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ABSTRACT

Intended for regular teachers with mildly handicapped learners, the handbook covers techniques for adapting instruction, for compensatory instruction, for remedial instruction, and for teaching basic survival skills. An introduction surveys types of appropriate modifications for mainstreaming. Adaptive techniques discussed include the following: adjusting instruction for mainstreamed students, adapting textbooks, lowering readability, tape recording, adapting assignments, adapting study guides, using learning contracts, using motivational methods, and adapting tests. Techniques for compensatory instruction are discussed for language arts, mathematics, and vocabulary. Sample techniques include using a typewriter, organizing the notebook, making a multiplication aid, and using a keyword mnemonic method to recall vocabulary. Provided for remedial instruction are games appropriate for various subject areas (such as crossword math and a see through study sheet), techniques and materials for written expression, remedial reading activities, and spelling techniques. The final section covers survival skills with suggestions for teaching study skills, flowcharting arithmetic tasks, and learning to fill out forms. The appendix consists of suggested forms used for a mainstreaming program including a report form from the regular class to the learning disability resource room, a mainstreaming progress report, and a weekly assignment sheet. (DB)

E X C E P T I O N S :

A Handbook for Teachers of Mainstreamed Students

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Created for Dissemination by:

Project Mainstream in cooperation with
the Oklahoma Child Service Demonstration Center and
Developer/Demonstrator Project
Learning Disabilities Program
Rt. 3, Hillside School
Cushing, Oklahoma 74023

The work upon which this publication is based was performed pursuant to grant #[illegible] with the Division of Personnel Preparation of the U.S. Office of Special Education and Rehabilitation Services. It does not necessarily reflect the views of that agency.

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A C K N O W L E D G M E N T S

The contributions of research and expertise of the Project Mainstream staff and the Oklahoma Child Service Demonstration Center staff, Cushing, Oklahoma, are greatly appreciated. A special thanks is expressed to the project's resource room teachers for providing time-tested materials and ideas and to the project's secretary, Marta Harriger, for her work on the manuscript.

Project Mainstream Staff

and

The Child Service Demonstration Center Staff

PREFACE

This handbook was developed and is shared as a part of the dissemination effort of the Oklahoma Secondary Learning Disabilities Mainstreaming Project (Project Mainstream) in cooperation with the Oklahoma Child Service Demonstration Center.

Each of the products disseminated by Project Mainstream and the OCSDC is intended as a resource material to supplement workshops and training programs provided in Oklahoma and throughout the nation. This handbook is written in such a way, however, that it should prove beneficial to teachers whether or not related inservice has been provided.

Project Mainstream provides no cost inservice programs to school systems in Oklahoma only. Regular class teachers are instructed in time-tested ideas, strategies and techniques found effective for students with learning problems. A brochure explaining all services may be obtained by writing Project Mainstream, Hillside School, Route #3, Cushing, Oklahoma 74023.

As a member of the National Diffusion Network, the Oklahoma Child Service Demonstration Center is actively involved in assisting schools throughout Oklahoma and the nation to adopt this proven approach to working with learning disabled adolescents in grades 6-12. Workshops and training sessions (three consecutive days) are available upon request. Funding for training sessions may be provided by the National Diffusion Network, Title IV-C, P.L. 94-142 flow-through moneis, or other sources to be outlined by project staff. A brochure explaining all services and materials available may be obtained by writing the Child Service Demonstration Center, Hillside School, Route #3, Cushing, Oklahoma 74023.

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INTRODUCTION

This booklet on mainstreaming is directed primarily to regular classroom teachers who must deal with mildly handicapped learners in their regular classrooms. Teachers of exceptional learners, however, may find it to be a helpful resource.

Mainstreaming is apparently a little understood term among many teachers. Hopefully, this booklet will provide the teacher with practical information and techniques for use with the exceptional learner in the regular classroom.

Mainstreaming is a concept based on the fundamental belief that handicapped children will benefit from involvement with non-handicapped children in their educational environment. In fact, mainstreaming means that handicapped children will be educated with their peers in the regular classroom to the fullest extent possible.

The word "Mainstreaming" is not mentioned in Public Law 94-142. It is a term that teachers invented to adequately describe what was happening to their classroom as handicapped learners were returned from special classes.

"Least Restrictive Environment" is a phrase that is synonymous with mainstreaming. Stated in more explicit terms, the least restrictive environment means, "placing a handicapped learner in the educational situations which will

give him/her the best chance to succeed in life".

Specifically PL 94-142 has two very important things to say about the least restrictive environment:

1. to the maximum extent appropriate, handicapped children are educated with children who are not handicapped, and,

2. special classes (or special class placement) occur only when the nature or severity of the handicap is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily.

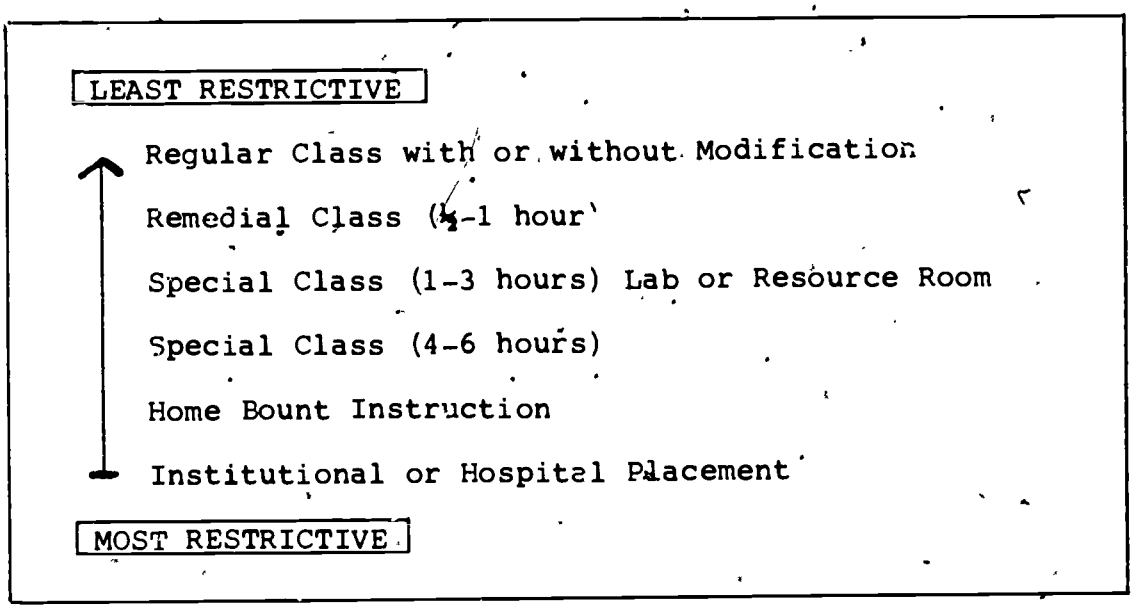
In the first statement, the two key words are "maximum" and "appropriate". The handicapped child is to be educated with non-handicapped children to the maximum extent possible, working within the specific curriculum of each school. The term appropriate means that placement should be based not only upon categorical guidelines, but also grades and previous academic performance. Even with these considerations, appropriate placement for many children will include at least one hour per day in a special class.

The second statement is quite specific in stating that, if it is at all possible, students should be maintained in the regular classroom. If modifications in the regular classroom are found to be unsuccessful, then and only then is special class placement considered.

The majority of this booklet is dedicated to sharing ideas, techniques, and strategies that might fall under the

category of supplementary aids and services for the regular classroom.

A continuum of alternative placement as specified in the law is diagrammed below:



The first placement option is the regular class, full-time, with or without modifications. Many handicapped students need only a small degree of modification to be able to function in a regular classroom, both academically and environmentally. For example, a wheelchair-bound student may need structural barriers removed, or a learning disabled student may require a highlighted, low readability textbook.

The second placement option is remedial class placement, also known as a developmental class. Remedial or developmental placement is primarily for students who have mild learning handicaps. These students require only one hour per day of special help in a class of 15 to 20 students.

The third option is placing the student in a special lab or resource room where s/he gets special help from one to

three hours in special academic areas.

Some students require a good deal of personal attention and individualized instruction for the greater part of their school day. Students in this placement option often are mainstreamed into regular classes only one or two hours a day. Elective classes such as art, home economics, and physical education are often successful programs for students in this situation.

Under PL 94-142, many handicapped children who had previously never been involved in education were discovered and are now receiving services. For some, home placement was selected for a portion of their school day. This particularly applies to students who are not physically able to handle a full day of school, even in a special classroom.

The option of placing a student in a hospital or special institution is also a possibility, if it is the recommendation of the placement team. This placement should be based on the needs of the student or his/her inability to handle a public school situation.

Another important factor for the regular classroom teacher to remember about PL 94-142 is that the decision for the type and amount of specialized programming for a student is not determined by one individual. Rather, a team composed of a regular educator, a special educator, a school psychologist or psychometrist, the parent, and an administrative representative (to commit the school's funds or services and represent the school's position) will make the decision.

Placement decisions must be based on documented evidence as determined by observation, formal and informal data. The regular class teacher's viewpoint is crucial, and includes classroom observations as well as modifications utilized to date and recommendations for the future.

Personnel	Role
Administrator	1. Encourages teacher participation 2. Allocates teacher time 3. Assists in scheduling meetings 4. Mediates parent-teacher discussion
Special Teacher	1. Schedules meetings 2. Principle author of IEP 3. Communicates with regular teachers prior to meeting 4. Initiates follow-up communication
Regular Teacher	1. Provides input on IEP objectives 2. Learns about strengths, weaknesses and learning style of the student 3. Works with special teacher throughout the year
Diagnostician	1. Provides test data and written report 2. Interprets test results in understandable terms 3. Supplies input on appropriate program for the student

The above diagram describes the minimum of school personnel that should be represented on the placement team. The possible roles they might perform to facilitate the placement process are listed. The parent, as mentioned earlier, is

also a member of the placement team. Other school personnel such as counselors and additional regular classroom teachers may be involved.

Schools that have effective mainstreaming programs are characterized first of all by administrators who are supportive of the concept. They set up contingencies where by regular and special class teachers can consult with each other about how to deal with those students who have learning problems.

Communication is essential. The regular classroom teacher can best utilize the ideas presented in this book when s/he knows the achievement levels of the student, as well as ways in which the student can and cannot learn. A great deal is expected of an effective special education teacher. They not only teach handicapped children, but serve as a resource person for other teachers.

Some examples of forms which have been used as communication aids between regular and special teachers are included in the Appendix.

The ideas in this booklet were selected upon recommendation and demonstration of their proven effectiveness in the regular classroom. In order to make the adjustments and modifications for successful mainstreaming, the ideas, strategies and materials are organized in a heirarchy of modification of deviation from the regular class curriculum.

The following diagram indicates a five-tier hierarchy with the base (largest area) being the regular developmental instruction utilized in the average regular classroom. This

is the step-by-step teaching that the regular instructor expects to cover in his/her regular class.

Tier two is the adaptive level of modification. This level is the most common, requires the least degree of change for the teacher, and is often done unconsciously. Adaptive techniques may be thought of as adjustments that the teacher makes to help a handicapped learner succeed in class.

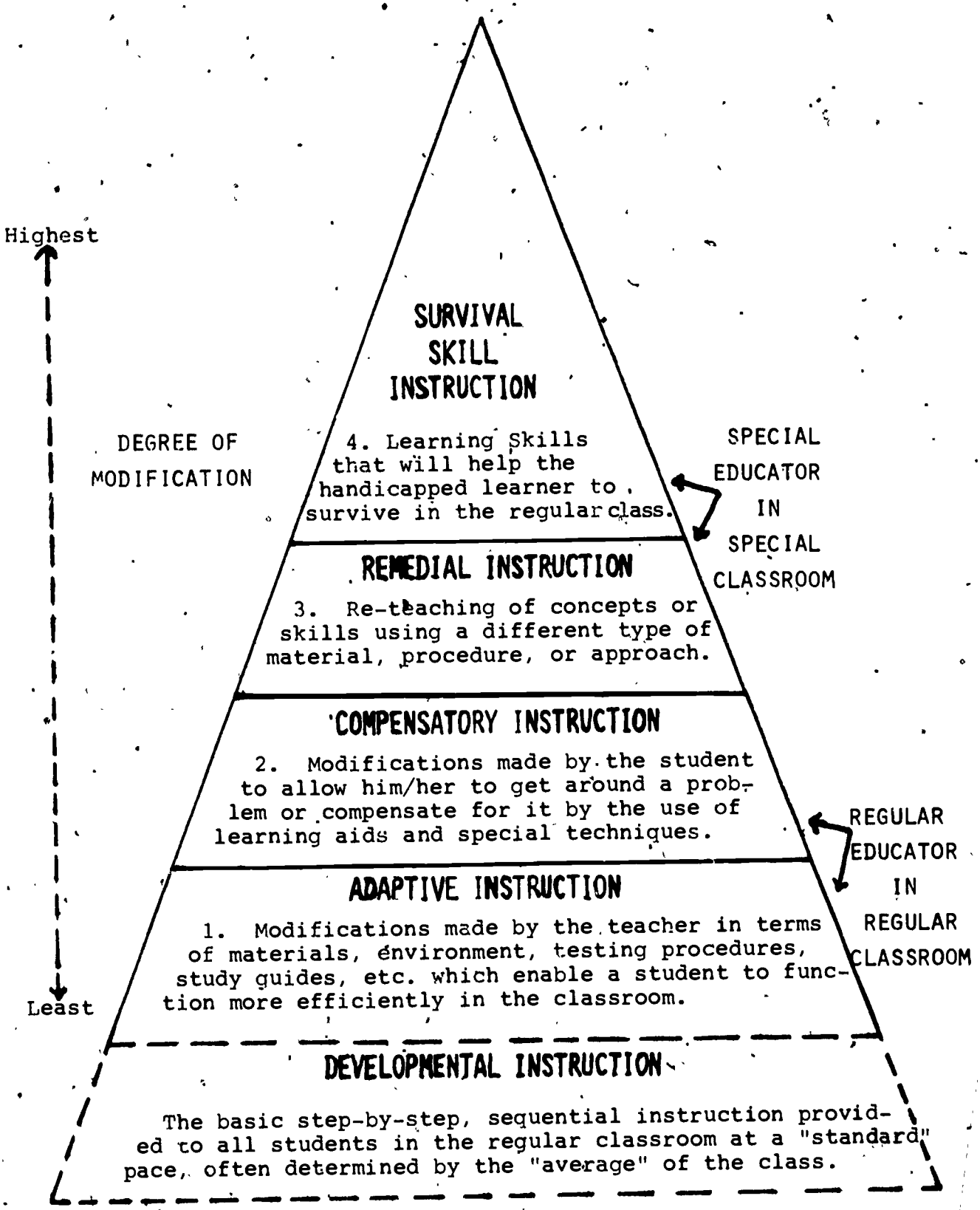
An example might be changing the student's seating location from the back of the room, where s/he is distracted, to the front of the room. Another example might be providing the student with a specialized study guide adjusted to meet his/her learning style.

