages _____ to _____, the way you ordinarily read when you do your homework. Then write the answers to the questions which follow. You may (or *may not*, depending upon teacher's purpose) refer to your book for answers.

Part I: Vocabulary

The following words were used in sentences and explained in your text. Write your definition of each word. Be sure to base your answer on the way each word was used in the book.

1. _____

2. _____
3. _____

Part II: General Comprehension

It is important to remember what you read. Answer the following questions which are based on the passage you read.

1. _____?
2. _____?
3. _____?

Part III: Critical Reading

1. What did the author mean when he said "_____?"
2. Do you agree with him?
3. Give one or two good reasons for your answer.

Part IV: Study Skills

Answer the following questions about the way you read this assignment.

1. Did you have trouble pronouncing some of the words?
2. Did you have trouble understanding the meanings of some of the words?
3. Did you have trouble understanding what the author said?
4. Did you skim through the reading assignment first in order to get a general idea of what it was about?
5. Did you have some questions in your mind about the assignment as you were reading it?
6. Did you take any written notes even though you were not instructed to do so?
7. Did you review as soon as you finished reading the assignment as an aid in remembering it?

If you answered *yes* to questions 1 and 2, you will need help on pronunciation and vocabulary in this unit.

If you answered *yes* to question 3, you will need help on comprehension.

If you answered *no* to questions 4, 5, 6, and 7, you should learn to apply a study method such as SQ3R.

Test to determine students' weaknesses in study skills

Test Based on Textbook or New Unit of Work: Model #6

Purpose of test: To allow students to express opinions about their study skills and where they need help.

Directions to student: Answer the following questions as accurately as you can:

1. Are you satisfied with your marks in this subject?
2. Do you have trouble with the vocabulary of the textbooks?
3. Do you have trouble remembering what you have read after one reading?

4. Do you have trouble remembering for tests?
5. Do you have trouble taking notes from lectures?
6. If you have had any other study problems in this subject, please explain them.
7. What suggestions do you have for making this course more meaningful to you?
8. What can you do to help yourself to do better in this course?

● Informal Test of Specific Skills

There may be times when a content teacher will want to know if his students are proficient in a specific skill which is vital to the mastery of the new material they are about to learn. Rather than construct a longer test which requires the reading of a number of pages in the textbook, the teacher can save time by giving a short test which measures his students' strengths or weaknesses in that one skill. For example, a science teacher is about to start a unit which includes many new words containing roots, prefixes, or suffixes, or suffixes which help students arrive at the meaning of the words. The teacher can test his students' knowledge of the meanings of these word parts and their ability to use the information to figure out the meanings of the scientific terms. This type of testing can be done orally or through a written quiz. This step is really the beginning of teaching the vocabulary of the unit, and it will help students realize how the word elements which they learned in English or foreign language classes can also be used in other subjects. The following steps may aid in the preparation of a test on a specific skill:

Step 1: Decide upon the skill or skills which you wish to evaluate.

Step 2: Using the samples given in this booklet or your own testing procedures, construct a brief test which requires the use of the skill or skills. Take actual passages from textbooks when this is feasible or duplicate material which is similar in content and format.

Step 3: Explain the purpose of the informal test and the skill or skills which are included.

Step 4: Observe students as they take the test. Note how each pupil reacts to the testing situation.

Step 5: Go over answers through oral class discussion. Ask students to tell *how* they arrived at their answers. Add additional suggestions. This may be all that is needed to review a particular skill unless pupils do poorly on the test. Collect papers and make notes of general class weaknesses and individual deficiencies.

Test based on new vocabulary

Test of Specific Skill: Model #7

Purpose of test: To ascertain those words which students know and do not know before introducing a new chapter or unit.

Directions to student: The following words are used in Chapter _____ (or Unit _____) which we will be starting soon. In the list below, the *page number* tells where each word can be located in the textbook. Find the word and read it *as it is used in your textbook*. Then write what you think is its correct definition.

<i>Page</i>	<i>Word</i>	<i>Definition</i>
_____	_____	_____
_____	_____	_____

Test of main ideas

Test of Specific Skill: Model #8

Purpose of test: To determine whether students can understand the main ideas stated by the author in various sections of the textbook.

Directions to student: The author of our textbook has a style of his own for presenting the main ideas of a section in a chapter. Follow these directions carefully. You have _____ minutes to finish.

1. Read section _____ from pages _____ to _____.
What is the main idea of this section? Underline the correct answer from the choices which follow:
a. _____
b. _____
c. _____
d. _____
 2. Next read section _____ from pages _____ to _____.
Choose the one sentence which states the main idea of this section.
 3. Now read section _____ from pages _____ to _____.
State in your own words the main idea of this section.
(Note to teacher: Question #1 is easiest; question #3 is hardest for students to answer.)
-

Test of outlining skills

Test of Specific Skill: Model #9

Purpose of test: To find out the methods students use to outline a section of the textbook.

Directions to student: After you have read a section in your textbook, it is often helpful to outline briefly the main points in your own words. It is not necessary to follow a formal outlining format. Use the style which helps you most when reviewing your notes or studying for examinations.

Turn to page _____ in your text. Read pages _____ to _____. Then outline what you have read, doing it the way you ordinarily outline a reading assignment in this subject.

Test of general rate of comprehension

Test of Specific Skill: Model #10

Purpose of test: To determine students' general rate of comprehension in a specific subject.

Directions to student: Read pages _____ to _____ the way you ordinarily read your homework assignments. As soon as you have finished, close your book, look at the chalkboard, and write on your paper the last number which has been recorded there. (The teacher is writing on the board the time, as it passes, in one minute intervals.) Keep your book closed. When all students have finished, you will be asked to divide the number of minutes you were reading into _____ (the approximate number of words in the selection) to obtain your general reading rate. Then answer the questions without looking into your book.

Directions to teacher: When all students have finished reading, they then take a comprehension test based on their reading. The questions should include reading for details, main ideas, and inferences. Answers are checked, rates are computed, and each student gets a "general" idea of how his reading rate of comprehension compares with other students in the class on an assignment in this specific subject. Reading rates should change according to the type and complexity of materials being read.

● **Informal Test for Individual Evaluation**

Content teachers are usually too pressed for time to devote much time to individual evaluation. However, some of the suggestions which are given for group testing can be used on an individual basis. For example, if one or two students in class appear to be having a great deal of difficulty understanding the concepts which are presented, the teacher may wish to know if these students can pronounce the new terms and if they know the meanings. The stu-

dents can be asked to meet with the teacher to go over a list of words and to ask questions about materials they do not understand. The content teacher should not feel responsible for providing instruction in remedial reading, however, since this requires the help of a person who is trained in this area.

Individual evaluation can also be conducted by asking a specific type of question in class. The student's response will give the teacher an indication of why he is having difficulty. The following steps can be followed when planning individual evaluation:

Step 1: Decide upon the skill or skills to be evaluated.

Step 2: When possible, give the directions for the informal test on a tape recorder. The student can then work independently with headphones and without disturbing the class. Answers may be written out or recorded on tape for the teacher to audit later.

Step 3: Arrange for an individual conference to go over the student's responses and to provide as much help as possible in weak areas.

Step 4: If the student has serious learning problems, try to refer him to a guidance counselor or special reading teacher if these services are available.

Test of pronunciation and comprehension of technical terms

Test for Individual Evaluation: Model #11

Purpose of test: To determine if individual students can pronounce and understand technical terms.

Directions to student: The following technical terms are used in Chapter _____ or Unit _____. Study each word carefully. When you are ready, pronounce the list of words for your teacher (or record on a tape). If you are unable to pronounce a word, say so, and you will receive help later on. Then try to give a meaning for each word you can pronounce.

Test of student's comprehension

Test for Individual Evaluation: Model #12

Purpose of test: To determine if a student is able to comprehend the main ideas and important details of an assignment.

Directions to student: Read pages _____ to _____ in your textbook. Describe the one main idea of the passage. Then list the important details. Try to keep them in the correct order. You may outline the material first if you wish.

Test of student's listening comprehension

Test for Individual Evaluation: Model #13

Purpose of test: To ascertain how well an individual student can learn through listening.

Directions to student: Listen attentively to the lecture which has been put on tape. Then prepare a short study outline based on what you heard. (The teacher may prefer to substitute questions for the study outline.)

● **Informal Test to Determine Instructional Level**

Most content teachers who are required to use a prescribed textbook are not as concerned with the instructional level of their text as they are with helping their students get through the course. In secondary school, students have many reading levels, depending upon the interest of the material, the teacher, and the subject. A sophomore boy who is interested in mechanical devices or in science may be able to read and comprehend some books in these areas which are written on a college level. However, this same student might find English so difficult that he will have to struggle to read a literature book which is written on a junior high school level. The same situation might be true for a student who likes or dislikes a subject or a teacher. The study of world history may sound boring to a sophomore girl, but her teacher may make the subject so interesting that the student soon becomes a history enthusiast in spite of her previous personal reactions toward the subject.