Tier three is the compensatory level of modification. This level may be thought of as adjustments that the student makes to help him/her bypass or work around a learning problem. Some students may be able to comprehend the subject matter, but a lack of certain basic skills prevents them from dealing with it. A technique must be found to help him/her bypass the handicap that stands in the way of learning the material.

For example, a student who lacks organizational skills might utilize the organizational notebook idea that is explained on page 63.

Tiers two and three are most common in regular classrooms while tiers four and five are most common in special or remedial classes.

TYPES OF APPROPRIATE MODIFICATIONS FOR MAINSTREAMING



Tier four is the remedial level and primarily means that the teacher reteaches information, processes, or procedures that the learner has been exposed to before, but didn't learn. The remedial material that works best is that which approaches the problem in a different light.

For example, the student who has difficulty with rote memory problems may utilize the see-thru study sheet (see page 76) to learn the material.

Tier five is the highest degree of modification and involves teaching the student survival skills. In school, this includes such skills as how to take effective notes and how to study for specific types of tests.

In order to prepare students for adult responsibilities, survival skills could include how to handle a job interview and how to set up a household budget.

Each of the following sections are filled with suggestions made by successful teachers who have found that mainstreaming can and does work. Enjoy these ideas, strategies and techniques!

Other ideas on commercial materials for mainstreaming may be found in "The Multi-Media Catalogue"[1] and "Supplement I"[2] of the catalogue. Additional teacher and student made activities and materials may be found in "I Used to Could Spell Wensday"[3]. Ideas on prescriptive writing and formal or informal diagnosis are located in "Crosscurrents: A Prescriptive Teaching Handbook"[4].

Adaptive Techniques

ADAPTIVE TECHNIQUES

The regular classroom teacher can use the techniques described in this section to enable mainstreamed students to function in class. Some students may require assistance in simply reading the textbook or organizing the content, while others may need to have adapted tests in order to demonstrate mastery of the material.

There are four basic areas in which adaptive modifications can be made in regular classrooms. These are time, learning style, learning environment and content.

The following list represents an effort to summarize some ideas for working with mainstreamed students in a regular classroom. The list is by no means an exclusive one; teachers are encouraged to generate and try out additional ideas.

Each of these ideas has been used successfully by teachers. Every teacher will likely find some ideas s/he can use in the classroom, but not every idea will appeal to every teacher. The variety of techniques makes it possible for any teacher to find several ideas which will be useful with his/her students.

Instructional Adjustments for Mainstreamed Students

Time

Some students have not learned to work at the pace set in most regular classrooms. They may need some initial adjustments while they are learning to adapt. Others cannot work at this pace due to their disabilities (visual impairments, reading disabilities, or other learning disabilities, etc.). The teacher can adjust work time for the mainstreamed student by:

1. Allowing the student to work at a reading or writing assignment for short periods of time, followed by another type of activity. Many students cannot give full concentration to a task for more than 10-15 minutes.
2. Setting up a specific schedule for the students so that they know what to expect; try to forewarn them if you have to change or vary their routine. Some students require this type of structure, others do not. Teacher observations of behavior can help identify those students who need structure.
3. Giving the student more overall time to complete assignments.
4. Gradually lengthen work periods as the student begins to cope.
5. Alternating quiet and active time; having short periods of each; making movements as purposeful as possible.

Learning Style

Every student has a preferred mode for learning. Some learn best by seeing, others by hearing, and yet others by touching and moving. The school psychologist, psychometrist, diagnostician, or examiner should have some information about the student's preferred learning style. The special teacher will often know how his/her students can and cannot learn. When in doubt, ask the student how s/he prefers to learn new information.

Auditory Style

If the student is primarily an auditory learner adjust the mode of presentation for the student by:

1. Giving verbal as well as written directions in assignments.
2. Taping important reading material for students to listen to as they read a passage. Tape only essential information. A teacher or another student might do the taping.
3. Putting assignment directions on tape so that students can replay them when needed.
4. Giving the student oral rather than written tests. The teacher or another student can do this.
5. Having students drill on essential information by using a tape recorder, i.e., reciting information into the recorder and playing it back.
6. Using published audio tapes with students.
7. Having students drill aloud to themselves or to another student.

8. Dictating information into a recorder or to another student.

9. Having another student read important information to the mainstreamed student.

10. Having students read important information aloud to themselves or to another student.

Visual Style

If the student is primarily a visual learner, adjust the mode of presentation for the student by:

1. Having the student use flash cards printed in bold bright colors.

2. Having student close his/her eyes and try to visualize words or information in his head.

3. Providing visual clues on chalkboard for all verbal directions.

4. Having students write down notes and memos to themselves concerning important words, concepts, ideas.

5. Giving students written directions in assignments.

6. Allowing students to read information needed for assignments rather than relying on oral presentations.

7. Having students drill and study by the cover/write method.

8. Having a visual learner read to an auditory learner.

9. Allowing written reports or projects in lieu of oral presentations.

Kinesthetic Style

If the student primarily learns by moving or touching, adjust the mode of presentation by:

1. Using classroom demonstrations when possible.
2. Building models (perhaps instead of writing reports.
3. Using role-play or simulations (especially in social science courses).
4. Teaching the student to take notes.
5. Allowing the student to draw, doodle, etc. while s/he is listening.
6. Allowing the student to move about (within reason) during class or while working.
7. Using timelines for historical dates.
8. Using manipulable objects, especially in math, and especially when teaching abstract concepts such as fractional parts, measurement and geometry.
9. Allowing alternatives to written reports such as drawings, filmstrips, dramatizations, performing experiments, displays, etc.

Learning Environment

Some students do not function well in the traditional classroom. They may require adjustments in the learning setting, such as:

1. Permitting the student to do his work in a quiet, uncrowded corner of the room or even in the hall outside the room if he chooses to. However, do not isolate the student against his/her will.

2. Placing the student close to the teacher for more immediate help when s/he needs it.

Content

Many mainstreamed students are overwhelmed by the sheer volume of material to be learned. This is often due to a slow reading rate or low reading comprehension. Adjust type, difficulty, amount or sequence of material required for mainstreamed students by:

1. Giving them a lesser amount than the rest of the class, i.e., fewer math problems, fewer pages to read, etc.

2. Breaking their assignments down into very short tasks.

3. Putting only one or two math problems or study questions on a page, if necessary.

4. Giving them only one (or a few) questions at a time during testing.

5. Including in their assignments only that material which is absolutely necessary for them to learn.

6. Checking (✓) or underlining the textbook passages which contain the most important facts.

7. Using markers to tell them where to start or stop an assignment.

8. Using highlighted textbooks.

9. Giving them specific questions to guide their reading.

10. Showing them the exact paragraphs where information can be found.

11. Establishing only a few modest goals.

12. Developing with the student the ways to reach the goals.

13. Making certain the student's desk is free from all material except what s/he is working with.

14. Taking up the student's work as soon as it is completed.

15. Giving immediate feedback on tasks or work completed.

16. Keeping the number of practice items on any skill to a minimum.

17. Changing activities before the student's attention is gone.

18. Having on hand alternate and supplementary materials for optional projects.

19. Giving students several alternatives in both obtaining and reporting information - tapes, interviews, reading experiences, projects, etc.

20. Having frequent, even if short, one-to-one conferences.

Adapting Textbooks

Color Coding

Many mainstreamed students may not be able to read quickly enough to keep up with the rest of the class. Others may have poor reading comprehension, and must work extremely hard to remember the most basic facts from the textbook. There are students who can learn the material in a regular secondary school course, but are frustrated in their attempts to read and study the text. They may not study at all because they have found that "it doesn't do any good anyway"

These students have difficulty picking out the main ideas of chapters and other important information that is likely to appear on tests. They have not learned to anticipate the types of questions that a teacher may ask. One technique that can be very valuable to these students is color coding textbooks.

Color coding allows the poor reader to find the essential information while s/he is reading the text. The student does not have to "outguess" the teacher, since all the important information is highlighted. The volume of material to be studied is reduced, which reduces the frustration of the poor reader. Studying becomes a worthwhile task once the student knows what to study. Students using color coded texts have found that studying does pay, and their study habits and attitudes improve.

Most teachers used some form of color coding while they

were in college. The technique utilized here is a bit more structured. Color coding texts does involve a degree of teacher time initially. However, teacher aides or student aides can copy the color scheme into other copies of the text. Once a text is color coded, it is a very useful, adapted material for several years, until that text is changed. The return on the initial investment time is high.

Three different colors of highlighting pens are required. For this example, green, pink, and yellow pens will be used. With the green pen, highlight the vocabulary words and terms. The pink pen is used to highlight in-text definitions of these terms. Yellow is used for facts, names, dates, and other important information. (Topic sentences usually contain a good summary of important ideas and would be highlighted in yellow.) Provide a key in the front of the textbook for the student as a reference to the color scheme. Always use the same colors so that students will not become confused from one text to the next.

Ideally, the content area teacher will color code his/her own textbook. This can be done when the teacher is reading the chapter prior to teaching. If another person, such as the resource room teacher, prescriptive teacher, or aide is doing the color coding, the material to be highlighted may come from the questions at the end of the chapter or a study guide provided by the content area teacher.

In summary, the advantages of color coding a textbook are:

1. It enables the slow or low level reader to use the standard textbook, thus reducing the need for supplementary materials and singling out the student as "different".

2. Color coding makes it visually clear to the student what information is expected for mastery on examinations.

3. Color coded texts provide an excellent guide for test review. All students might be encouraged to use them for review.

4. The teacher benefits also, for color coding a text helps him/her assimilate the information, organize lectures and prepare examinations.

5. Sample marking system:

Green - vocabulary

Pink - definitions

Yellow - facts, dates, and topic sentences.

Readability (Fry Formula)

Most textbooks are written at a reading level that is higher than the grade level indicated on the text.. For example, many ninth-grade science texts are written at a college reading level. Teachers do not have to rely on the publisher's estimate of the reading level. Anyone can find the reading level of a class text in less than ten minutes by using the following seven steps:

1. Randomly select three passages from the text and count out 100 words in each, beginning at the start of a paragraph. One passage should come from the first

part of the book, one from the middle, and one from the end. DO count proper nouns, initials, acronyms, and numerals. A word is defined as a group of symbols with a space on either side. Thus, Joe, IRA, 1945, and $ are each counted as one word.

2. For each passage, count the total number of sentences. Estimate the length of the fraction of the last sentence to the nearest tenth.

3. Count the total number of syllables in each 100 word passage. A syllable is defined as a phonetic syllable. Generally, there are as many syllables as vowel sounds. When counting syllables for numerals and initials, count one syllable for each symbol. For example, 1945 is four syllables, IRA is three syllables, and $ is one syllable.

4. Find the average number of sentences for the three passages.

5. Find the average number of syllables for the three passages.

6. Plot the average number of sentences and the average number of syllables on the graph. The area where the dot is plotted will give you the approximate grade level.

7. If a great deal of variability is found in the syllable count or sentence count, use more passages to find the averages.