It is almost impossible to say that a student is reading on the same level for all subjects. Teachers who prefer to vary instruction to assist the poorer readers may try to locate books which their students can read when the text is too difficult. These teachers have found that teaching through the *unit method* allows students to choose reading matter on various levels without causing embarrassment to the poorer reader.

To locate books which individual students can handle, some teachers have several different textbooks in their rooms. They "try out" the book with a student to find out whether he can read and comprehend it, or they let the student choose his own book. This technique of selecting the appropriate book appears to work better in secondary school than trying to find a student's specific independent, instructional, and frustration levels.

If a student has considerable difficulty reading passages orally from the text when asked to locate answers to specific questions, he has reached his frustration level. The teacher must then try to steer the student to easier reading materials or to show him how to learn through methods which do not require the use of his assigned textbook. The following steps can be followed to help determine the appropriate instructional level of material for a student to use:

Step 1: Choose two or three textbooks which deal with the content of your area but which are written on different grade levels. If a readability formula cannot be applied to determine the approximate reading levels of the texts, the publishing companies can often supply this information.

Step 2: Mark a short passage in each textbook. Prepare a set of questions based on each passage to test vocabulary, comprehension of author's style, or other skills which are needed to achieve in your course.

Step 3: Arrange for a time when an individual student or a number of students can read the textbook passages and do the follow-up tests. If only one student is tested at a time, he can use the textbooks. However, if several students are to be evaluated at the same time, the passages and questions need to be reproduced.

Step 4: Check answers with the student or students. Arrive at a decision as to which book or books are the best for each student to use.

Chapter 4

SAMPLE INFORMAL READING TESTS IN SPECIFIC CONTENT AREAS

● ART: Reading and Study Skills to Be Developed

The reading and study skills which are used in art classes will vary according to the types of activities which are carried on, the materials and techniques used, and the general philosophy of the teacher. The following basic skills are usually developed in all areas of art education: read and understand technical terms; observe carefully to appreciate form, color, design, etc.; follow directions exactly, both written and oral; take notes when necessary; read about lives of artists; understand art criticism; read the history of art.

Test to evaluate students' powers of observation

ART: Sample Informal Test #1

Purpose of test: To evaluate students' powers of observation.

Directions to teacher: Prepare a picture, object, or other interesting display for the class to observe for a specified time. Direct students to list on their papers as many things as they can notice about the object which they are viewing.

Directions to pupil: In art it is essential that you learn to be a good observer. Study this display for _____ minutes. As you are observing it, list on your papers all the things which you notice about it. We'll compare your lists at the end of the time limit. Use descriptive words if you can.

Vocabulary pretest based on textbook

ART: Sample Informal Test #2

Purpose of test: To evaluate students' knowledge of vocabulary words which they will be reading in their textbook.

Directions to teacher: The following vocabulary pre-test is based on the textbook *Rainbow Book of Art* by Thomas Craven (World Publishers, 1956).

Directions to student: The words in column I are taken from your text. For each word in column I, find a word from the other columns which best shows the meaning of that word. Circle your answers.

I	II	III	IV
prominent	small	high	important
atmospheric	dull	clear	hazy
illusion	fact	mistake	light
rendered	sold	fried	explained
visual	sight	audible	dull
confusing	trouble	arrange	disorder
contrast	confuse	difference	control
vibrating	vivid	violating	motion
animation	activity	animality	name
composed	moved	made	motion
spectrum	opaque	neutral	color
facets	roads	walls	sides
lozenges	loge	disk	lounge
pigment	color	cement	hog

Test of following oral directions

ART: Sample Informal Test #3

Purpose of test: To determine how well students can follow oral directions.

Directions to teacher: Prepare a set of directions for making an object.

Directions to student: How well can you follow oral directions? Listen carefully as I give you directions for making a tissue rose. When I finish, if you have followed each step correctly, your creation should be perfect. I'll repeat each step just once.

Materials needed: colored tissue paper

1 dowel or stick, 18"-25" long
 cardboard circle, 10"-12" in diameter
 rubber cement
 tape

- Step 1: Cut 6 tissue circles with different diameters, from 2" to 6".
- Step 2: Fold circles in half 4 times to make 16 sections. While folding, cut decorative petal shapes, making each shape different for a more interesting effect and being sure not to cut through center. Unfold.
- Step 3: Starting with the largest, place one shape on top of another, graduating the sizes so that the smallest is on top.

- Step 4: Glue together at center of each shape. Be sure to glue so that the points of each layer touch the center folds of the layer underneath.
- Step 5: Cut a circle of cardboard slightly smaller than the diameter of the largest flower shape and glue rose to cardboard at center point. Allow petals to stand freely, and be sure that the cardboard is completely covered by the rose.
- Step 6: Tape dowel or stick to back of cardboard. You should now have a pretty, decorative rose which can be used at parties, etc.

● **BUSINESS EDUCATION: Reading and Study Skills to Be Developed**

The subjects which come under the heading of business education usually include such courses as accounting, clerical bookkeeping, bookkeeping, business English, business mathematics, commercial law, sales, business management, stenography, and typing. In order to work in these areas, it is necessary to be able to

- recognize symbols quickly;
- read in phrases quickly;
- think rapidly;
- follow directions accurately;
- understand technical terms;
- comprehend material which is common in business subjects;
- spell correctly;
- memorize;
- read graphs, charts, and diagrams; and
- skim.

Test to determine speed and accuracy of visual perception

BUSINESS EDUCATION: Sample Informal Test #1

Purpose of test: To find out how quickly and accurately students can recognize symbols.

Directions to teacher: Prepare a number of cards which are large enough to be seen by the entire class. On each card put a symbol which students will be learning in class.

Directions to student: I am going to flash some cards which contain letters and numbers (or other symbols). I will show each card to you for one second. Look at the card when I say, "Look." As soon as I lower the card, write on your paper what

you saw. This practice should help you to recognize symbols more quickly and accurately.

Follow-up of test: Students should mark their own responses to find out how well they did. They can be instructed to try this type of practice outside of class to improve their speed in typing or shorthand. Later, phrases might be flashed to show students how they can look ahead when they type, thus making their typing more rhythmical and accurate.

Test of ability to learn new technical terms independently

BUSINESS EDUCATION: Sample Informal Test #2

Purpose of test: To identify the technical terms which students do not know before beginning a unit on "You As a Producer."

Directions to teacher: Pretend that you are the students in your class. Look over the next unit which you will be teaching. Then list all of the unfamiliar technical terms and new concepts. Prepare the following type of informal test, using some of the terms which you listed. This sample is based on *General Business for Everyday Living* by Price, Musselman, and Weeks (McGraw Hill Book Co., 1960).

Directions to students: In our next unit we will be learning the pronunciation and meaning of the following terms. Let's find out how many you can learn by using your textbook. The page on which the term is found is listed before it. Find the term, read the sentence or sentences around it, and decide upon its definition as it is used in the sentence. Then write a good definition for the term.

<i>Page</i>	<i>Word</i>	<i>Page</i>	<i>Word</i>
19	producers	23	mass production
21	profit	23	large-scale
22	salary	23	division of labor
22	commission	24	synthetic
23	natural resources	25	technology

Test to analyze ability to interpret a bar graph

BUSINESS EDUCATION: Sample Informal Test #3

Purpose of test: To analyze students' ability to interpret a bar graph.

Directions to teacher: Some informal tests can be taken directly from a textbook and used as a pretest. The following is taken from *General Business for Everyday Living* (McGraw Hill, 1960).

Directions to student: Turn to page 11 in your text. Study the bar graph carefully. Then write the answers to questions a, b, c, d, and e which are below it.

● DRIVER EDUCATION: Reading and Study Skills to Be Developed

It is quite obvious that students must possess a number of reading skills in order to pass the written test which is required in some states for obtaining a driver's license. There are, also, some less obvious skills which a driver must apply every time he drives. The main skills which are important in this area are ability to

- follow directions,
- perceive shapes of road signs quickly,
- read road signs,
- read and remember rules for good driving,
- concentrate,
- think fast and use good judgment, and
- read a driver's manual or traffic ticket.

Test of pronunciation, vocabulary, diagram reading, and comprehension

DRIVER EDUCATION: Sample Informal Test #1

Purpose of test: To find out how well students can read and comprehend material related to driver education.

Directions to teacher: Using the driver's manual which your students will be studying, prepare a test which will determine if they can a) pronounce the words, b) understand the vocabulary, c) read diagrams, and d) understand what they read.

Directions to student: Before we begin our driver education course, let's find out how well you can read the driver's manual. Using your *New York State Driver's Manual*, read pages 39 to 42. Then follow the directions below.

I. Pronunciation: Study these words and be able to pronounce them. Use a dictionary if you need to.

pedestrian

monoxide

ignition

ventilation

survey

hitchhiker

dangerous

monotony

judgment

apparatus

II. Meaning: Write a good meaning for the following words:

pedestrian

monotony

survey

tailgating

ventilation

III. Reading diagrams: Study the diagram on page 41. Then in your own words explain what it tells you.

IV. Comprehension: Be able to answer orally the questions on pages 61-63 under "Sensible Driving" after reading this section in your manual.

Test of visual perception and memory

DRIVER EDUCATION: Sample Informal Test. #2

Purpose of test: To find out if students can perceive the different shapes of road signs and if they can remember them.

Directions to teacher: Prepare a series of cards on which you have drawn some road signs, using those on pages 32 and 33 in the *New York State Driver's Manual* as models. Make each card large enough for all students to see.

Directions to student: I am going to flash some cards which show road signs. Study each card as I show it for one second. As soon as I lower it, on your paper draw the shape of the sign and print the words that belong on it.

● **ENGLISH LANGUAGE ARTS: Reading and Study Skills to Be Developed**

In many school systems the English-language arts teachers are charged with the responsibility of teaching the basic reading skills which secondary school students should master. On the one hand this makes sense, inasmuch as all students must take English. However, the language arts teacher is not in a position to teach all students how to read problems in math, experiments in science, or patterns in homemaking. Therefore, the teaching of reading and study skills in language arts usually narrows to two areas: a) basic reading skills and b) reading literature. Certain skills should be developed in these two areas of language arts.

Basic reading skills. Students should be able to sound out words; analyze words through the study of roots, prefixes, suffixes, and syllabication; use more mature types of context clues; learn new words through the study of derivation and word origins; use the dictionary and other reference aids; read for main ideas and related details; get meanings of sentences, paragraphs, and longer selections on a more mature reading level; read critically; follow a

sequence and organize ideas into an outline; summarize; take notes from a book or lecture; recall a pattern used by an author; read aloud with fluency and good expression; adjust reading rate to material being read; and skim efficiently.

Reading literature. In order to read *short stories and novels*, students must be able to skim an article before doing a thorough reading; get an overall picture of setting, plot, and action; appreciate the author's style of description; and understand sequence of development. In order to read *poetry*; students must be able to read carefully and thoughtfully; observe punctuation; hear the music of words; and visualize. In order to read *dramas and plays*; students must be able to note key words; project self into a scene; note conversational style; and read dialogue. In order to read *essays*, students must be able to understand the author's style; draw inferences; and read critically.

Inventory of context clues, sentence reading, main ideas, details, and critical reading

ENGLISH: Sample Informal Test #1 (Basic reading skills—junior high school level)

Purpose of test: To find out how well students can a) use context clues, b) understand sentences, c) get main ideas of paragraphs, d) read for specific details, and e) read critically.

Directions to teacher: Read the directions orally with students. Answer questions about directions, but do not teach skills. If students are unable to complete parts of the inventory, instruct them to do as much as they can. As students are writing answers, observe them for a) lip reading or finger pointing, b) tension, c) vision problems, d) concentration, e) following directions, and f) other reading habits which might interfere with learning.

Directions to student: The purpose of this inventory is to help you and your teacher find out how well you can read. You will need a sheet of paper and a pen or pencil. Read all directions on the inventory before starting to write your answers. If you are not sure of the answer to a question, give the best answer you can.

A. USING CONTEXT CLUES

Number from 1 to 5 on your paper. Read each sentence below and think about the italicized words. These are words which you may not know, but the sentences should help you figure out their meanings. Then choose the right meaning from the words which follow the sentences and write just the correct letter on your paper.

1. The quiet, peaceful *halcyon* days of the summer vacation have passed.
(A) swimming (B) calm (C) windy (D) noisy
(E) unhappy
2. In New York State many industries have built *subsidiary* factories; that is, factories which make parts for other factories or put together parts made by other factories. Factories which (A) furnish help to factories (B) build new industries (C) remodel parts (D) substitute for factories (E) build submarines for factories.
3. *Kinetic* energy is possessed by something actually in motion, such as a truck driving down the highway or a hammer being used.
(A) powerful (B) moving (C) weak (D) slow
(E) running
4. The governor refused the prisoner's request for *amnesty* because he was too wicked to be freed.
(A) books (B) vacation (C) salary (D) guns
(E) pardon
5. An *apparition* resembling a haunted figure appeared before the startled audience.
(A) picture (B) ghost (C) movie (D) thing (E) child

B. UNDERSTANDING SENTENCES

You might think that it is easy to understand sentences, but sometimes the meaning is hard to figure out. Number from 6 to 10 on your paper. Read each italicized sentence. Below the sentence are 4 statements, one of which most nearly says what the italicized sentence says. Write the correct letter of each answer on your paper.

6. *One of the first and, in its simple form, one of the most easily understood devices which man has developed to penetrate the air is the ordinary kite.*
A. Kites are very easily understood devices.
B. Kites were one of the first and easiest understood devices to penetrate the air.
C. The ordinary kites can penetrate the air easily.
D. The kite was one of the first devices to penetrate the air.
7. *Radar has many advantages over our human eyes, which react only to very short waves of light.*
A. The use of radar far surpasses human eyes which do not react to light as well.
B. Human eyes react to very short waves of light.
C. Radar can see better than we can because it is larger and stronger.

- D. Our eyes can't see very far because we react only to very short waves of light.
8. *The automobile model-building contests of the Fisher Body Craftsman's Guild, which are sponsored annually by General Motors Corporation and award many prizes including scholarships, encourage thousands of boys to design miniature automobiles.*
- Contests which are sponsored by the General Motors Corporation give scholarships as prizes.
 - Boys can win many prizes if they enter the contests sponsored by the Fisher Body Craftsman Guild.
 - Thousands of boys are encouraged to design miniature automobiles and to enter the contests of the Fisher Body Craftsman Guild which awards many prizes.
 - Building miniature automobiles is an interesting hobby.
9. *New York State attracts people not only by its climate and its opportunities for recreation, but also by the beauty of its scenery.*
- New York State attracts many visitors each year.
 - New York State has a good climate, so people come here to visit.
 - Because New York is such a beautiful state, people visit it to see its scenery.
 - New York State has many visitors because of the many attractions it offers.
10. *Electrons, which are located far outside the nucleus of an atom, are constantly moving about at great speeds and travel in orbits, or paths, about the nucleus.*
- Far outside the nucleus of an atom are electrons which travel in paths at great speeds.
 - Electrons are located outside atoms and travel in orbits.
 - The nucleus of an atom is inside the electrons which are constantly moving about at great speeds.
 - Electrons travel around in orbits at great speed and are part of an atom.

C. GETTING MAIN IDEAS OF PARAGRAPHS

On your paper write the numbers from 11 to 15. Then follow the directions for each number.

11. Read the paragraph below. Then on your paper write just the correct letter of the statement which tells the main idea of the paragraph.

Horses appear in many colors and combinations of colors, including black, seal brown, bay (reddish-brown), dark bay, bright or blood bay, liver chestnut, golden chestnut, light chestnut or sorrel (yellowish-brown), dun

(yellowish-gray), golden palomino, gray, and white. These are all solid body colors. A gray horse is born black and gradually turns lighter with age. Some gray horses, such as Lippizanner stallions, become white by the time they are full-grown. Others remain gray until they die. Bays have a reddish color and usually have black points (legs, main, and tail). Dark bays often are seal brown on the back and reddish-brown on the flanks, under parts, and face. Chestnut horses vary most in color. Liver chestnuts are a true liver color or mahogany brown. Chestnuts never have black points, but often have fine white manes and tails.

- A. A gray horse is born black and gradually turns lighter with age.
 - B. Although some gray horses become white by the time they are full-grown, others remain gray until they die.
 - C. Chestnut horses vary most in color, liver chestnuts having a mahogany brown color.
 - D. Horses can have a variety of colors and color combinations.
12. On your paper write the key sentence of the paragraph which you read in question 11 above.
13. Read the paragraph below. Then write just the correct letter of the statement which tells the main idea of the paragraph.

Buffalo has miles of excellent bathing beaches in its "front yard," and there is good fishing in Lake Erie and in the Niagara River. The city has a large park system, enabling the visitor to drive almost completely around parks and parkways. The zoo covers twenty-three acres and contains about 250 mammals, 300 birds, and 250 reptiles. The city owns and operates the Municipal Auditorium which seats 14,000 persons and the Civic Stadium which has a seating capacity of 40,000. There are numerous swimming pools, ice skating rinks, baseball diamonds, tennis courts, and golf courses. Because it has such a variety of things to do and places to visit, Buffalo is called the "Queen City of the Lakes."