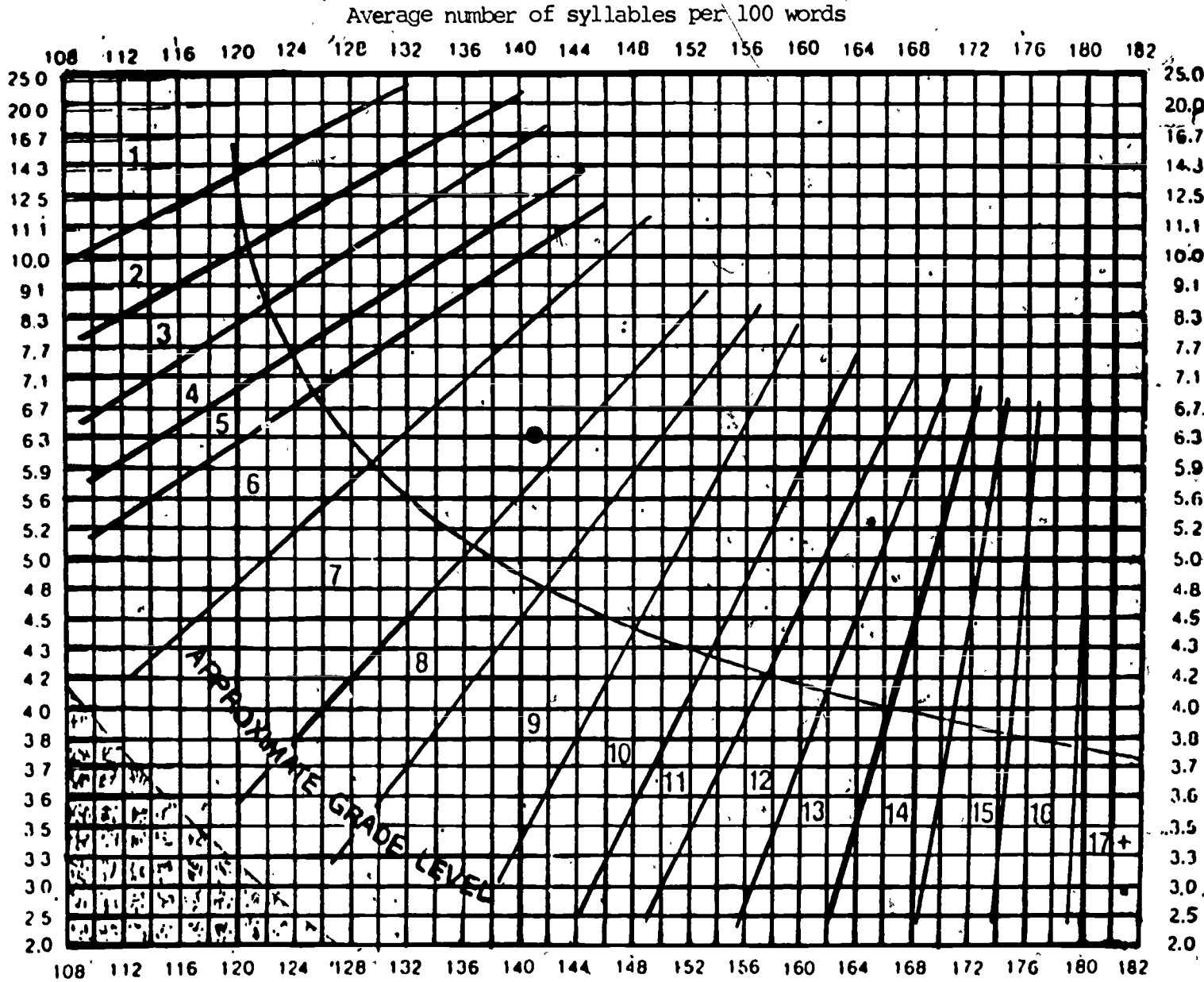
The following worksheet can be used to summarize the results of the calculations for each text. (Page 22.)

What is the Reading Level of Your Textbook?

It's probably higher than you think. Anyone can compute the readability of a class text in 15 minutes or less. You have to be able to (a) count to 100, (b) round off to the nearest tenth, (c) break words into syllables, (d) compute averages.

FRY'S GRAPH FOR ESTIMATING READABILITY - EXTENDED

By Edward Fry, Rutgers University Reading Center, New Jersey



Directions: Randomly select 3 one hundred word passages from a book or an article. Plot average number of syllables and average number of sentences per 100 words on graph to determine the grade level of the material. Choose more passages per book if great variability is observed and conclude that the book has uneven readability. Few books will fall in gray area but when they do grade level scores are invalid.

Count proper nouns, numerals and initializations as words. Count a syllable for each symbol. For example, "1945" is 1 word and 4 syllables and "IRA" is 1 word and 3 syllables.

EXAMPLE:	SYLLABLES	SENTENCES
1st Hundred Words	124	6.6
2nd Hundred Words	141	5.5
3rd Hundred Words	158	6.8
AVERAGE	141	6.3

READABILITY 7th GRADE (see dot plotted on graph)

FRY READABILITY FORMULA

A. Book Title _____ Publisher _____

Grade Level _____ Copyright _____

Subject _____

PAGE	START	END	SYLLABLES	SENTENCES
a.				
b.				
c.				

TOTAL _____ _____

÷ 3 _____ ÷ 3 _____

average average

READABILITY _____

B. Book Title _____ Publisher _____

Grade Level _____ Copyright _____

Subject _____

PAGE	START	END	SYLLABLES	SENTENCES
a.				
b.				
c.				

TOTAL _____ _____

÷ 3 _____ ÷ 3 _____

average average

READABILITY _____

C. Book Title _____ Publisher _____

Grade Level _____ Copyright _____

Subject _____

PAGE	START	END	SYLLABLES	SENTENCES
a.				
b.				
C.				

TOTAL _____ _____

÷ 3 _____ ÷ 3 _____

average average

READABILITY _____

We recommend the Fry Formula because of its simplicity and accuracy, especially for secondary level materials. Most publishers of low-readability versions of testbooks use the Spache or Dale-Chall Formula. These formulas usually yield a lower estimate when used on secondary texts. This is due to the fact that they eliminate proper nouns in calculating readability. They also assume that the student has a working sight vocabulary. Elimination of proper nouns is inappropriate for secondary texts, since the students are required to learn those terms.

Students are often assigned reading material in magazines. It is wise to check the readability of any material that is assigned. Some readability levels for popular magazines are as follows (levels may vary with different issues of the periodical):

Time - College Level

U.S. News and World Report - College Level

Reader's Digest - 12th

Saturday Evening Post - 11th

Cycle - 9th

Popular Science - 9th

Glamour - 8th

Readability cannot be guessed, it must be calculated. Activities conducted by our staff reveal that teachers consistently underestimate the reading level of written material.

Lowering Readability

Most textbooks are written at a reading level higher than

the grade level for which the book is intended. This makes it especially difficult for less able readers to get through the text. Color coding can alleviate many of the problems that a poor reader may have, but occasionally even the color coded text is too difficult. Imagine a ninth grade student reading on the second grade level trying to read his/her science book, which is written at the thirteenth grade reading level. The exercises accompanying the text are written at this same level. Although this student is quite capable of learning the facts and concepts in the course, s/he needs some adaptation of the materials in order to read and study. Lowering the readability of a part of the text is one method to assist such students.

The most likely targets for lowering readability are chapter summaries. It takes only a short time to lower the readability of a chapter summary, and many students can use that modified summary for as many years as the text is in use. Some teachers may rewrite certain difficult passages in the margins of the text.

Four major factors affect the readability of materials:

Vocabulary - To eliminate vocabulary problems:

1. Edit to control vocabulary at desired readability by substituting familiar synonyms from word lists. (Be careful not to water down the material and lose interest level.)
2. Make a slight revision or add an insertion. It may be necessary to add an extra phrase, sentence, or possibly even a paragraph in order to

make an abstract concept clearer.

3. Completely rewrite the material to make it easily read, yet still representative of the writer's intent.

Sentences - Sentence length and construction influences readability. Long sentences are generally more difficult to read. Complex sentences cause more reading difficulty than simple sentences.

To eliminate sentence problems:

1. Shorten sentences found in the original text.
2. A slight revision may eliminate any problem.

Paragraphs - The most common paragraph construction is that with the topic sentence at the beginning of the paragraph. Any deviation from this basic pattern could possibly cause the material to be more difficult to read.

Physical Format - Often the physical layout of the material on the printed page can affect readability. No formula has provisions to measure the effect of format on readability, but it must be taken into consideration.

The following items affect format:

1. Print size, type, and clarity
2. Graphic aids
3. Attractiveness of layout
4. Quality of paper.

The chart on page 27 is an aid for reducing readability to a specific level. For example, if you wish to reduce a passage so that it is no higher than fourth grade reading level, you would have no more than ten sentences in each

hundred words and no more than ten words per sentence. No more than two difficult words (words of three or more syllables) would be included in each one hundred words. Proper nouns, compound words, and words which are made three-syllable by adding es or ed are not counted as difficult words.

The following passages convey the same information, yet one is written at the college level and the other within the third grade level.

BETWEEN ICE AGES

When the Chinese learned, thousands of years ago, that ice enhanced the taste of hot weather beverages, a primitive form of refrigeration emerged. Ice was cut in winter and packed between straw and chaff, for preservation until summer when it was used for cooling beverages.

In Ancient Egypt, similar tastes for cool beverages developed, but a different solution was forthcoming since a more temperate climate kept Egypt ice free even in winter.

Clay jars, filled with water, were placed on rooftops at sundown where the exceptionally dry desert breezes would evaporate the moisture seeping through the porous walls, cooling the water inside.

(Adapted from A to Zero of Regrigeration, General Motors Corporation, Revised 1964)

BETWEEN ICE AGES
(Revised Readability)

The Chinese learned long ago that ice made hot weather drinks taste better. So they learned how to cool them. Ice was cut in winter and packed in straw. It was kept there until summer and used to cool drinks.

People in old Egypt also enjoyed cool drinks. They found another way to cool drinks for they had no ice in winter.

They filled clay jars with water and put them on the rooftops when the sun went down. Very dry desert winds would let some of the water get out of the jars. This is called evaporation. It cooled the water inside the jars.

Maximum Grade Level	Maximum Number of Sentences per Sentence Group	Maximum Words per Sentence	Total Difficult Words per Sentence Group
4	10	10	2
6	7	15	3
8	5	20	5
10	4	25	7
12	3	30	8

The following pages are an example of a chapter summary with reduced readability. The original passage was written at the ninth grade reading level; the reduced passage is written at the third to fourth grade level. The content remains the same.

ORIGINAL MAIN IDEAS

1. Major surface currents begin in the tropics and flow in great circles in each ocean and in each hemisphere. Currents are turned to the west by the trade winds, north and south by the continents, east by the westerlies, and south by the other continents.

2. Surface currents carry warm waters to some shores. They carry nutrients from place to place.

3. Deep ocean currents move toward the equator beneath the surface. These currents are cold and dense compared to the surface currents.

4. Tides on the side of the earth facing the moon are caused by the moon's gravitational attraction. On the far side of the earth, centrifugal force is probably the main cause of tides.

5. Spring tides occur when the moon, sun and earth are in line with each other. Neap tides result when the sun and moon are at right angles to each other.

6. Waves are rhythmic movements of water including tides, tsunamis, and wind waves.

7. Wave base of deep-water waves is above the ocean bottom. Shallow-water waves form in water that is shallower than half of the wavelength.

8. Water carried onto the shore by waves returns to the ocean basin because of the pull of gravity.

9. Waves and currents carve rocky shores into notched cliffs, cut benches, stakes, and caves. Boulders carved from the shore are ground smaller by abrasion. Finally the loose material may be transported to another location.

10. Shore deposits include beaches, berms, bars, spits, and barrier islands.

11. Destruction and construction by waves and currents are never ending processes.

LOWERED READABILITY OF ORIGINAL MAIN IDEAS

1. Surface currents start in the tropics. They flow in big circles in each ocean. The trade winds turn the currents west. The continents turn the currents north and south. The westerlies turn the currents east.

2. Surface currents carry warm waters and nutrients (foods) from place to place.

3. Deep ocean currents move under the surface. They move to the equator. They are cold and dense.

4. The moon's gravity causes tides on the side of the earth facing the moon. Centrifugal force causes tides on the other side.

5. Spring tides happen when sun, moon, and earth are in a line. Neap tides happen when the sun and moon are at right angles.

6. Waves are moving water in a rhythm. Three kinds of waves are tides, tsunamis, and wind waves.

7. Wave base is the depth where the motion of the wave stops. It is above the ocean bottom in deep-water waves. Shallow-water waves are in water that is shallower than half the wavelength.

8. Gravity makes the water in the waves go back to the ocean basin.

9. Waves and currents can make notched cliffs, benches, stakes and caves. They can make boulders (big rocks) smaller by abrasion. Loose material can be moved to other places.

10. Beaches, berms, bars, spits, and barrier islands are all shore deposits.

11. Destruction (destroying) and construction (building) by waves and currents never ends.

Tape Recording

Tape recordings of content area materials used in the education of secondary level students can be an effective technique for teaching the LD student. Tapes can make the

material presentation appropriate for the cognitive and physical characteristics of the learner. For example, an inefficient reader may benefit from an oral presentation of textbook material. To maximize the effectiveness of such tape recordings, several basic principles of organization and presentation should be followed.

Editing - Identify instructional objectives and record verbatim only those passages relevant to the objectives. Summarize or omit other material.

Teaching - The teacher may insert statements in order to demonstrate the use of skimming, illustrations, graphs, comprehension questions, summaries and other aides. Use the tapes to teach or reinforce good study habits.

Motivation - Students learn best when motivation is high. Motivation can be enhanced by selecting material of interest to the student. Motivation and interest can be created by an effective introduction or by involving the student in activities or questioning.

Marking - Students may wish to follow along in their texts while listening to the tapes. Therefore, a marking system is required. Following are some suggested markings for the margins:

Summarized Material	§	Stop the tape for activities or to respond to questions	✳
Omitted Material	|	Material recorded verbatim	|

Tape recording need not be done by the content area teacher. Many civic groups are willing to tape record text-

books - they simply need to be asked. Senior Citizen groups are also usually willing to tape the materials. High school speech classes, college fraternities, sororities, and residence hall groups should also be contacted about recording.

It is best if the tapes are available for listening through headsets in the regular classroom or study hall. The school library may also stock the tapes for listening and/or check out.

Adapting Assignments

Students are often assigned the task of writing reports. Students with difficulties in reading or written expression may turn in partial or incomplete reports, or may not even make an attempt to do an assignment. Report-writing is not an easy task for these students, even when they know the material. Other students may experience anxiety when assigned an oral report. If the students are given several options instead of a standard format for reports, they may show greater interest, motivation may be higher, and the teacher will probably find that the quality of his/her students' reports has improved. The following is a list of thirty different ways to make reports.

Report Options: Do It Your Way!