- A. Buffalo has many excellent bathing beaches and good fishing.
- B. Buffalo has many interesting places to see or activities to do.
- C. Buffalo, the "Queen City of the Lakes," has a large park and zoo to visit.
- D. Buffalo is called the "Queen City of the Lakes" be-

cause it has a Municipal Auditorium and a Civic Stadium.

14. On your paper write the key sentence of the paragraph which you read in question 13 above.
15. Read the following paragraph. Then in your own words write the main idea of the paragraph in one complete sentence.

Scientists have recently discovered that bats have a built-in "radar" system that helps them to fly straight and true even when they are blindfolded. This is how a bat's radar system works. When a bat begins to fly he utters supersonic cries at the relatively slow rate of 30 per second. These supersonic cries produce sound waves of so many vibrations per second that human ears cannot detect them. When the sound waves of one of these cries strikes a tree trunk, the wave bounces back toward the bat. The bat's ears catch this echo, and he knows there's danger ahead. So he speeds up his screeches to the rate of 50 a second. The fast echoes tell him precisely where the tree is and how large it is, and he avoids it by veering off in the direction from where there is no echo.

D. READING FOR SPECIFIC DETAILS

Number from 16 to 20. Then answer the following questions which are based on the paragraphs in number 11, 13 and 15 above. Write the correct words only.

16. When a bat flies, what parts of his body catch the echoes so he knows there is danger ahead?
17. What kind of horses are seal brown on the back and reddish-brown on the flanks, under parts, and face?
18. Which horses never have black points?
19. About how many people can be seated in Buffalo's municipal auditorium?
20. What kind of cries does a bat utter when he begins to fly?

E. CRITICAL READING

Number from 21 to 25. Then answer in complete sentences the following questions which are based on the paragraphs in numbers 11, 13, and 15 above. These questions will require real "thinking."

21. Why is a bat's ability to fly blindfolded called a built-in radar?
22. Why do you think Buffalo was called the "Queen City of the Lakes" when there are larger cities located on some of the other Great Lakes?
23. If you were a judge in a horse show and had to judge for

each horse's *points*, what parts of the horse would you examine?

24. Why are we unable to hear a bat's cries as he flies?
25. What is meant by "solid body colors" when describing horses?

Test of context clues using words from literature

ENGLISH: Sample Informal Test #2

Purpose of test: To determine how well students can arrive at meanings of words through the use of context clues.

Directions to teacher: Choose words from literature being read in class. Make certain that each word can be defined through the use of a specific type of clue or clues. Present the word in a well-worded sentence. Have students try to figure out the meaning without using a dictionary.

Directions to student: The following sentences are based upon the introduction and first two chapters in the novel *Johnny Tremain* by Esther Forbes. The meaning of each italicized word can be found somewhere within the sentence. Read each sentence. Then write a synonym for the word or group of words which are italicized.

1. He was a *jovial* man, always looking on the bright side of things.
2. Dusty hated the way the younger boy *lorded it over* him, telling him when to go to bed, when to get up, and criticizing his work in the silversmith's shop.
3. Whatever "pig-of-a-louse" was, it did describe the whitish, *flaccid* parasitic Dove.
4. Every now and then they would say something that *irritated* him and then together would shout, "Johnny's mad."
5. He thought from the attention this boy was receiving from his escorting ladies, he must be a boy of *consequence*.
6. So that Mr. Hancock wouldn't notice, John *unobtrusively* took his notebook and pencil from his pocket.
7. Johnny was making out of wax an exact *replica* of the pitcher handle.
8. I'll bet your name is so awful you are ashamed of it, like "Ladybug" or "Leapfrog." I'll bet it's *Lamentable*."

Test of ability to appreciate characterization

ENGLISH: Sample Informal Test #3 (Reading literature—senior high level)

Purpose of test: To determine students' ability to appreciate char-

acterization when reading literature.

Directions to teacher: Choose a selection which is similar to that which the students will be reading in class. Instruct them to read the selection silently and answer the questions.

Directions to student: When you read a novel, you will meet many interesting people or characters. The better you appreciate them, the more meaningful the novel will be to you. Read the following passage silently. Then answer the questions which follow.

1. How many main characters were there?
2. Classify each main character as being "typical" or "highly individual" in his personality. Explain.
3. Which character did you like best? Why?

For examples of other types of informal tests, see the following references which are listed in the section on "References and Related Bibliography" (3: 395-398, 6: 75-79, 16: 212-220, 13: 133-139).

● FOREIGN LANGUAGES: Reading and Study Skills to Be Developed

Although much of the testing which is done in foreign language subjects involves the vocabulary of that language, there are several reading and study skills which pupils must possess if they are going to learn a language easily. They must be able to distinguish between sounds which are similar; memorize technical vocabulary; read orally; think quickly; read about foreign cultures and lands; and visualize as they read.

Survey to determine ability to hear sounds in words

FOREIGN LANGUAGES: Sample Informal Test #1

Purpose of test: To determine if students have a "good ear for sounds" before they begin to study a foreign language.

Directions to teacher: Some students are unable to distinguish between sounds which are similar in the English language, or they cannot give the sounds which they hear in words. These students will need special "ear training" before they are introduced to foreign words. The following test, although in English, will help you find those students who have a poor ear for sound. This type of test can also be prepared using words in a foreign language.

Directions to student: As I pronounce a word, listen carefully to its *beginning* sound and write on your paper the letter which is used to represent the sound which you heard.

- | | | |
|-----------|--------------|---------------|
| 1. barbel | 4. moot | 7. naive |
| 2. liege | 5. reticence | 8. dissonance |
| 3. humas | 6. forage | 9. grenadine |

Now listen for the *last sound* which you hear. Write just one letter for each ending sound.

- | | | |
|--------|--------|---------|
| 1. leb | 4. gul | 7. glot |
| 2. mid | 5. com | 8. mek |
| 3. vor | 6. dis | 9. hol |

Now write the *first two sounds* which you hear.

- | | | |
|-------------|-------------|------------|
| 1. blazon | 4. glib | 7. snipe |
| 2. crockery | 5. preen | 8. chink |
| 3. shakle | 6. throstle | 9. twiddle |

Now write the *last two sounds* which you hear.

- | | | |
|----------|------------|-----------|
| 1. kest | 4. commend | 7. lurch |
| 2. frink | 5. rimp | 8. rement |
| 3. alorn | 6. shirl | 9. tash |

Write the *vowel sound* which you hear in each word.

- | | | |
|----------|---------|---------|
| 1. skimp | 4. glob | 7. mant |
| 2. tram | 5. nib | 8. pelt |
| 3. rend | 6. scum | 9. lob |

Survey of language background

FOREIGN LANGUAGES: Sample Informal Test #2

Purpose of test: To find out how much students know about English words which have foreign origins.

Directions to teacher: Prepare a list of words which are used in English but have their derivation from the foreign language which you teach.

Directions to student: The following English words originally came from the French language. Write the meanings for as many words as you can:

- | | |
|---------------|-------------------|
| 1. crochet | 6. Noel |
| 2. bon voyage | 7. detour |
| 3. a la carte | 8. boutique |
| 4. coiffure | 9. salon |
| 5. chic | 10. chaise longue |

List any other English words which you think are derived from the French language.

● GUIDANCE: Reading and Study Skills to Be Developed

Although we do not ordinarily include *guidance* in a list of content subjects, the use of this service has become so popular that guidance counselors now feel the responsibility of helping students to develop their reading and study skills. This department is sometimes charged with the responsibility of administering standardized or individual tests as well as counseling students who are failing in content subjects. Thus, counselors must face the problem of how to determine why students are failing before making suggestions of ways to help them. The following general reading and study skills should be incorporated into a guidance counselor's program. Students must be able to follow directions; prepare and follow a study outline; understand technical terms; comprehend guidance books and pamphlets; and read about a job or profession.

Test to determine why a student has a reading problem

GUIDANCE: Sample Informal Test #1

Purpose of test: To help the student understand why he has a problem in reading.

Directions to student: Using the reading checklist on pages 11 and 12 in the booklet *You Can Read Better* (Science Research Associates), answer each question truthfully. Then we will go over each answer together to talk about your problems.

Test of student's rate of comprehension

GUIDANCE: Sample Informal Test #2

Purpose of test: To find out if a student has a problem adjusting rate to material being read.

Directions to student: Read pages 20-22 in the booklet *Streamline Your Reading* (Science Research Associates). Then complete the test on pages 22-24. We'll discuss your rate of comprehension when you finish.

Test to find out how a student studies

GUIDANCE: Sample Informal Test #3

Purpose of test: To observe how a student studies a chapter and to discover ways to help him.

Directions to student: Read the chapter "Improving Your Study

Habits" on pages 25-30 in the booklet *Getting Along in School* (Science Research Associates) the way you usually read a chapter in your textbook. When you have finished, close the booklet and write down (or tell me) as many "tips on studying" as you can remember.

Directions to counselor: As the student starts to read, observe him to note if he is using a specific study technique such as the SQ3R study method (12).

● HEALTH: Reading and Study Skills to Be Developed

Health courses have advanced within the past few years and include an entirely new vocabulary. Therefore, teachers of this subject must take special notice of those students who are unable to read their texts because of the heavy vocabulary and concept load in paragraphs or each sentence. Students should be able to develop a technical vocabulary; grasp main ideas and important details; read charts and diagrams; read critically; read related reference books and pamphlets; and take notes from a book or lecture.

Survey vocabulary background

HEALTH: Sample Informal Test #1

Purpose of test: To find out how many technical words the students know before beginning a unit on "Narcotics and Other Dangerous Drugs."

Directions to teacher: On the board list some of the terms which will be used in this unit.

Directions to student: In the unit on narcotics we will be using the pamphlet *Facts about Narcotics and Other Dangerous Drugs* (Science Research Associates, 1967). There are several new terms which you must know. On the board you will find a list of some of these words. You may already know the meanings of many of the words. On your paper write your definitions of the words which you know. If you do not know all of the words, do the best you can.

- | | |
|----------------------|--------------------|
| 1. addiction | 8. heroin |
| 2. opium | 9. codeine |
| 3. hypodermic needle | 10. benzedrine |
| 4. marihuana | 11. tranquilizers |
| 5. sedative | 12. amphetamines |
| 6. morphine | 13. hallucinations |
| 7. barbiturates | 14. LSD |

15. neurotic

Pretest of students' knowledge of a new unit

HEALTH: Sample Informal Test #2

Purpose of test: To determine students' knowledge of a topic before introducing it.

Directions to teacher: Some students have developed preconceived ideas about health habits, especially smoking and drinking. To find out each student's "mind set" before introducing a unit on "Smoking and Drinking," give the following pretest which is based on the booklet *What You Should Know about Smoking and Drinking* (Science Research Associates).

Directions to student: Read the following statements which pertain to the unit which we will be studying on "Smoking and Drinking." Then, on your paper, write *True* or *False*, according to your knowledge about each statement.

1. It is all right to smoke as long as your growth isn't stunted.
2. Alcohol works something like a sleeping pill because it dulls the brain.
3. Alcohol destroys body tissues directly.
4. The most damaging effect of alcohol is that continued drinking keeps people from eating the foods they need for health.
5. Some people drink to run away from their troubles.
6. Probably one of the biggest costs that can be charged to drinking is accidents.
7. Going on a drinking party is the smart thing to do.
8. If all the smoke the average smoker gets in a week were taken in at once, it would kill him fast as a bullet.
9. Investigators by the American Cancer Society have not shown that cigarette smoking shortens life by leading to cancer.
10. Doctors agree that smoking is harmful to growing boys and girls.

● **HOMEMAKING: Reading and Study Skills to Be Developed**

In the area of homemaking several subjects are usually taught. Some of these are home economics, foods and nutrition, clothing, housing and interior decorating, family life, and child development. The major skills to be stressed are ability to follow directions; interpret charts, graphs, and diagrams; read bills and statements accurately; understand instructions for using mechanical appli-

ances; read newspapers and magazines which contain ideas for homemakers; read labels; and read advertisements critically.

Survey of ability to use textbooks

HOMEMAKING: Sample Informal Test #1

Purpose of test: To determine how well students can use the new textbook.

Directions to teacher: The following informal test is based on the text *Teen Guide to Homemaking* by Barclay and Champion (McGraw-Hill Book Co., 1961).

Directions to student: You are about to use a textbook which contains much interesting information for teenagers who are learning about homemaking. Before any assignments are given in your book, a survey will be conducted to help you learn how to use your text. Using your book, answer the following questions:

1. Into how many sections or parts is the book divided? Name each part.
2. Why did the authors put some of the material along the sides of the pages in a special color?
3. If you wanted to find how to make "beef stew," where in the book would you look first?
4. Why are there so many pictures and illustrations in the book? How can they help you to learn?
5. When you are reading a recipe, how do the authors show you where to find the ingredients to use?
6. Look through Chapter 1. Why are some of the headings in large blue print?
7. How are the other headings shown to you?
8. How can you use the headings to help yourself remember what you have read?
9. Why are some words in italics?
10. List the important things you have already learned about your textbook.

Test of ability to read and understand recipes

HOMEMAKING: Sample Informal Test #2

Purpose of test: To find out if pupils can read and understand recipes.

Directions to teacher: The following test is based on the text *Teen Guide to Homemaking* by Barclay and Champion (McGraw-Hill Book Co., 1961).

Directions to student: It is very important for a good cook to be able to read and understand recipes without help. To find out how well you can do this, turn to page 447 in your text. Study the recipe for tuna fish casserole. Then answer the following questions:

1. What is meant by "1 can cream of celery soup, *undiluted*"?
2. What is the first step in preparing the casserole?
3. Why must you add the noodles gradually?
4. Why must you stir the noodles as they are cooking?
5. What is a colander?
6. How would you prepare the onions?
7. To what do you add the soup, milk, tuna fish, peas, salt, pepper and noodles?
8. How should you prepare the casserole dish before putting the ingredients into it?
9. At what temperature should you bake the casserole? For how long?
10. What can you do to vary the recipe?

Test of ability to read a pattern envelope

HOMEMAKING: Sample Informal Test #3

Purpose of test: To find out how much students know about reading and following directions on a pattern envelope before they begin to sew.

Directions to teacher: The following pretest is based on the text *Guide to Modern Clothing* by Sturm and Grieser (Webster Division, McGraw-Hill Book Co., 1962).

Directions to student: Some of you already know a great deal about using patterns. The following pretest will help us know how much reviewing is needed before you buy your pattern for class. Turn to page 335 in your text. Study the sample of the pattern envelope very carefully. Then answer the questions below.

1. Will this pattern require special knowledge about sewing or is it an easy pattern to use?
2. What types of fabrics might you use with this pattern?
3. If you are making View 1, list all of the sewing notions you will need.
4. How many pattern pieces will you use for View 1?
5. If you take a junior misses' pattern, size 13, how much material should you buy for View 1 if your pattern calls for 54" without nap?
6. Will you need contrasting material for View 1?
7. Is it necessary to buy interfacing for View 1?

8. How much facing should you buy?
9. For the size which is given in question 5 above, what are the body measurements?
10. What parts of this pattern envelope do you not understand?

● HUMANITIES: Reading and Study Skills to Be Developed

The addition of courses in the humanities in secondary schools has resulted in a completely new concept of teaching for some teachers. They no longer teach their own content material, using the same notes they have lectured from year after year. A spark is added to teaching when students are shown how to integrate their learning to include many disciplines. A number of reading and study skills are interwoven into the teaching of the humanities. Students must be able to use reference materials; interpret an author's style; take notes from a book or lecture; appreciate art, music, literature, and history; and read and think critically.

Test to determine readiness for study of the humanities

HUMANITIES: Sample Informal Test #1

Purpose of test: To determine students' readiness for the study of the humanities.

Directions to teacher: Some schools have found it necessary to prepare their students at the beginning of the course for the experiences which they will meet. To determine if students have some concept of the meanings of the humanities, an open-ended sentence can be given for them to complete.

Directions to student: To find out your concept of the humanities, complete the following sentence in your own words.

"The humanities are . . .

Pretest to determine ability to take notes from a lecture

HUMANITIES: Sample Informal Test #2

Purpose of test: To determine if students are able to take notes adequately.

Directions to teacher: Prepare a typical lecture which is used in the course. Instruct students to take notes in their own style. After completing the lecture, review the main points which should have been included. Show students different forms they

might have used in place of a formal outline which is very time consuming. An overhead projector is a convenient device to use to illustrate ways to take notes.

● **INDUSTRIAL ARTS: Reading and Study Skills to Be Developed**

Teachers of industrial arts are faced with the big task of explaining to students how to use equipment and of teaching them how to follow directions precisely. This applies to such subjects as those which include blueprint reading, technical drawing, surveying, graphic arts, woodworking, metal working, electricity, and electronics. In order to work in this area, students must be able to read explanations and instructions; understand and follow safety rules; remember instructions for the care of equipment; follow directions; read and understand topics related to the subject being studied; and learn technical language.

Pretest to determine students' background

INDUSTRIAL ARTS: Sample Informal Test #1

Purpose of test: To find out how much students know about building and repairing a radio or television set before starting the course.

Directions to teacher: Prepare a few general questions as a pretest before starting the course or introducing the textbook. This will give the students a general idea of what they will be studying in the course and will help you in planning your unit.

Directions to student: You are about to begin your course on basic electronics. To find out what you already know about this subject, answer the following questions the best you can.

1. What is an electron?
2. What makes a magnet attract a nail?
3. How does a relay operate?
4. Why can a storage battery be recharged?
5. What is meant by a resistor?
6. What is a capacitor?
7. What is meant by AC and DC current?
8. Why is resonance so important?
9. What is an amplifier?
10. Have you ever worked on a radio or television set? Explain what you did.