1. Selling a book, idea or concept: the student trys to convince the rest of the class that his/her idea is the best of its kind. Example: Two students may try to sell two different views of the same topic and see who can do the best job.

2. Radio broadcasts: Students may act as newsmen broadcasting descriptions of exciting events into a tape recorder.

3. Panel: Panels may be formed by several students reporting on the same topic.

4. Character letter exchange: Letters may be exchanged between students playing different characters from textbooks.

5. Letters to authors, athletes, politicians, and local connuminity and civic leaders.

6. Different endings: Could the event or story have ended differently? How?

7. Code: Reports can be written in code with a key included.

8. News Stories: Write the report in newspaper format with headlines and by lines.

9. Illustrate a sequence of events or experiments.

10. Critiques: Students write reviews on topics, events, or experiments. They are typed up. A rating system can be developed to rate each.

11. Make models of things. Example: Capitol of Oklahoma, wireless radio, molecules.

12. Make a display that correlates with an era, culture, event or experiment.

13. Paint a mural. Depict sequences of events. Example: "Trail of Tears" or birth of a chicken.

14. Make a large map showing the action of your story. (Use this as you describe the action.)

15. Make a poster to advertise or sell a book to the class. ("Sell" is to make the other students want to read the book.)

16. Make up a crossword puzzle about the study. (Give a short oral report and let the class solve your puzzle.)

17. Make a panel cartoon illustrating some humorous part of the story or event.

18. Make a collage (3-D picture) using seeds, beans, macaroni, shells, grass, branches, twigs, fabric, paper, beads, etc.

19. Make a filmstrip . . . use a projector to show it.

20. Make your own "Reading Log" by preparing a three-ring notebook or book with brads that can be opened to add new "books read". Each time you complete reading a book, you briefly summarize the book and maybe draw an illustration or paint a scene that would tell others a little about the story and put it inside your "reading log". Make an attractive cover for your book so you will be glad to share it with others in your room or at book fairs and with your parents.

21. Diaries: Students can write diaries as if they were characters in a text or they can pretend to visit a famous person and keep a log.

22. Dramatize an interesting or exciting incident from the text to or with the class.

23. Make a bulletin board display for the classroom or perhaps in the school hall.

24. Read two or more accounts of the same event, story, etc., and compare the two versions.

25. Write a short play or scenerio.

26. Develop a visual timeline such as a biographical sketch or historical event.

27. Demonstrate by performing experiments and documenting each phase.

28. Travel talk about a state or county trip using words, pictures, and maps.

29. Make a mobile using pictures or characters from texts.

30. Have a puppet show to relate an event or explain a concept.

Filmstrips

Several of the above options mentioned filmstrips. Students seem to enjoy making filmstrips instead of writing reports. In addition, study guides, drills, and practice exercises for students needing extra help can be put onto filmstrips. These are motivating for students to study. Accelerated students might put the main ideas from a chapter onto a filmstrip for other students to use.

Blank filmstrips may be ordered through I.E.S.S. (see Multi-Media Catalogue). This filmstrip has a dull side and a shiny side. The student can type or write with #2 pencil on the dull side. A regular pencil eraser will erase both type and pencil. A transparency pen can be used on the shiny side. Water-based pen markings can be erased easily, but the colors will run if they become wet. Permanent markers may be erased with hairspray.

Along the sides of the filmstrip are holes. Four holes equal one frame. Students will need to leave three frames (12 holes) at the beginning of the filmstrip for a lead-in.

Through the use of filmstrips, slides, etc., students can make more creative, original, and interesting reports.

This adaptation helps all students, in addition to providing an option for those who are mainstreamed.

Cloze Procedure

The cloze procedure was developed by Wilson Taylor in 1953 and is based upon the psychological theory of closure. This theory states that a person wants to complete any pattern which is not completed.

Use of the cloze procedure will help students develop the ability to handle fill-in-the-blank types of tests. It motivates students to read a passage more carefully. Practice using the cloze procedure is especially effective with chapter summaries. It is an excellent technique for improving students' reading skills as well as content area knowledge. Students learn to use context (meaning) clues to identify words.

The cloze procedure is simple to use. The teacher simply copies the passage and omits every seventh word. For simple passages, every fifth word might be omitted, and for more difficult passages, every ninth word might be omitted. The first and last sentences are left intact. The students then attempt to fill in as many of the blanks as they can. Any good synonym is acceptable.

Other uses of the cloze procedure might be:

1. Vocabulary terms are omitted.
2. Parts of speech are omitted (i.e., delete all verbs, all nouns).
3. Prefixes and suffixes are omitted.
4. Historical dates are omitted.

5. Mathematical concepts and terminology are omitted.

6. Proper names and places are omitted.

7. Vocabulary Development - new words, synonyms, antonyms.

Adapting Study Guides

Many teachers provide study guides for their students. Some of these are to be filled in by the student, others summarize the material in an orderly fashion. If possible, study guides should be typed (double-spaced). The page number on which the answers may be found should be noted. Vocabulary words and terms should be underlined.

Beyond these basic guidelines there are numerous ways to make study guides that will help mainstreamed students as well as others. Teachers should pay attention to readability levels when they are constructing study guides. Abstract concepts should be made as clear as possible. Drawings may help visual and kinesthetic learners, although auditory learners may find them difficult.

Several sample study guides are included on the following pages. The first is a traditional study guide for Oklahoma History that has been adapted by organizing it sequentially and the page numbers on which the answers may be found are indicated.

The second shows a textbook study guide that has been adapted. The readability has been reduced, and each completion item is on a separate line, making the question more clear. A matching type study guide is also included.

The last study guide is designed for use by the student.

It summarizes the chapters and provides an opportunity for the student to quiz himself or herself. The student simply covers the right-hand column and tries to guess the answer. S/he then checks his/her answer by moving the cover sheet down.

Study Guide #1
Chapter 17
Oklahoma History

Page 230

1. When was the name Oklahoma officially used?

2. What does the name Oklahoma mean?

Page 230 and 233

3. What were the provisions of the Enabling Act?

Note: The Enabling Act required that certain definite provisions (or conditions) be included in the state constitution.

Pages 236-239

4. What were the provisions to be included in the state Constitution?

ORIGINAL FORMAT

Study Guide #2

Name _____ Date _____

D. Completing Ideas

Fill in the following blanks correctly using the listed words.

amorphous	lithosphere	organic	silicon
chemical composition	luster	oxygen	solid
crystalline	metamorphic	rock-formers	weathering
igneous	mineraloid	sedimentary	

At least 88 elements are found on the (1)_____. Of these, (2)_____ is the most abundant and (3)_____ is next most abundant.

Minerals may appear in many shapes. Minerals with visible atomic particles are called (4)_____. A(An) (5)_____ solid, with no recognizable crystal form even when examined with X-ray is properly called a(an) (6)_____. A substance may be a(an) (7)_____, but it is not a mineral if it is formed of (8)_____ material. Minerals have metallic (9)_____ if they reglect light. Each mineral has a(an) (10)_____ which within certain limits is always the same for that mineral.

Twelve of the most abundant minerals are called (11)_____. The parent rock form which all others come is (12)_____. Exposure at the surface cause a change in the rocks called (13)_____ to take place. When the changed rocks are reburied, they may become (14)_____ rock. If they are buried so deep that heat and pressure are extreme, they become (15)_____ rocks.

REVISED STUDY GUIDE

Chapter 4, Matter of the Lithosphere

Name _____ Date _____

D. Completing Ideas

Fill in the blanks. USE THESE WORDS.

amorphous	luster	rock-formers
composition	metamorphic	sedimentary
crystal	mineraloid	silicon
igneous	organic	solid
lithosphere	oxygen	weathering

1. The earth's crust is the _____.
2. The most common element is _____.
3. The next most common element is _____.
4. If you can see the atomic pattern, the mineral is a _____.
5. _____ minerals do not have a crystal form.
6. They should be called _____, not minerals.
7. Minerals are always _____.
8. Minerals are not _____.
9. If minerals reflect light, they have metallic _____.
10. Each mineral always has the same _____.
11. Twelve of the common minerals are called _____.
12. All rocks come from _____ rock.
13. _____ changes rocks at the surface of the earth.
14. Rocks that harden near the surface are called _____.
15. Rocks that are changed by great heat and pressure are called _____.

ALTERNATIVE FORMAT

Chapter 4, Matter of the Lithosphere

Name _____ Date _____

D. Completing Ideas

Fill in the blanks.

____ 1.	The earth's crust	A. crystal
____ 2.	The most common element	B. mineraloid
____ 3.	The next most common element	C. oxygen
____ 4.	You can see the atomic pattern	D. lithosphere
____ 5.	Does not have a crystal form	E. amorphous
____ 6.	Not really minerals	F. silicon
____ 7.	Minerals are always _____.	G. organic
____ 8.	Minerals are not _____.	H. rock-formers
____ 9.	The way light reflects	I. composition
____ 10.	Each mineral has the same _____.	J. solid
____ 11.	Twelve of the common minerals.	K. luster
____ 12.	All rock comes from this.	L. sedimentary
____ 13.	Changes rocks at the surface	M. rocks
____ 14.	Hardens near the surface.	N. igneous
____ 15.	Changed by great heat and pressure	O. metamorphic
____ 16.	Minerals or mixtures of minerals	P. diamonds
____ 17.	The hardest mineral	Q. weathering
____ 18.	Minerals are made by	R. streak
____ 19.	The color of the mineral powder	S. silicates
____ 20.	Important for only a few minerals	T. specific gravity
____ 21.	How heavy the mineral is	U. nature
____ 22.	Have single chains and break smoothly	V. color
____ 23.	The most common minerals.	W. pyroxenes

Understanding the World, Chapter 18

Eastern Europe and Asia

1. Rulers of Russia	1. Czars
2. Rulers who run the government as they wish	2. Absolute Monarchs
3. Many _____ became serfs	3. Peasants
4. Changing a country so that it is more like Western Europe	4. Westernization
5. A czar who wanted Westernization	5. Peter the Great
6. A czar who gave nobles more power	6. Catherine the Great
7. This czar freed the serfs	7. Alexander II

1. The Southeastern part of Europe	1. Balkans
2. The _____ Empire ruled the Balkins	2. Ottoman
3. Love and Loyalty for a country	3. Nationalism
4. These people won their freedom from the Ottoman Empire	4. Greeks
5. The _____ War started between the Russians and the Ottomans	5. Crimean

1. Having little or nothing to do with other countries	1. Isolationism
2. Secret trading that is against the law	2. Smuggling

1. A dangerous drug made from poppies	1. Opium
2. The British Beat th Chinese in the _____ war.	2. Opium
3. When one country controls trade in a part of another country	3. sphere of influence
4. A plan that asked that all countries could have the right to trade with China	4. Open Door Policy
5. An uprising by the Chinese against foreign people	5. Boxer Rebellion

EXAMPLE: Chapter Summary 7th Grade History Text

CLOZE COPY

The Monroe Doctrine. In 1823, President Monroe stated a doctrine that has _____ a key part of our foreign policy. He said _____ the Americas were no longer open for the setting _____ of new European colonies. Thus, our country had won _____ important place in the world. In these years, the _____ of our people grew to 23,000,000.

Our frontier moved _____ the West. Each grew in its own way. In _____ South, plantation life became most important. In New England and _____ Middle States people turned to manufacturing and trade.

More _____ more people moved west to find new farm lands. _____ people were hardy. They suffered on the trail as _____ went west; they fought indians; they tamed the wilderness. _____ time, they made new lives for themselves. Thus, better transportation made it easier for East and West to trade and travel.

MASTER COPY

The Monroe Doctrine. In 1823, President Monroe stated a doctrine that has become a key part of our foreign policy. He said that the Americas were no longer open for the setting up of new European colonies. Thus, our country had won an important place in the world. In these years, the number of our people grew to 23,000,000.

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More and more people moved west to find new farm lands. These people were hardy. They suffered on the trail as they went west; they fought indians; they tamed the wilderness. In time, they made new lives for themselves. Thus, better transportation made it easier for East and West to trade and travel.

Maze Procedure

The maze procedure is much like the cloze procedure but differs in that the student has two or more choices to place in the blanks. This procedure is especially helpful for teachers who utilize the multiple-choice type of testing format. Through this non-graded activity, students learn to deal effectively with multiple-choice situations.

By having to make a choice, students will be more likely to attempt to comprehend what they are reading. This procedure is best used with teacher handouts, review, and chapter summaries. (For example see the teacher handout on the following page.)

Contracts

One method of motivating some mainstreamed students is through contracts. Some students are not motivated by a grade each nine weeks; they need some type of structure for their day to day activities. Following are some guidelines for writing contracts and a sample contract which can be easily modified.

GUIDELINES FOR WRITING CONTRACTS

1. The contingency (reward) should be immediate. This is especially important in the initial stages of contracting. At first, tasks should be small and the reward presented immediately. The length of the task and delay of the reward can be altered as the student becomes successful at completing contracts.

General Business

While much of the (1)_____ that a secretary handles consists of letters, there may (2)_____ inter-office memorandums, telegrams, reports, and instructions. Each type of (3)_____ requires careful attention to details.

When a letter is (4)_____, the director will often begin with the salutation and (5)_____ the secretary to locate the address of the person (6)_____ business to whom the letter is written. Generally, the (7)_____ will pass on to the secretary the letter s/he (8)_____ answering, and on it the secretary will find the (9)_____ for the person.

It is very important that the (10)_____ of the addressee be spelled correctly and that the (11)_____ title be used. If the director is not (12)_____ a letter, s/he may dictate the name and address. (13)_____ such instances, the secretary may want to write the (14)_____ names in longhand to be sure that the name (15)_____ correctly.