Test of ability to read formulas, understand diagrams, follow directions, and read the text independently

INDUSTRIAL ARTS: Sample Informal Test #2

Purpose of test: To find out how well students can a) read formulas, b) understand diagrams, c) follow directions, and d) read their text without help.

Directions to teacher: The following test which is based on *Radio-Television and Basic Electronics* by R. L. Oldfield (American Technical Society) is a brief sample to show how student skills can be evaluated before starting a new unit.

Directions to student: In Chapter IV of your text you are going to study about resistance. Read pages 28 to 33 very carefully and study the diagrams and examples which explain how to learn Ohm's law. When you have finished, close your book and answer the following questions:

1. How is Ohm's law expressed in a symbol form?
2. Draw a diagram which shows Ohm's law formula.
3. Explain how to find the current using the diagram of Ohm's law which you drew.
4. Explain how to find the resistance using this diagram.
5. Explain how to find the voltage using this diagram.
6. If a rheostat which has a resistance of 3 ohms is connected to a battery of 6 volts, how much current will flow through the rheostat? Show your work.
7. What voltage is required to force a current of 1 ampere through a filament of a radio tube whose resistance is 5 ohms? Show your work.
8. If the resistance in a circuit is 12 ohms, and 4 amperes are flowing through the circuit, the voltage across the circuit must be _____ volts. Show your work.
9. If an audio-filter choke has a resistance of 200 ohms and a full-load of 120 milliamperes, what will be the voltage across the terminals of the choke when full-load current is flowing through it? Show your work.
10. What is the resistance of the filament winding of a full-wave rectifier tube that requires a current of 2 amperes at 5 volts? Show your work.

● **MATHEMATICS: Reading and Study Skills to Be Developed**

Some students experience difficulty in mathematics because they have not mastered the basic computation fundamentals, while other pupils have trouble reading problems. In order to study mathe-

matics, the student must be able to read detailed material slowly and step-by-step; read symbols, formulas, equations, and graphs; understand technical vocabulary; follow directions precisely; read statistical reports and tax blanks; work through a problem by visualizing it before trying to solve it; and restate a problem in one's own words.

Survey of ability to solve word problems

MATHEMATICS: Sample Informal Test #1 (Junior high school level)

Purpose of test: To find out if students can read and work problems on an easy level.

Directions to teacher: Prepare several problems similar to those which students were taught in earlier grades.

Directions to student: Before we begin our new work in seventh grade math, we are going to find out together how well you can do a few word problems. Read each of the following problems very carefully. Then work the problems on your paper. Show all of your work.

1. The 59 pupils in the seventh grade went to Brookville on a bus. There were not enough seats for all of them so 16 pupils stood up. How many pupils had seats? (basic problem)
2. Last month Nan spent 96¢ for bus rides at 8¢ a ride. How many rides on the bus did she have? (basic problem)
3. Kate earns 50¢ an hour taking little children out to play. She helped Mrs. Allen for 3 hours today. Then Kate spent 55¢ of her money. How much money did she have left? (basic problem with two steps)
4. The 635 pupils in our school sold 775 tickets to the school play at 35¢ each. How much did they receive for the tickets sold? (basic problem with nonessential fact)
5. Last week Bob earned 70¢ on Monday, 50¢ on Wednesday, \$1.00 on Thursday, and \$1.40 on Saturday. He was paid at the rate of 60¢ an hour. How many hours did he work? (two step problem)
6. Father knows how far he drives from home to his office. He also knows how many times this week he drove that distance. How can he find the number of miles he drove to and from his office? (problem involving no numbers)
7. Five boys and six girls are going on a picnic. Sue offered to make three sandwiches for each of the boys and two sandwiches for each of the girls. How many sandwiches should she make? (problem involving hidden numbers)

8. Judy bought eight oranges for 69¢, three pears for 29¢, and five bananas for 6¢ each. How much did she spend in all? (problem with hidden number)
9. Mr. Hill wants to paint the kitchen with 2 coats of paint. It is 16 feet long and 12 feet wide. He bought 2 gallons of paint at \$5.55 a gallon. What did the paint cost? (problem involving irrelevant numbers)
10. For the class Christmas party the girls bought paper cups for 39¢, paper plates for 55¢, paper napkins for 15¢, and plastic spoons for 35¢. For 36 persons the average cost amounted to how much per person? (problem requiring two steps)

Test to determine ability to comprehend the wording of problems

MATHEMATICS: Sample Informal Test #2

Purpose of test: To determine how well students comprehend the wording of problems.

Directions to teacher: Prepare a number of problems which contain three elements, a) essential facts, b) nonessential, but related, facts, and c) facts not related at all.

Directions to student: Make three columns on your paper. Head your columns as follows:

Essential Facts

Nonessential
but Related

Not Related

Read each problem carefully. Then fill in the information which belongs in the three columns according to where you think it belongs. This will tell you how well you understand word problems.

Survey of students' knowledge of symbols

MATHEMATICS: Sample Informal Test #3 (High school level)

Purpose of test: To find out how many symbols students understand before beginning a unit on "Symbols and Sets" in algebra.

Directions to teacher: The following survey test is based on the text *Modern Algebra, Structure and Method* by Dolciani, Berman, and Freilich (Houghton Mifflin Co., 1962).

Directions to student: In Chapter 1 on "Symbols and Sets" in your textbook you will use many symbols in place of words or numerical expressions. Before the unit is begun, see how many symbols you already know. Match the symbol in List I with its correct meaning in List II by placing the correct letter before the number in List I.

<i>List I</i>		<i>List II</i>	
_____	1. +	A.	Multiply
_____	2. -	B.	Subtract
_____	3. =	C.	Is greater than
_____	4. $\frac{\cdot}{\cdot}$	D.	Divide
_____	5. \times	E.	Is not equal to
_____	6. \neq	F.	Add
_____	7. $>$	G.	Is an element of
_____	8. $<$	H.	A set
_____	9. \in	I.	Is less than
_____	10. $\}$	J.	Equals

● MUSIC: Reading and Study Skills to Be Developed

It is apparent that without certain reading skills most students would not be capable of learning words of songs, remembering musical compositions, or recognizing notes on a scale quickly. The reading and study skills to be developed in music are the ability to read words of songs; learn the meanings of musical terms; read compositions of musical selections quickly; read about composers, operas, and musical works with appreciation; follow directions in musical textbooks; and evaluate critical reviews.

Survey of ability to perceive notes on a scale

MUSIC: Sample Informal Test #1

Purpose of test: To determine how quickly students can perceive notes on a scale when notes are flashed.

Directions to teacher: Prepare a set of large flash cards which contain a variety of patterns of notes on a scale.

Directions to student: If you are going to read music quickly, you must practice recognizing notes on a scale rapidly. Study each card as it is flashed for five seconds. As soon as it is lowered, reproduce on your paper what you saw.

Pretest of ability to recognize words quickly

MUSIC: Sample Informal Test #2

Purpose of test: To find out if students can quickly recognize and pronounce words in a song which they will be learning.

Directions to teacher: Prepare a set of large flash cards which contain words or phrases from a song which pupils will soon be singing. (This same type of pretest can be used with an overhead projector.)

Directions to student: Each card will be flashed for two seconds. As soon as it is lowered, raise your hand if you can remember the words which were flashed.

Test of knowledge of musical terms

MUSIC: Sample Informal Test #3

Purpose of test: To determine if students know meanings of musical terms which will be used in the course.

Directions to teacher: Prepare a list of the main terms which will be used in the next unit.

Directions to student: Before we begin our next unit, let's find out how many of the specialized musical terms you already know. On your paper, write the meanings for as many words as you know. This will tell us which words to review and which ones you already know.

● **PHYSICAL EDUCATION: Reading and Study Skills to Be Developed**

Although teachers usually do not use textbooks in physical education classes, there are several reading and study skills which they can develop. In order to participate in a physical education program, students should be able to listen attentively to directions and signals; follow directions quickly and accurately; distinguish right from left; read descriptions of games and sports in newspapers and magazines; remember details in sequence; read charts and diagrams of football plays; read books about sports; learn technical vocabulary; and think fast.

Survey of ability to listen to and follow directions

PHYSICAL EDUCATION: Sample Informal Test #1

Purpose of test: To find out how well students can listen to directions and follow them quickly.

Directions to teacher: As students are going through a series of exercises or calisthenics, observe those students who do not appear to be able to listen well to directions or to react quickly. Include a number of directions which require distinguishing right from left. (Plan additional practice for students who do poorly.)

Survey of knowledge of technical terms

PHYSICAL EDUCATION: Sample Informal Test #2

Purpose of test: To find out if students are familiar with technical

terms which they will be using in a specific sport.
Directions to teacher: Before beginning directions for the sport or game to be played, make a list of the technical terms which are associated with it. Ask students to give orally their interpretations of these terms. This will help to prevent confusion later on.

Test of ability to interpret diagrams

PHYSICAL EDUCATION: Sample Informal Test #3

Purpose of test: To find out whether students can interpret, without help, a diagram of various plays which are used in a sport.

Directions to teacher: On the chalkboard or overhead projector, draw a diagram of the game about to be explained. Ask students questions about the diagram to determine how they perceive it. Include inference questions, such as, "If this person moved to this position, and if Joe is standing here, what should Joe do next? Why?"

● **SCIENCE: Reading and Study Skills to Be Developed**

To read science material intelligently, students must learn how to read and think in a slow, orderly manner. Speed reading has no place in this area unless it is to skim material to locate specific information or to review. To work effectively in this area, students must be able to understand technical vocabulary and analyze words through their roots, prefixes, and suffixes; read symbols, formulas, and diagrams; read critically; apply laws and principles of science; understand the author's style and message; apply a study method such as the SQ3R; and take careful notes.

Inventory of ability to read the textbook

SCIENCE: Sample Informal Test #1

Purpose of test: To determine if students will be able to read and understand their textbook with a minimum of help.

Directions to teacher: The following group reading inventory is reproduced from *Effective Reading in Science* by David L. Shepherd (Row, Peterson and Company, 1960), 22-24, with the permission of the publisher:

Suggestions for specific types of questions are included in the sample form. On mimeographed copies of the inventory, an appropriate amount of space should be left following each question for the pupil's answer. (The parenthetical explanations

and suggestions are for the teacher and should not be included in the mimeographed copies.)

A. Using parts of the book

1. On what page would you find the chapter called _____? (Tests ability to use table of contents.)
2. Of what value to you are the questions listed at the end of each chapter? (Tests understanding of a specific study aid.)
3. How are the chapters arranged or grouped? (Tests knowledge of organization of textbook.)
4. What part of the book would you use to find the page reference for the topic _____? (Tests knowledge of index.)

B. Using source materials

5. What library aid will tell you the library number of a book so that you would be able to find the book on the shelves? (Test knowledge of functions of card catalogue.)
6. What is a biography? (Tests knowledge of a type of reference book.)
7. Explain the difference between science fiction and science factual materials. (Tests knowledge of important types of science materials.)

Questions 8-24, on skills C through G, should be based on a 3- or 4-page selection in the textbook.

C. Understanding vocabulary

8. Turn to page _____. How does the author define the word _____ by the way he has used it? (Tests ability to use the context clues and the aids which the author uses to give the meaning of the word.)
9. Define _____.
10. What is a _____?
(Questions 9 and 10 test pupil's knowledge of vocabulary. When asking for the meaning of each word, use the word in a sentence.)

D. Noting main ideas

11. (Four questions asking for main points of information:
12. main ideas of the longer important paragraphs, of the
13. chapter introduction or summary, of the summary of an
14. experiment. *Examples:* Of what are atoms composed? What reason was given for the conservation of human resources? What is the result of the photosynthetic process?)

E. Noting details

15. (Four questions asking for specific bits of information
16. about an aspect of a process, the application of a law,
17. the principle steps in an experiment, a life cycle, inci-
18. dents in the life of a scientist.)

F. Drawing conclusions

19. (Three questions asking for the significance of a finding,
20. the value of a finding, the implication of a description
21. of some species or natural phenomena, cause and effect, a comparison of two or more types of living organisms or inanimates. The questions should call for answers that are not completely found in the textbook reading selection. *Examples:* Illustrate the term *balance of life*. What conclusion can you draw from the importance of the photosynthetic process? What is the principle difference between *mitosis* and *meiosis*?)

G. Applying theoretical information

22. (Three questions asking for examples of practical uses
23. of scientific laws and principles. *Examples:* Explain the
24. relationship of photosynthesis to the conservation of plant life. Explain the idea that air confined in a small area exerts pressure in all directions, in relation to the action of air in a football.)

H. Following directions

25. (Three questions asking pupils to show the sequence of
26. steps or ideas for solving a problem of performing an
27. experiment or the sequence of a chain of events. *Examples:* What is the second step of the experiment? What are you directed to do after you have placed the flask over the burner?)

I. Understanding formulas and symbols

28. (Three questions testing the pupils' understanding of
29. how symbols and formulas are used with scientific data.
30. *Examples:* What does the H refer to in the symbol H_2O ? What does $40^{\circ}F$ mean?)

Inventory of ability to interpret experiments

SCIENCE: Sample Informal Test #2

Purpose of test: To find out how well students understand the purposes and conclusions of experiments.

Directions to teacher: Choose several experiments which are explained in the textbook. Direct students to read each experiment

carefully and then to complete the inventory to find out how well they understood each experiment.

Directions to student: Read the following experiments which are explained in your text. Then in one sentence write the purpose of the experiment. Next write the finding or the conclusion in one sentence.

1. Page _____ Experiment No. _____
 - a. Purpose:
 - b. Finding:
2. Page _____ Experiment No. _____
 - a. Purpose:
 - b. Finding:

Test of ability to interpret diagrams

SCIENCE: Sample Informal Test #3

Purpose of test: To find out how well students can interpret a diagram in their textbooks.

Directions to teacher: The following informal test is based on *Modern Physical Science* by Brooks, Tracy, Tropp, and Friedl (Holt, Rinehart, and Winston, 1966).

Directions to student: Understanding diagrams is a very important part of this course. Turn to page 12 in your textbook. Read the section entitled "Electrolysis of Water" and study the diagram carefully. Then in your own words explain what the diagram is showing you.

For additional samples of informal tests in science see the section on "References and Related Bibliography" (13: 127-129 and 15: 258-260).

● **SOCIAL STUDIES: Reading and Study Skills to Be Developed**

Students need to know how to use good study skills when they read their social studies texts because these books are usually crammed with important ideas and facts. The wise teacher will observe students to identify those who are not familiar with adequate study methods such as the SQ3R technique. The following list of skills is a condensation of the many reading and study skills which are needed in this subject. Students in this area must be able to apply the SQ3R study method (*skimming* the assignment before reading it to get in the mood, *questioning* about the information to be read, *reading* carefully, *reciting* immediately to aid memory, and *reviewing* later to reinforce recall); recognize

cause and effect relationships; compare and contrast situations; read critically to pass judgments; read tables, graphs, charts, and cartoons; take notes from a book or lecture; outline; and use reference materials.

For samples of other types of evaluative tests which can be used in social studies, see the following sources in the section on "References and Related Bibliography": (3: 384-395, 14: 20-22, 15: 125-127, and 16: 223-233).

Inventory of ability to read text critically

SOCIAL STUDIES: Sample Informal Test #1

Purpose of test: To obtain a quick evaluation of each student's ability to read and comprehend his text critically.

Directions to teacher: The following brief test which is based on the text *This Is America's Story* by Wilder, Ludlum, and Brown (Houghton Mifflin Co., 1966) will help to evaluate how well students can read a section of the text critically.

Directions to student: Read pages 428 to 432 in your text. Then answer the questions which follow. Think carefully about each question before answering it.

1. Why did the Indians fight the advance of the white men?
2. Why did the white men usually win?
3. What is meant by the term *removal policy*?
4. What does the map on page 429 tell you?
5. Why did the principal cattle trails run in a north-south direction?
6. Why did the fighting with the Indians continue beyond the Mississippi?
7. On page 430 what is meant by the sentence, "As more and more white men moved westward, the Indians became desperate"?
8. In your own words tell what the picture on page 431 tells us.
9. Why did the attitude of the white men change toward the Indians?
10. List any words which you did not understand on these pages.

Pretest of ability to prepare a study outline

SOCIAL STUDIES: Sample Informal Test #2

Purpose of test: To find out if students know how to prepare a study outline.

Directions to teacher: The following material is based on *The Record of Mankind* by Roehm and Buske (D. C. Heath, 1965).

Directions to student: When you prepare a study outline, it is not necessary to use formal outlining. To make a study outline, place the main headings across the top of the paper. Beneath each heading briefly write the most important facts. You can then study from your outline by folding the paper across or down to check your memory.

Read pages 10 to 17 in your textbook. Then prepare your own study outline following the form below:

Title of Chapter 2 _____

Man Makes a Beginning	Neolithic Revolution	Age of Metals	Dawn of Civilization

Test to ascertain whether students apply the SQ3R study method

SOCIAL STUDIES: Sample Informal Test #3

Purpose of test: To find out whether students apply the SQ3R study method. (See references 3 and 12 for a detailed explanation of this technique.)