(1)	dictation information addressee	(2)	to be of	(3)	secretary spelling dictation	(4)	dictated correspondence spelled
(5)	removed expect want	(6)	and or find	(7)	dictator person single	(8)	checked are is
(9)	checked address begin	(10)	title separate name	(11)	correct notebook proper	(12)	spelling answering separate
(13)	Arise Where In	(14)	different proper quickly	(15)	at is spelled will		

2. Reward frequently with small amounts.

A field trip at the end of the month is not as effective as smaller rewards earned weekly or daily. If a larger reward is used, frequent and small rewards (tokens) which the student can accumulate to earn the large reward are recommended. Partial grades for the term may be used as rewards.

3. The contract should call for and reward accomplishment rather than obedience.

The long-term goal is to eliminate the use of contracts. This is facilitated by rewarding the accomplishment of the student (five problems worked correctly) rather than his obedience ("If you do your assignment,..").

4. Reward the performance only after it occurs.

5. The contract must be fair.

The reward must be related to the length and difficulty of the task.

6. The terms of the contract must be clear.

Put both the objectives and the reward in concrete, behavioral terms. Ambiguity will defeat the purpose.

7. The contract should be stated in positive terms.

8. Use the resources of the home to provide rewards.

Many students can be rewarded by privileges, etc., at home for accomplishments both at home and at school. Working out a contract with the parents is one way to involve them in the student's education.

CONTRACT

I, _____ will begin the procedure (or activity) indicated below.

I will begin within this next week, the week of _____, and continue the procedure (or activity) through _____, 19___.

The procedure (or activity) to be implemented is:

_____

_____

_____

_____

_____

_____

Upon completion of this contract, I will receive:

_____

_____

_____

_____

Signed, _____ this _____ day of _____, 19___.

Witnessed by, _____ this _____ day of _____, 19___.

Motivation

All students are not motivated by the same things, and, the same student may be motivated by different things on different days. The Incomplete Sentences Test found in "Diagnostic Forms Book"[5] may be helpful in determining a student's likes and dislikes. Dr. R.C. Bradley, Professor of Education, North Texas State University, contends that the following are germane to motivation:

1. "Low motivated students ought to keep many of their own records of progress because they are typically influenced in positive ways by knowledge of the results.

2. "Kids who strive hard in other areas, for example sports, and do not make the showing that they aspired to make, suffer motivational loss and it becomes noticeable in other school areas as well as in daily life patterns.

3. "Students have higher attendance records in classes where the teacher maintains a classroom atmosphere charged with significant ideas, friendliness, and acceptance; where textbooks are but a source of information, not the total course, where test anxiety is kept to a minimum and where kids truly feel they will be missed if they don't show up.

4. "Setting personal goals and standards of excellence for themselves increases students' motivation for achievement.

5. "The types of questions a teacher asks affects the motivational output energy of his students. The higher the level of questioning going on in a classroom, the greater the motivational output of the students if those questions are pitched to individual intellectual capacity.

6. "Competitive classrooms are breeding grounds for anxiety, despair and defeat. Unless used most judiciously, incentives and rewards (A's on report cards, honor rolls) serve the student more to have the feeling of ignoble satisfaction that he is better than someone else, then they encourage him to be more highly motivated to do good work in school.

7. "For those who wish to raise the level of aspiration of students who are failing, the only effective means appears to be a series of successful experiences.

8. "The teacher's attitudes toward himself and others are as important, if not more important than his techniques,

practices, or materials. In short, a teacher with positive attitudes can promote a positive classroom atmosphere, while a teacher with negative attitudes promotes a feeling of negativism within his students.

9. "If teachers prolong their average 'wait time' to five seconds before commenting on a student response, length of student responses will increase measurably.

10. "Teachers tend to motivate students at the beginning of the lesson, rather than in the middle or just a few minutes before the close of the class period where motivational techniques are more sorely needed.

11. "The larger the enlistment of fathers in school functions, the lower the percent of discipline problems of the male student.

12. "Students who are given "blanket" assignments, with little or no individualization according to their abilities, tend to become anxious about their work and work themselves into states of mind that border on psychological frustration. Stress and tension mount and weaken their effectiveness on what they do try to do.

13. "The teacher's vel of physical fitness has a direct influence on the motivational output of his students. The teacher who is dragging by Wednesday is out of the race by Friday. Evidently physically fit teachers have high enough energy levels to be able to dig further into their resources and are able to become more responsive as students' needs increase as the week progresses. Seemingly, physically fit teachers have fewer motivational problems with their students.

14. "You can't motivate anybody until you first become inspired yourself. After the first three or four years of teaching on the job, one remains the type of teacher he has already become in the short time unless he continuously seeks to improve himself as an instructor."

Adapting Tests

Some students with reading difficulties may not be able to succeed when presented with a regular class test. Even though they know the material, the awesome task of reading a test, understanding the questions, and giving an answer under pressure may be too much for them. They may also need some help with spelling the answers. Some students may need to

tape their responses to essay questions instead of writing them. Teachers will be surprised at the improvement in both the achievement and motivation of their students when these simple adaptations are made.

Four factors are important in constructing tests for mainstreamed students. These are test appearance, test format, test length and variety, and test readability.

Test Appearance

1. Copies should be distinct, clean and clear. Students require clear, distinct letters, especially those students with reading or visual disabilities. Some students are "purple blind"; that is, they cannot read pages that are run off on a ditto machine.

2. Ample margins and spacing

   A. 1½" border at top and bottom

   B. 1" border on each side

   C. minimum of two spaces between questions

3. Multiple choice alternatives should be placed vertically, i.e.:

   ORIGINAL

   What is the most effective agent of erosion?

   A) waves and currents B) glaciers C) percolating groundwater D) runoff

   REVISED

   What is the most effective agent of erosion?

   A. waves and currents

   B. glaciers

   C. percolating groundwater

   D. runoff

4. PROOFREAD - Teachers expect students to hand in papers that are proofread for errors. Students should receive the same. Tests containing errors in spelling, etc., make the task of the mainstreamed student much more difficult.

Test Format

1. Captilize and underline words such as ALWAYS, NEVER, and NOT.

2. Alternatives to multiple-choice answers should be brief.

3. Avoid negatively stated questions, especially in True-Flase.

4. No more than ten items should be included on matching lists.

5. Provide short-answer alternatives if you want them spelled correctly.

6. Avoid tricky items - they invalidate your test and increase test anxiety.

7. For students who have difficulty dealing with abstractions or organizing concepts, adapt the test-taking procedure by emphasizing learning by rote (facts in orderly presentation), testing factual information and avoiding essay exams.

Test Length and Variety

1. Allow plenty of time if you wish your test to be valid. The teacher may ask a colleague to take the test. The colleague's time is tripled to get an estimate of the proper time limit of the test. However, reading

disabled students may require more time.

2. Some students may require the test to be read aloud.

3. Use at least three question formats on a major unit test.

Test Readability

1. Eliminate unnecessary words, especially in multiple choice.

2. Use synonyms when possible.

3. Use shorter sentences.

4. Keep the vocabulary terms that the students should know, but make sure that they can read them on sight.

The following pages are a sample of a test for ninth grade Earth Science in which the readability has been lowered and the format changed slightly. Notice that vocabulary words and terms are left intact (the test is not "watered down").

ORIGINAL TEST

A. Understanding Ideas

Circle the letter in front of the best answer or fill in the blanks.

1. Which two rock classes form under similar conditions?

a. intrusive igneous and metamorphic
b. extrusive igneous and metamorphic
c. sedimentary and intrusive igneous
d. sedimentary and metamorphic

2. Name two factors that determine which type of metamorphic rock forms. _____

_____

3. What are rocks that contain alternate igneous and metamorphic layers called?

a. sedimentary
b. migmatite
c. foliated
d. dynamic

4. What is the most important source of heat for the formation of metamorphic rock?

a. heat from the sun
b. friction
c. decay of radioactive elements
d. pressure of overlying rocks

5. What two sources of pressure are associated with metamorphism? _____

_____

6. At great depths, unequal pressure is the most important factor in what type of metamorphic change?

a. metasomatism
b. pressure alone
c. recrystallization
d. intensification

7. Upon what does metamorphic rank primarily depend?

a. heat alone
b. pressure alone
c. heat and pressure
d. kind of rock involved

8. Where does metamorphism of the highest rank take place?

a. between sedimentary rock layers
b. at the bottom of an intruding magma
c. near the center of mountain building
d. along earthquake fault lines

9. Under what conditions are minerals which occur only in metamorphic rock formed?

a. fluids at high temperatures causing exchange of ions
b. high pressure causing foliation
c. heat causing enlargement of crystals
d. earthquakes

10. Which process is not associated with metamorphism?

a. formation of new minerals
b. recrystallization
c. foliation
d. fusion

ADAPTED TEST

Name _____ Date _____

Chapter 7 Metamorphic Rocks

A. Understanding Ideas

Circle the letter in front of the best answer or fill in the blanks.

1. What kinds of rocks are made in the same environments?

   a. metamorphic and instrusive igneous
   b. metamorphic and extrusive igneous
   c. sedimentary and intrusive igneous
   d. sedimentary and metamorphic

2. Name two things that determine the kind of metamorphic rock that forms.

   _____

   _____

3. What rocks have layers of igneous and metamorphic rock?

   a. sedimentary
   b. migmatite
   c. foliated
   d. dynamic

4. The most important source of heat for making metamorphic rocks:

   a. heat from the sun
   b. friction
   c. radioactive decay
   d. pressure

5. Name two things that cause pressure on rocks: _____

   _____

6. Unequal pressure on rocks causes:

   a. metasomatism
   b. foliation
   c. recrystallization
   d. intensification

7. Metamorphic rank depends on:

   a. heat only
   b. pressure only
   c. heat and pressure
   d. the kind of rock

More examples of test questions with lowered readabilities are listed below. Notice that the original content of the test question is maintained.

1. ORIGINAL

   Compare and contrast the personal attributes and characteristics of Huck Finn and Tom Sawyer.

   REVISED

   How are Tom Sawyer and Huck Finn alike? How are they different?

2. ORIGINAL

   Describe and discuss the probable effects of wage and price controls during periods of inflation.

   REVISED

   What might happen if wage and price controls were used during inflation?

3. ORIGINAL

   (T-F) Profitable construction materials originate in sedimentary rock.

   REVISED

   (T-F) Good building materials come from sedimentary rock.

4. ORIGINAL

   (T-F) According to the terms of the Treaty of Paris of 1783 both Britain and the United States agreed to allow the collection of lawful debts owed to creditors of either country

   REVISED

   (T-F) The Treaty of Paris said that both Britain and the U.S. could collect debts from each other.

5. ORIGINAL

Describe the rational behind the southern states making good their threat of disunion in 1860.

REVISED

Why did the southern states decide to leave the union in 1860?

6. ORIGINAL

The atmospheric condition in which air currents circulate at extremely high velocities in a limited area is called a _____.

REVISED

What do you call a very fast wind that is moving in a small circle?

7. ORIGINAL

Geysers are produced by what underground conditions?

REVISED

What causes geysers?

8. ORIGINAL

Crystal Thompson needs insurance for her personal belongings, but not for her residence, since she lives in an apartment. If her annual insurance premium is $63.00, what amount will she have paid in three years?

REVISED

Crystal Thompson lives in an apartment and needs to insure her belongings. The insurance premium costs $63.00 a year (anually). How much will she pay in three years?

9. ORIGINAL

What ingredients are placed in soap to give it the desired characteristics?

REVISED

What is soap made of?

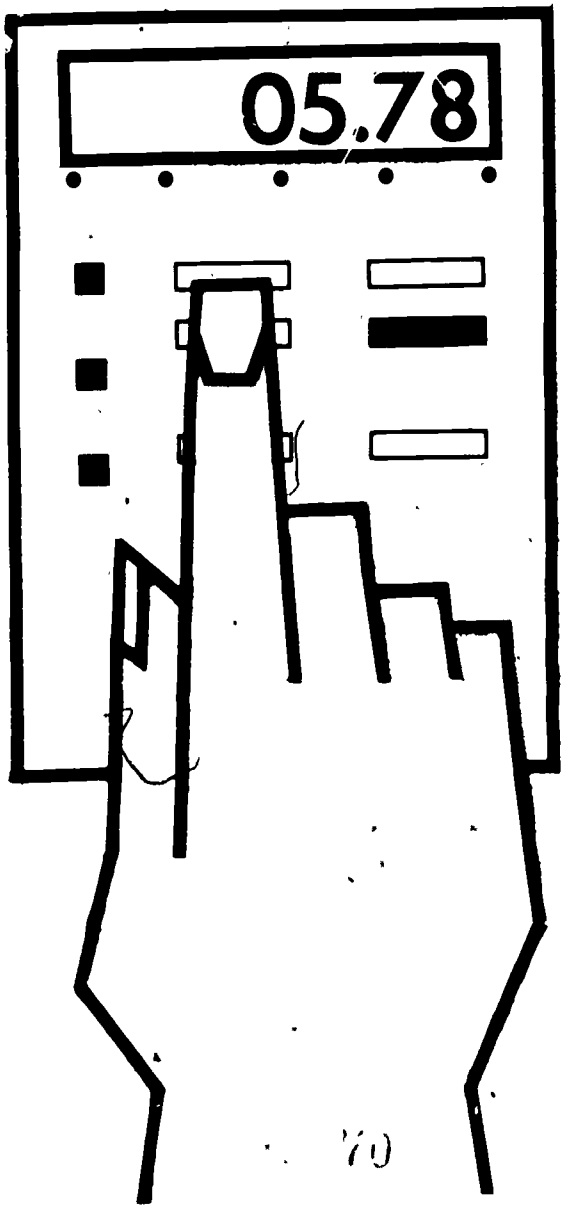
10. ORIGINAL

List four environmental requirements for the growth of bacteria.

REVISED

List four things bacteria need to grow.

Compensatory Techniques



COMPENSATORY INSTRUCTION

Remember that compensatory instruction is a change the teacher makes to assist a student in getting around (compensating for) a particular learning problem. Some students may be able to comprehend the subject matter, but a lack of certain basic skills prevents them from dealing with it. A technique must be found to help him/her bypass the handicap that stands in the way of learning the material. A person with a broken foot can walk with the aid of crutches; a student who cannot remember the multiplication facts can perform arithmetic operations by using a technique called finger multiplication (p. 65), or by using a calculator. Once a teacher provides a student with a compensatory technique or material, the student can function independently in the regular classroom.

This section presents a number of compensatory techniques and materials that have been successfully used to enable the mainstreamed student to succeed in the regular classroom.

Compensatory Techniques and Materials

Language Arts

The first thing a regular classroom teacher may notice about the mainstreamed student with learning problems is pronounced difficulties in reading and written expression.

In elementary school, the emphasis is on teaching the student "how to" read, write and spell correctly. In secondary school, mastery of these skills is largely assumed since they are needed as tools to learn in the content areas. For the student who has not learned "how to" adequately, compensatory techniques will be needed to assimilate the content being taught while ongoing remedial instruction continues to focus on the "how to" (see Remedial Instruction Section).

Many of the adaptive techniques presented in the previous section are compensatory in nature when being used by a student. Adaptations made by the teacher become compensatory tools for the student, such as relying on a tape recorded version of a textbook to learn rather than reading the book verbatim. Some techniques are quite simple. The student who has difficulty keeping his place while reading may be encouraged to place a card under the line of type. Another student may need to subvocalize while reading to aid in comprehension and retention.

Word Bank

Have the student utilize a spiral notebook as a word bank or as a personal dictionary. This compensatory tool allows the student to have a ready reference to vocabulary words and terms frequently encountered in the classroom. Any time the student encounters an unfamiliar word in the text, it is entered in the word bank along with its definition.

As an example, a student whose reading level was quite low worked with an adaptive curriculum from his science textbook. He was required to be able to define and spell the specialized

vocabulary in each chapter. To locate the words deemed important by the teacher, he used a color coded textbook. He simply had to find all the words outlined in green and record them in his word bank along with their definitions (outlined in pink).

Pages in the word bank can be set up by the alphabet or by content areas. The latter may be more appropriate, as each content area may have many technical terms used for that particular subject as well as many common terms which take on specialized meanings in the context of that subject. On page 61 are some examples of common words which are used with new meanings in specialized content areas. All were taken from secondary school textbooks.

Carbon Copy Notes

Have a student in the classroom make a carbon copy of their notes taken in class. This will provide a student having difficulties with note taking the opportunity to compare their notes with those of a peer. A special type of carbon paper that is not messy and is specially designed for handwritten notes is now available.

Spelling Aids

Many times mainstreamed students are very poor spellers. Teachers may allow students to compensate for poor spelling in a variety of ways. Use of a word bank as a reference is a very practical idea. Of course, students using color coded textbooks can quickly locate those words they are expected to spell in

SOCIAL STUDIES - SOME GENERAL WORDS USED WITH SPECIAL MEANING

thriving	settlements	mistress	oppression
struggle	enslaved	conqured	empire
militarists	philosphers	tactics	barriers
expansion	tyranny	democracy	clash
domesticated	genius	geographical	interference
compelled	succession	preservation	dominions

SCIENCE - SOME GENERAL WORDS USED WITH SPECIAL MEANING

compressed	capacity	misture	agents
compound	filament	attraction	equivalent
applications	repulsion	fluorescent	emulsion
immerse	transparent	nonmetallic	filtration
condensation	parallel	friction	saturated
humidity	resistance	compensate	dehydrated

MATHEMATICS - SOME GENERAL WORDS USED WITH SPECIAL MEANING

rational	inverse	inconsistent	eliminated
solution	approximation	intercept	determine
coincide	difference	variation	circumference
graphically	connecting	velocity	computing
infinite	inequality	multiple	parenthesis
projection	approximately	conceptual	probability

BUSINESS, INDUSTRIAL ARTS, AND VOCATIONAL TRAINING - SOME GENERAL WORDS USED WITH SPECIAL MEANING

collective	independent	bargaining	authorized
reputable	comprehensive	residential	contending
executing	accumulated	miscellaneous	verification
analysis	commercial	installment	automated
excessive	connecting	resurfacing	lubrication
automatic	arrangements	diagram	processing

HOME ECONOMICS - SOME GENERAL WORDS USED WITH SPECIAL MEANING

parental	suggestion	desirable	standards
encouragement	approval	fashionable	communicable
requirements	contagious	contaminated	utilities.
simplifies	budgeting	household	livable
refreshments	centerpiece	harmonize	vegetables
accessories	essential	appliances	guarantee

LITERATURE - SOME WORDS USED WITH SPECIAL MEANING AND SOME UNCOMMON WORDS

miserable	swaggered	shrieked	vicious
renegade	solemnly	horrible	ironically
bridled	audience	colossal	girth
eddied	dulling	magpies	realization
prudence	muttered	sufficed	sodden
retrieved	scamp	thrashed	decadent

content areas.

"The Perfect Speller"[6] can be an invaluable addition to your classroom. Words in the book are listed in black ink as common misspellings, then the correct spelling is given in red ink. For example, there are eleven different misspellings for "broccoli". If a student can even get close, the correct spelling can be found.

By using "The Perfect Speller", the student really can look up the word.

The "Instant Spelling Dictionary"[7] used by most secretaries can also be a tremendous aid to the poor spellers, and it is pocket-sized.

A spelling system developed by our teachers diffused much of the hostility often generated by a paper full of misspelled words and returned with a lot of red ink. The teacher simply allowed the student to write "sp" above any word s/he knew was misspelled.

If the student wasn't sure, s/he could write a "?" above the word. A "?" means "I think it could be right but I'm not sure". An "!" above the word means "I tried to find this word and it wasn't there - maybe God didn't make it but it seems to fit".

By using this marking system, the teacher was quickly able to determine which words the student needed to work on, and also taught the student to monitor his/her own writing. Through the use of this system, most of the hassle and hostility commonly felt by both the student and teacher was effectively diffused.

Tape Recording Lectures

Tape recording of textbooks was mentioned as an adaptive technique in the previous section. By using a tape recorder to record class lectures, the student can compensate for his/her inadequate note-taking skills. The auditory learner may find tape recording of lectures particularly helpful.

Use of a Typewriter

For a student having difficulty writing legibly, allow the use of a typewriter for written assignments. The typewriter is another means of motivation and practice when students are answering questions or learning definitions and terms.

Books like "Type It"[8] - a linguistically-oriented typing program - teach reading skills while teaching how to type. This particular book was written by a learning disabilities teacher and is an excellent resource for mainstreamed students.

Organizational Notebook

Many students, especially learning disabled students, frequently have difficulty with tasks involving organization of time and materials. Success for these students may be facilitated by teaching such skills as notebook organization. Both the teacher and student may then have a system to assure that such activities as homework assignments have been copied accurately and returned at the proper time.

The materials needed for notebook organization are as follows:

1. One (1) 3-ring binder to hold all other materials.

2. One (1) paper calendar - attach the current month on the inside cover of the notebook for "assignment due" dates.

3. One (1) plastic pouch for pencils, erasers, pens, cards, etc. (word bank vocabulary)

4. Two (2) pencils or pens, one (1) portfolio (folder with pockets) per class to hold assignments, study guides, etc.

5. One (1) spiral notebook (or loose-leaf paper) per class.

6. One (1) copy of SQ3R study technique taped to inside back cover.

The organizational notebook minimizes the problem of students who are afflicted with a bad case of "Disorganizational Syndrome". Almost everything the student needs, with the exception of textbooks is contained in one package.

The organizational notebook has proven effective for both elementary and secondary students. A homework assignment sheet is maintained in each folder for each class. Points may be awarded at first to reinforce usage and bringing the notebook to class. (Example: Bringing notebook every day is worth six points on six-weeks exam.)

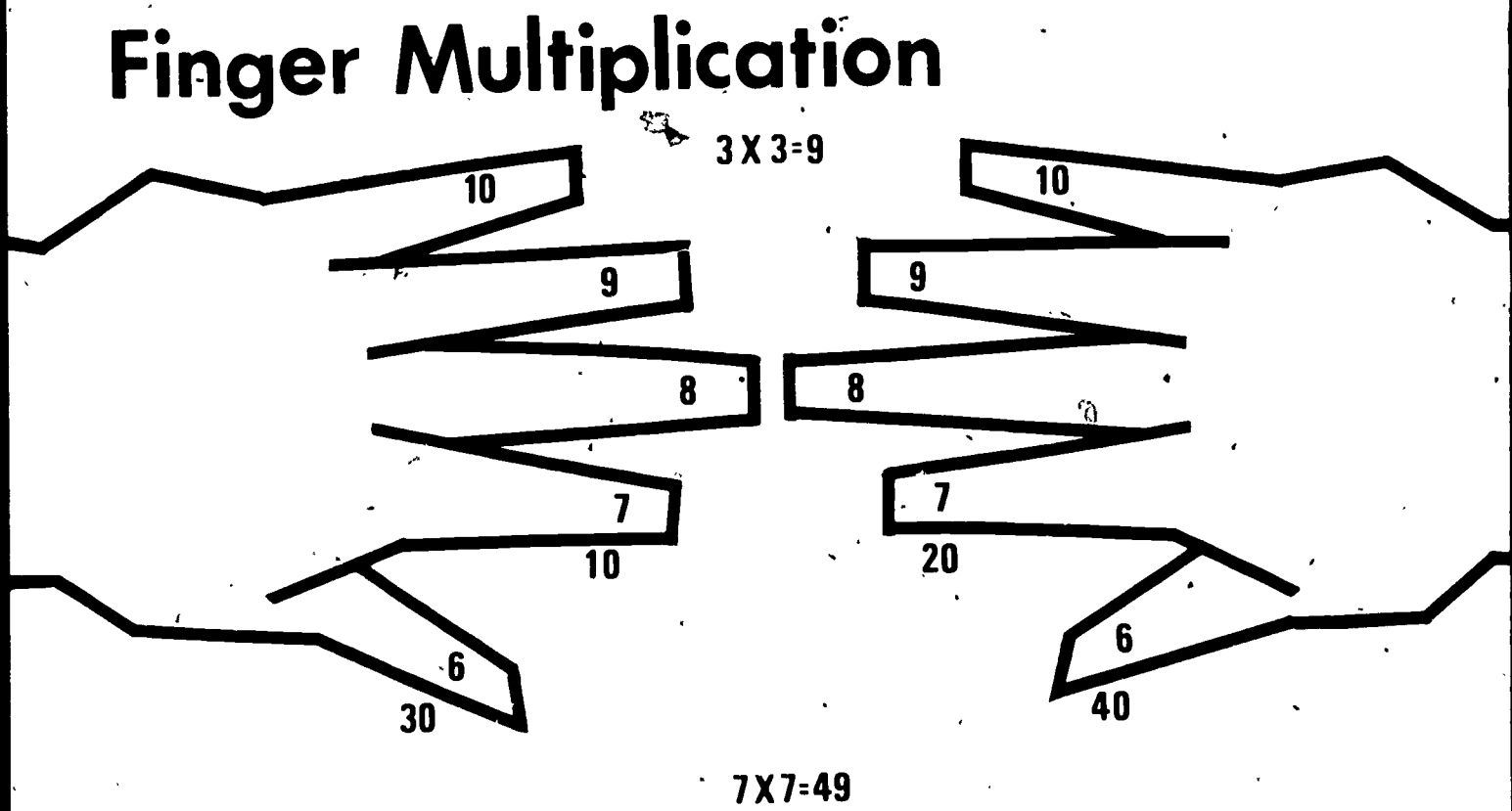
Mathematics

The mainstreamed student may understand the concept behind a particular arithmetic problem but may be unable to arrive at the answer because of an inability to remember basic math facts. The following compensatory techniques are ways of helping the students compute math facts. Many students will eventually memorize math facts as they work with these "helping tools".

Finger Multiplication

Finger Multiplication is a technique for use by a student who knows the ones through fives in multiplication but has problems with the sixes through the nines. It is a compensatory technique - one used to by-pass a problem area.

This technique is very concrete. Have the student hold hands up palms out. Number fingers starting with the thumb as six, index finger as seven and so on to ten. Do this on both hands. Each finger now has an assigned number. (See example below.)



To multiply six times eight, the student places the appropriate fingers of one hand to the appropriate fingers of the other hand forming a bridge, i.e. the thumb (six) of one hand to the middle finger (eight) of the other hand. The fingers below and including the bridge are tens. The ones above the bridge are ones.

Now count all fingers below the bridge and the two making the bridge as ten's (i.e. 10, 20, 30, 40) then multiply the ones on one hand times (fingers above the bridge) the ones on the other hand (i.e. 2 times 4 = 8). Now simply add the two together to get your answer. Six times eight equals forty plus eight.

In actual practice, the student would keep his hands on his desk or in his lap. (Note: Keep thumbs towards tummy.) This technique is not recommended for elementary children. Learning disabled students at the secondary level have had very little trouble in learning this technique.

Pringles Can Multiplication

Pringles can multiplication is a technique that can be both compensatory and remedial, depending on its use.

Students tape the pattern (see page 67) on the outside of a pringles type can. Cover the pattern with contact paper and then cut out and tape on the sleeve.

Using the pringles can as a compensatory tool, a student who doesn't remember what seven times nine is simply turns the sleeve to match up seven and nine. The

answer will show up in the slot provided.