Directions to teacher:

- Step 1: Choose two comparable sections in the text. Prepare similar tests based on each section.
- Step 2: Instruct students to read Section #1 for homework. Give no other directions.
- Step 3: The following day give Test #1. Mark papers and discuss results.
- Step 4: Review or teach the SQ3R study method so students will understand its value.
- Step 5: Instruct students to read Section #2 for homework and to apply the SQ3R study method.
- Step 6: Give Test #2. Mark and compare results with Test #1.
- Step 7: Remind students to apply this study technique each time they do an assignment in any subject where it can be used.

For samples of other types of evaluative tests which can be used in social studies, see the following sources in the section on "References and Related Bibliography" (3: 384-395, 14: 20-22, 15: 125-127, and 16: 223-233).

Chapter 5

USES OF CLASSROOM EVALUATION

● Using Informal Test Results to Plan Daily Instruction

AFTER STUDYING the ways to prepare informal classroom tests and understanding the ease with which they are administered and scored, it is obvious that the main value of the tests lies in the effect the results have upon the content teacher when he plans his daily lessons and assignments. If a teacher knows in advance that certain students will have difficulty pronouncing words in a new suit, he will find time to give these students special help. If other students can pronounce words but do not understand what they are reading, the teacher will call upon them to make sure that they understand new concepts and vocabulary words. And if still other students are good at pronouncing words and understanding literal meanings but are unable to read critically or to draw conclusions from their reading, the teacher can direct special thought questions to these students. Therefore, through the method of questioning, the teacher is able to take care of individual differences, providing the teacher knows in advance which students need help in specific skills.

● Using Informal Test Results to Motivate Students

Although tests are usually thought of as means of forcing students to study a subject, the results of informal tests can be used to motivate students to improve in their weak areas. This will happen when a content teacher handles the testing and interpretation diplomatically so that students are not threatened by the results. This is one reason why informal tests are not graded. If the student is led to analyze his own weaknesses, he is more apt to do something about improving than if a teacher forces him to do this. Informal tests also mean more to students than standardized tests because they use the actual material which will be read and studied in

class. The student is receiving a head start on his assignments; his teacher is letting him in on the secrets of successful study in his subject; and his teacher cares enough to show him *how* to succeed in his subject.

● Using Information about Students to Better Understand Them

It is sad to relate that some students try very hard in secondary school, only to be told by a teacher that they are lazy or uncooperative. When the facts are known, these students are sometimes suffering from physical or emotional problems which would cause the strongest teacher to resign his job. If a teacher understands *why* students are experiencing difficulties, and if he treats them with the understanding they need, there is often a remarkable improvement in both the students' work and the teacher's disposition. Obtaining confidential information about a student's home background, his physical stamina, or other problems which may interfere with learning, will help each teacher to know how to reach the student who is not succeeding.

● Sharing Tests and Results with Other Content Teachers

In some school systems where there may be several teachers in one subject area, each teacher might choose a specific unit and prepare the informal test to be used during that unit. The teachers then share or "swap" tests, thus saving much preparation time. Test results are discussed, revisions of tests are made, and the revised editions are filed for future use. New teachers may find these prepared copies are real time-savers since the whole concept of giving informal tests before teaching may be new to them.

In addition to sharing informal tests, teachers may exchange test results when this information is of interest to others who teach the same students. The English teacher can confer with teachers of social studies and science to give them information about students who are unable to read for main ideas and supporting details, since these skills are essential in the three subject areas. Teachers of mathematics and science often pool test results when the skills which were evaluated are pertinent to both subjects. Teachers of typing and shorthand have found that students who are slow readers and have difficulty pronouncing or spelling words in English

class usually do poorly in business subjects. This type of team approach often leads to an exchange of ideas on good teaching techniques as well as sharing tests and test results.

● Using Test Results to Help Students Who Cannot Read the Textbook

If students are unable to read the required textbook which is recommended for a specific grade level, the teacher can try some of the following suggestions:

1. Try to find an *easier textbook* on the same subject, but be sure it is not used in the elementary grades or that it is not too juvenile in appearance.
2. If this is not possible, look through the regular textbook and choose just those sections which the students may be able to read with *much help from the teacher*. This will necessitate special work on developing new concepts and vocabulary *before* students begin to read from the text. The teacher should then give the class one or two leading questions which can be answered by reading a *short* passage (usually one or two paragraphs). An immediate discussion of the answers to these questions will reinforce memory and will help those students who can learn by listening, but not through reading. A short worksheet might follow class discussion.
3. If there are portions of the course of study which must be taught without the use of the textbook, the teacher can use a variety of interesting approaches:
 - a. After introducing the topic to be studied, ask students to bring to class magazine or newspaper articles related to the topic. Use these to develop new content.
 - b. Use films, filmstrips, records, or other audiovisual aids as often as possible. Follow these with some type of checkup to make the lesson meaningful. Avoid lengthy tests, however.
 - c. After showing a film, have students dictate the main points as the teacher writes them on the board.
 - d. Bring in pamphlets, booklets, and other materials on the topic being studied and assign articles for students to read according to their interests and reading abilities. After each student has read his article, he then gives a brief summary of its contents. Other students may question him

after his report, or the student who gave the summary may ask questions which his audience must be able to answer. They are thus developing the skill of listening as well as learning new content.

- e. The better readers in the class may be assigned sections of the regular textbook to read while other students are reading easier books which may be obtained from the library or by writing to companies which publish free pamphlets and other materials. In this way, each student is doing "research" on his assigned topic and is also able to read and comprehend his assignment.
 - f. At times (but not too often) the teacher may give information to the students through a short "lecture." Here care must be exercised so that students do not become bored since they have a tendency to "tune out" if the teacher talks too much. To prevent this, a skeleton outline can be provided for the students to complete together following the talk.
 - g. The teacher may, at times, write a simplified version of essential material and mimeograph it. Eventually, certain units can be written and shared with other teachers who have similar classes. Filing these units for next year's teachers will be very helpful to them.
4. If an assignment is given, be sure that it is clear to the students. It is advisable to start the assignment in class so that students can ask questions about directions. Short assignments well done are much better for poorer readers than are long ones.
 5. Always set a purpose for the assignment as it is being given. Discuss with the students how they can preview the assignment before beginning the reading. Explain to them how being in the "mood" helps to understand what is being read. Show students how to go through the steps which will help them to do the assignment well. Discuss ways to improve memory after reading, and relate these suggestions to the actual assignment which is given.

REFERENCES AND RELATED BIBLIOGRAPHY

1. Courtney, Brother Leonard. "Study Skills Needed in the English Classroom," *Reading and Inquiry*, Proceedings of the International Reading Association's annual convention, 10, 1965, 98-102.
2. Dawson, Mildred A. *Developing High School Reading Programs*. Newark, Delaware: International Reading Association, 1967.
3. Dechant, Emerald V. *Improving the Teaching of Reading*. Englewood Cliffs, N. J.: Prentice-Hall, 1964.
4. Hafner, Lawrence E. (Ed.). *Improving Reading in Secondary Schools*. New York: Macmillan, 1967.
5. Johnson, Marjorie Seddon and Roy A. Kress. *Informal Reading Inventories*, Reading Aids Series. Newark, Delaware: International Reading Association, 1965.
6. Karlin, Robert. *Teaching Reading in High School*. New York: Bobbs-Merrill, 1964.
7. Kress, Roy A. "Identifying the Reading Difficulties of the College-Bound Student," *Vistas in Reading*, Proceedings of the International Reading Association's annual convention, 11, Part 1, 1966, 257-261.
8. Leedy, Paul D. *Read with Speed and Precision*. New York: McGraw Hill, 1963.
9. Perspectives in Reading No. 2, *Reading Instruction in Secondary Schools*. Newark, Delaware: International Reading Association, 1964.
10. Perspectives in Reading No. 4, *Developing Study Skills in Secondary Schools*. Newark, Delaware: International Reading Association, 1965.
11. Preston, Ralph C. and Morton Botel. "Study Habits Checklist." Chicago: Science Research Associates, 1957.
12. Robinson, Francis P. *Effective Study*. New York: Harper and Brothers, 1961.
13. Shepherd, David L. *Effective Reading in Science*. New York: Row Peterson, 1960.
14. Shepherd, David L. *Effective Reading in Social Studies*. New York: Row Peterson, 1960.
15. Strang, Ruth. *Diagnostic Teaching of Reading*. New York: McGraw-Hill, 1964.
16. Strang, Ruth and Dorothy Kendall Bracken. *Making Better Readers*. Boston: D. C. Heath, 1957.
17. Strang, Ruth; Constance M. McCullough; and Arthur E. Traxler. *The Improvement of Reading*. New York: McGraw-Hill, 1967.
18. Viox, Ruth G. "Suggested Plan for Organizing and Carrying Out a School-Wide Study Skills Program," *Reading Horizons*, 7, No. 4 (Summer 1967), 164-167.
19. Weiss, Jerry M. *Reading in the Secondary Schools*. New York: The Odyssey Press, 1961.