As a remedial tool the student may need to work on his seven's so he starts with seven times one, looks at the answer, then goes on to seven times two and so on. Eventually, the student can be weaned away from this technique as the constant reinforcement of seeing the correct responses will probably help him remember.

This technique is especially recommended for high elementary and junior high level students.

Pringles Can Multiplication Table - Assembly Instructions

1. Mimeograph the two sheets off onto construction paper. (Cut out the squares as indicated.) The pattern can be found in the Appendix.
2. Laminate the construction paper sheets.
3. Attach the Multiplication Table sheet to the pringles can, so that it is stationary.
4. Attach the second sheet (with missing squares) over the multiplication tables so that the vertical row of numbers on both sheets are visible.
5. Be sure the top sheet will roll easily.

Pringles Can Addition

Pringles Can Addition is used in the same way as Pringles Can Multiplication, and is assembled in exactly the same manner. Patterns for both are contained herein.

Multiplication Table

As a compensatory aid, the student may be allowed to carry a copy of the multiplication tables (shown on the next page) in his notebook to refer to when unsure

of an answer.

Smaller copies may be carried in wallets and purses.

×	0	1	2	3	4	5	6	7	8	9
0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9
2	0	2	4	6	8	10	12	14	16	18
3	0	3	6	9	12	15	18	21	24	27
4	0	4	8	12	16	20	24	28	32	36
5	0	5	10	15	20	25	30	35	40	45
6	0	6	12	18	24	30	36	42	48	54
7	0	7	14	21	28	35	42	49	56	63
8	0	8	16	24	32	40	48	56	64	72
9	0	9	18	27	36	45	54	63	72	81

Use of Calculators

The question is not whether you should use a calculator in your classroom, but how you should use it? It can help you do a better job of teaching basic mathematics. The calculator can also be valuable for students as a compensatory tool.

Suggested Uses

General:

1. Student uses to check own answers.
2. Let a team of students with one calculator check papers.

3. As a motivator, if student does five problems on their own, then do five problems with the calculator.

Counting and Numeration Skills:

1. The nature of the counting process is made obvious by the machine. One can be added to each number.

2. A calculator makes it possible to start counting at any number. By two's, three's, ten's, etc.

3. Oral practice in naming numerals and number words.

Computation Skills:

1. Many games can be designed to help students remember the basic computation facts.

2. Give problems with real applications, and allow students to develop their own methods of solution. The objective is the development of the method, not the method itself.

3. Have students work problems, check their answers with calculator and find the errors in their own work.

Measurement and Geometry:

1. Calculators can make measurement experiences more real as students compute perimeters, areas, and volumes.

2. In geometry, the calculator is an excellent device for helping the student try different methods for discovering a pattern and then extending that pattern.

Problem Solving:

1. Use to discover and expand science and social studies facts, such as dates, population figures, and other statistics.

2. The calculator makes it possible for students to work with both extremely large and small numbers and with data that would be very difficult for them with paper and pencil.

Alignment Suggestions

If a student is able to compute math problems, but the final answer is incorrect, the student may have difficulty keeping columns straight. The following are suggestions in helping correct this problem:

1. Have the student turn notebook paper sideways, or
2. Have the student use one-half (½) inch square graph paper.

If the student has difficulty spacing letters correctly, this same procedure may be useful.

Vocabulary

Keyword Mneumónic Method

The Keyword Mneumonic Method has been proven to be an excellent tool for students who have difficulty learning new vocabulary words.

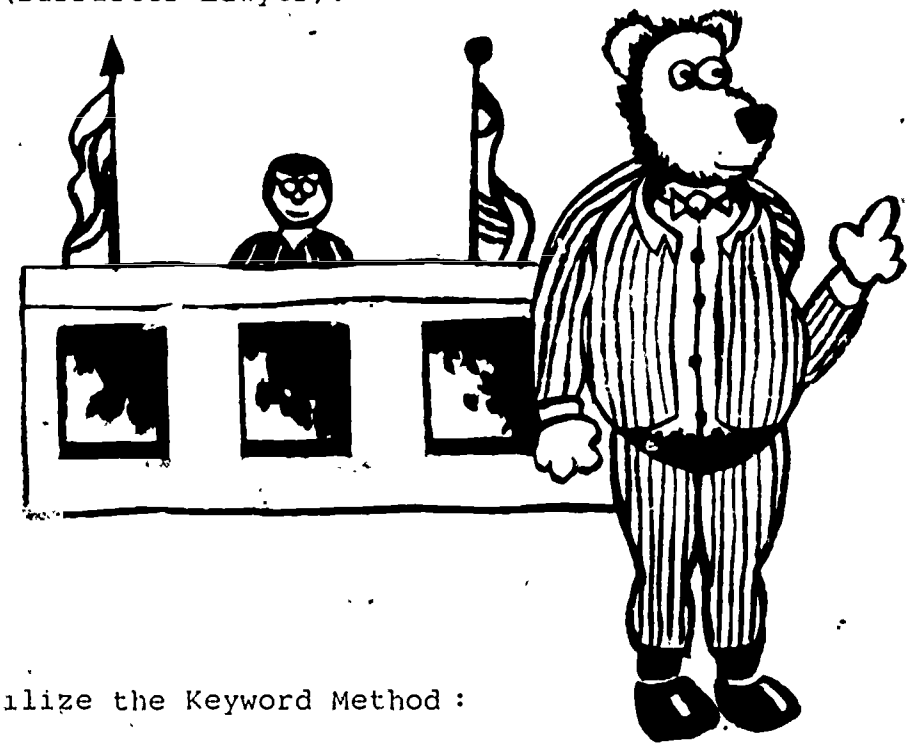
The Keyword Method is based on the principals of replacing a difficult association (between a new vocabulary word and its definition) with two easier associations. This is made possible by the use of a "Keyword", a common word that sounds like part or all of the vocabulary word. Here is an example:

Vocabulary Word	Keyword	Definition
Barrister	Bear	Lawyer
	acoustic link (sound-alike)	imagery link (picture)

The first association is a sound-alike acoustic link between the vocabulary word and the keyword. The link is based on the sound the words have in common. The second

link is an imagery link. The student makes a mental picture with the keyword and the definition interacting.

For example: The student might picture a bear in a suit acting like a lawyer. Later, when the student hear or sees the vocabulary word, s/he will remember the keyword that sounds like the vocabulary word (Barrister-Bear). When they remember the picture with the keyword (Bear-Lawyer), they will then link together the word pairs and recall the definitions of the vocabulary word (Barrister-Lawyer).



To utilize the Keyword Method:

1. Select a list of vocabulary words and their definitions (preferably synonyms). Words with concrete visualizable meaning work best. A good list length is fifteen words.

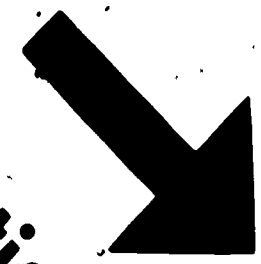
2. Choose a keyword for each vocabulary word. A keyword should sound like as much of the vocabulary word as possible. Ideally it will sound like the first syllable. It should be easy to form a memorable image connecting the keyword and the definition. Concrete nouns make good keywords since they are easy to picture.

3. Teach your students the Keyword Method. You might call the keyword a "linking word" (like a link in a chain). Use several examples. Tell them the keywords to use and the images to see.

4. Have the students use the Keyword Method to study the vocabulary list. Tell and show them a vocabulary word, its keyword, and the definition. Be sure they clearly see a mental picture before you move on to the next word.

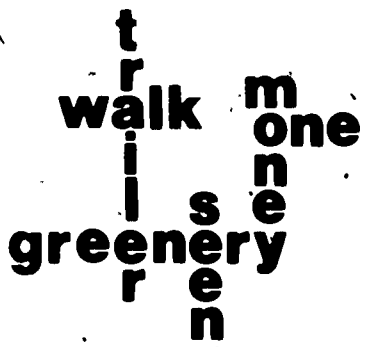
5. For your tests over the list, present each vocabulary word and ask the students to recall both the keyword and the definition.

Remedial Instruction

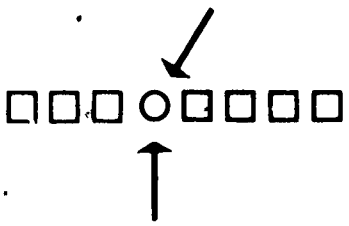


1 2 3 4 5 6 ...

$$2\overline{)6}\quad 3,\ 6,\ 0$$



$$\begin{array}{r} 100 \\ +\ \ 9 \\ \hline 109 \end{array}$$



REMEDIAL INSTRUCTION

All classroom teachers have been involved to some degree in remedial teachi although this form of instruction is generally regarded as being the domain of the special teacher. This concept is slowly changing.. Regular class teachers are finding that remedial instruction is necessary and possible in classes where students learn on different levels and with varying styles.

Remedial instruction is the re-teaching of concepts or skills using a different type of approach, material, or procedure. The standard curriculum for a particular student may have to be modified. Supplementary materials with low readability levels may be used in content areas to cover basic subject matter or specialized commercial materials may be needed to drill the student in specific skills. In addition to commercial materials, remedial instruction often utilizes teacher made activities and learning materials, as well as newspapers, magazines, menus, checkbooks, application forms, itemized receipts, etc.

Successful remedial teaching requires the teacher to recognize that all students in a class are not working at the same level and that differential teaching will be necessary

to insure that significant learning is taking place. This is of significance since mildly handicapped learners are mainstreamed in most regular content areas.

All this clearly implies that the regular class teacher must be knowledgeable of his/her mainstreamed students' ability levels, achievement levels, area of interest, and learning style (auditory learner, visual learner, etc.). The teacher must have a working knowledge of all available materials, including the readability levels and the approach or method of conveying skills or content.

Remedial instruction relies upon individualized teaching, which in turn relies upon the students' strengths and weaknesses as a basis for instruction. Emphasis is not placed on doing the same thing in the same way as everybody else. Rather, the teacher uses all sources of information to find out (1) what the student needs to learn, and (2) how to teach it to him/her.

If as a classroom teacher reading this, you are feeling somewhat overwhelmed, you should not assume that the regular class teacher must shoulder all these responsibilities alone. Planning a program for the mainstreamed student is a cooperative effort which begins at the placement team meeting when the IEP is drafted. The IEP is a total program document, and should include objectives and approaches to be used for the mainstreamed student in all his/her classes. Close communication between the special teacher and the regular teacher should take place during the placement meeting as well as throughout the year. The special teacher should be available

to assist the regular teacher in selecting and using alterna-. tive materials and in helping to determine if the objectives set for the student are realistic and being met. The school psychologist or psychometrist should be in attendance at the placement meeting to explain the test results and their implications for instruction. Personnel from the state special education agencies may be available to offer prescriptive assistance. Remedial reading and math teachers may also be consulted for assistance. Now that the "least restrictive environment" is a reality in the public schools, coordination between all schools and school support personnel is essential.

The following tips for content area teachers to use with remedial students are a logical extension of the preceding discussion:

1. Know the reading ability and level of your students.
2. Determine readability levels of printed materials that you use.
3. Provide a purpose and direction for each reading assignment.
4. Provide structure, such as outlines, motivation questions, etc., for written assignments.
5. Reinforce essential and or technical vocabulary by repetition. Remember that vocabulary is best learned by concrete illustrations and actual experience.
6. Provide alternative assignments that do not require the use of a textbook.
7. Make use of audiovisual aids, filmstrips, records and supplemental materials as alternatives to the standard textbook.
8. Utilize informal or criterion-based tests to assess students strengths and weaknesses.
9. Teach the concepts behind math operations.. Remedial teaching in math should involve the what, how, and why behind the numerical operations.

10. Provide concrete experiences using physical objects and then relate them to math operations.

11. Teach the English language equivalents of mathematical symbols. (Word/symbol association.)

12. Because most secondary textbooks' content and format tend to encourage rote memorization and repetition of facts, provide for structured discussion after all reading assignments (higher levels of comprehension cannot be expressed in writing if they are not perceived from the source).

Remedial Techniques and Materials

See-Thru Study Sheets

Instructional Usages: See-thru study sheets may be used as a technique to re-teach concepts that the student has been exposed to previously. This technique provides immediate feedback, takes a minimum of time to implement and can easily be done by students. It is also extremely inexpensive.

The technique is based on the fact that the red college theme binder (acetate type) effectively screens-out pink and yellow water-based highlighter pens. See-thru study sheets have much more potential for review or re-teaching of content area material and make excellent study guides.

Procedure: On standard size paper or index cards, problems or questions are written using a dark magic marker. A pink or yellow water base marker is used for writing the answer.

When cards are under the plastic theme cover, only the problem or question is visible. The answer appears when the card is pulled out of the theme cover.

Students can easily use this to quiz themselves on any type of information, having immediate feedback.

Paragraph Study Sheet

The paragraph study sheet is an excellent way to check for comprehension in reading and provides the remedial student with structure in written assignments. Reading for main ideas is one of the most important skills a student must be able to master, and if the student can relate the essential details listed on the paragraph study sheet, it shows that the student is comprehending what s/he is reading (at least at the literal level). Also, the sheet provides a framework from which to construct a written assignment. The paragraph study sheet can be used as a self-administered quick check device to assure the student that the reading passage has been understood. Another way in which the paragraph study sheet can be used is for creative writing assignments. Many mainstreamed students have difficulty coming up with their own ideas, and the thought of an unstructured writing assignment might send some of them into a near panic. To alleviate this problem, the teacher can provide a number of index cards for each detail. The student can put together the main ideas for a story by putting together the statements from the index cards s/he selects.

In addition to the see-thru study sheet and the paragraph study sheet, the following activities and ideas may also be useful in helping to remediate students with learning problems.

PARAGRAPH STUDY SHEET

Topic Sentence: _____

_____

_____

Details -

Who? _____

_____

_____

What? _____

_____

_____

Where? _____

_____

_____

When? _____

_____

_____

Why? _____

_____

_____

How? _____

_____

_____

Color Computer

The Color Computer comes in a kit which contains a color coded answer key card and pre-punched question cards (four different hole patterns with forty-two programming possibilities). The instructional use of this item is that it gives immediate feedback for learners. It is easily programmed for math drills, vocabulary drills, science terms, all types of multiple choice, review for driver's license test and any content area review.

The directions for assembly and the procedure for use of the Color Computer are as follows:

Directions:

1. Position and paste down answer key on a large piece of cardboard or file folder.
2. Choose any question card and place it on top of the answer card to determine the programming colors. (A color from the answer card will show through each hole.)
3. Select a magic marker of any color that appears through a hole on the card.
4. Write the question on the card, write the correct answer beside the hole showing that color.
5. Beside the other holes, place alternative, incorrect answers.
6. Cards may be programmed on both sides.

Procedure:

1. Learner takes and reads one programmed question card at a time.
2. He indicates his choice of answer by pointing to the hole on the card, verbalizing his choice, or by recording the answer on a piece of paper.
3. If an incorrect answer was chosen, the correction may be made by the learner either mentally or in writing.

The Color Computer Kit sells for $2.95 for one set of colored dots, answer cards, and directions for programming. It may be ordered from: I.E.S.S., Inc., Box 432, 1365 S. Park Drive, Kernersville, North Carolina 27284.

Beat the Clock

Beat the Clock may be used for multiplication and for parts of speech. The directions for construction and procedures are as follows for each use.

Multiplication - Directions for Construction

1. In a file folder, mark off a grid with 40 spaces (8 across, 5 down).
2. In the first column, print the letters C-L-O-C-K.
3. Place the following numbers in the remainder of the spaces:

   2, 3, 4, 5, 6, 7, 8,
   9, 10, 12, 14, 15, 16, 18,
   20, 21, 24, 25, 27, 28, 30,
   32, 35, 36, 40, 42, 45, 48,
   49, 54, 56, 63, 64, 72, 81

4. You will need 177 small-size (2"x3") task cards. Write the following numbers on the task cards.

1 on 16 cards	6 on 16 cards
2 on 20 cards	7 on 22 cards
3 on 20 cards	8 on 20 cards
4 on 20 cards	9 on 18 cards
5 on 20 cards	

5. Write the letters C-L-O-C-K on 5 cards. (One letter on each card).
6. Shuffle the cards, use beans or paper clips as markers.
7. Now draw 2 cards. Multiply the numbers and cover the answer with a marker. The object is to get all the numbers covered before all the letters are covered.

Parts of Speech - Directions for Construction

1. In a file folder, mark off the grid with 40 spaces (8 across, 5 down).

2. In the first column, print the letters C-L-O-C-K.

3. Place the following parts of speech in the remaining spaces, in any random order:

noun	adverb
verb	preposition
adjective	

4. You will need about 100 small size (2"x3") task cards. Write 16 words of each, nouns, verbs, adjectives, adverbs, and prepositions on the task cards.

5. Write the letters C-L-O-C-K on five cards. (One letter on each card.)

6. Shuffle the cards, using beans or paper clips as markers.

7. Draw a card and decide whether it is a noun, verb adjective, adverb or preposition. Cover the correct part of speech with a marker. The object is to get all the parts of speech covered before any letters are covered.

Data Man

Data Man is a hand-held, programmed computer which students can play a variety of math games, either individually or in groups. The teacher can program in specific problems to be computed by the student, or a number of pre-programmed number games may be played. Data Man is a motivating way for students to drill their math facts and work with numbers in general.

Data Man can be bought at most large variety stores or you may order one from: Texas Instruments, Inc., Dallas, Texas, at a cost of $24.00 each.

Using Money

1. Tell the students an amount of money under $5.00. You will probably want to start with small amounts.

2. The students place coins or markers to illustrate the amount. They should have more of each denomination than they need.

3. In order to keep their markers, the studen must indicate the exact amount in the least number of coins possible. If not, the teacher takes the markers. (i.e. - if the amount is 33¢ and the student uses 3 dimes and 3 pennies, you get the markers since 30¢ should be changed to 25¢ + 5¢.)

4. This is done above the line. Now, give another amount and follow the same procedure, only this time the coins are placed below the line.

   Example:

	$1	50¢	25¢	10¢	5¢	1¢
33¢			●		●	●●●
48¢			●	●●		●●●

5. Each student now has two groups of coins. They simply put the coins together and change when they have too many - 6 pennies - take off 5 pennies and put down 1 nickel, etc.

   Example:

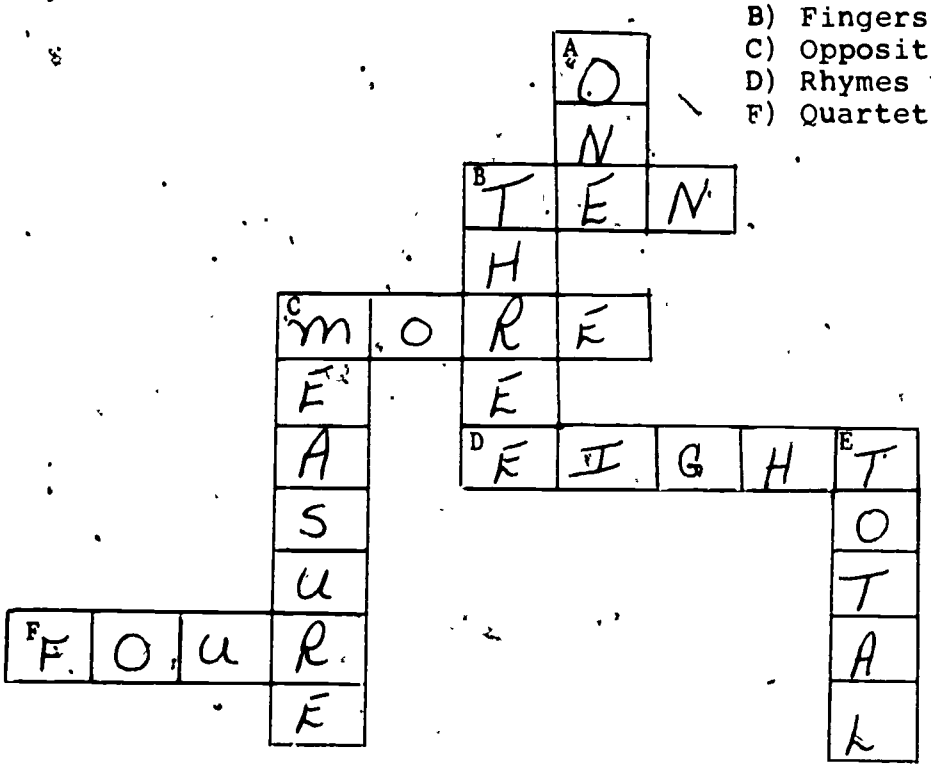
	$1	50¢	25¢	10¢	5¢	1¢
81¢		●	●		●	●

The game may be varied by having the students make change in the fewest number of coins. This activity is highly recommended for elementary and intermediate students, or any student who has difficulty making change.

Crossword Math

Have teams of two or three students who have difficulty with particular math skills or concepts make simple cross-math puzzles in an area where remedial help is needed, and at the same time s/he can complete the puzzles of others.

Here is an example of a simple cross-math puzzle on numbers;



Down

A) 1
B) Trio
C) to find your own height and weight
E) numbers added up or the sum

Across

B) Fingers
C) Opposite of less
D) Rhymes with ATE
F) Quartet

Hold Your Place

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones	Decimal Point	Tenths	Hundredths	Thousandths	Ten Thousandths

When students learn the concept that numbers are place holders, the reading and use of these place holders will be more easily understood.

Reproduce this graph on the board or on mimeo and allow each child to place various numbers on the chart. Marks can also be placed in the spaces to demonstrate values.

Symbols

Place on the chalk ledge any or all of a set of cards containing the following symbols: +, -, x, ÷, /, =, (), >, <. Call upon pupils to do one of the following:

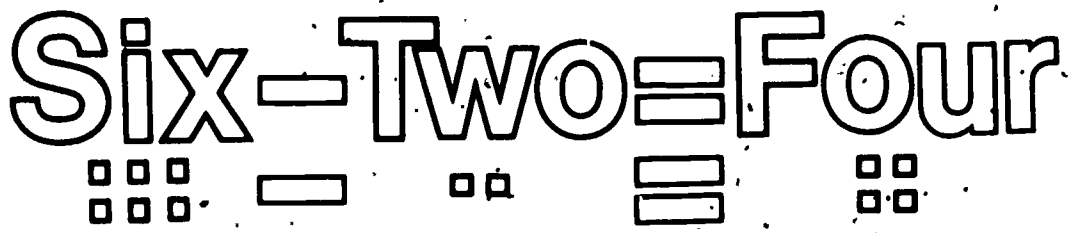
a. choose a card and give the name of the symbol and its meaning.

b. choose a card and give the name of the symbol and use it in an example.

c. play a game with two teams in which a member of Team A explains the use of a symbol and a member of Team B finds that symbol.

What a Deal

Use a deck of playing cards, with the face cards removed, to teach various arithmetic skills.



Using a deck of cards for two students, have them play five games of addition (one student doing the adding, the other checking). Each student turns over the top two cards and adds them. The game can also be used to provide help with multiplication, division, and subtraction.

What's Cooking

Have students collect menus from restaurants in their community. When a variety of menus have been collected, prepare "Dining Out Cards" that include a variety of situations. Here are two examples:

a. You and two of your friends want to go shopping and eat out rather than returning home. Each of you have $2.05 for meal expenses. Assuming that all of the restaurants are near enough to your shopping area, select one that would best serve your needs. What would be your meal? What is the total cost (don't forget tax)? How much do you have left?

b. You want to take your father/mother to the movies and dinner for his/her birthday. You have saved $10.75. The movie costs $2.00 for each ticket. From the menus available, select a dinner that you can afford.

Big, Bigger, Biggest

Have students make up problems such as the following:

WHICH IS MORE? Circle the right answer.

3 quarts or 7 pints	20 days or 3 weeks
2 feet or 25 inches	20 minutes or 995 seconds

The "Mean" Game

Since temperature, rainfall, snowfall, etc., are also reported in terms of the mean (for the month, the year, the area), it is important for youngsters to have some understanding of the meaning of this term.

As you know, the mean of a series of numbers is the "average" of those numbers, and is computed by adding all of the numbers and dividing by the numbers used.

Demonstrate the concept of mean or average by using this device. Use strips of tickets and present strips containing 15, 13, 12, 8 and 7 tickets. Work with pupils in removing some tickets from strips containing 15, 13, and 12 and attaching them to strips containing 8 and 7. Thus, five equivalent strips of 11 tickets each are formed. The mean or average is 11. Now illustrate this procedure on the blackboard: add 15, 13, 12, 8, and 7, and divide by the number of numbers (5); thus, 55 ÷ 5 = 11. Eleven is the mean or average. Have the students compute additional averages on paper as well as with a calculator.

Tape Worm

Have students collect cash register tapes from purchases at the supermarket and other stores. They are to be placed in a box. Students are to select a certain number of tapes and add

the cost of the items (mentally or with a hand calculator) to verify the totals on the tapes (addition of decimals).

Subtraction problems can be designed by writing the amount of money the purchaser may have given the clerk, and calculating the amount of money refunded to the purchaser.

Example: The cost for a list of items on one tape totalled $42.58: On the bottom of the tape the teacher (or student) writes the amount of money given the clerk; in this case, it is two twenty-dollar bills and one five-dollar bill. Question: How much does the clerk return to the purchaser?

Baseball Math

Give each student a baseball standings chart similar to the one pictured below.

AMERICAN LEAGUE

East Division

	W	L	Pct.	GB
New York	80	49		½
Baltimore	80	50		1
Boston	77	51		2½
Cleveland	72	55		6½
Milwaukee	72	59		8½
Detroit	68	61		12

West Division

	W	L	Pct.	GB
Oakland	85	45	.654	—
Texas	80	50	.615	5
Minnesota	77	54	.588	8½
Chicago	72	57	.558	12
Kansas City	70	60	.538	14½
California	61	70	.466	24½

Wednesday's Results

Cleveland 6, Milwaukee 2.
Boston 8, Detroit 5.
Baltimore 10, New York 4.
California 4-8, Texas 1-2.
Chicago 3, Minnesota 1.
Oakland 3, Kansas City 4.

Thursday's Games

Detroit (Ruhle 0-0) at Boston (Tiant 20-12), 6:30 p.m.
Baltimore (McNally 15-10) at New York (May 6-3), 7 p.m.
Oakland (Blue 15-13) at Kansas City (Briles 5-5), 7:30 p.m.
Only games scheduled.

Friday's Games

Detroit at Milwaukee, 7:30 p.m.
Cleveland at New York, 2, 5:30 p.m.
Baltimore at Boston, 7:30 p.m.
California at Minnesota, 7:30 p.m.
Oakland at Chicago, 8 p.m.
Kansas City at Texas, 8 p.m.

NATIONAL LEAGUE

East Division

	W	L	Pct.	GB
St. Louis	80	48	.527	—
Pittsburgh	79	49	.527	1/2
Philadelphia	77	50	.606	2
Montreal	71	56	.473	8
New York	67	62	.436	13
Chicago	62	66	.419	17½

West Division

	W	L	Pct.	GB
Los Angeles	90	44		—
Cincinnati	91	52		2½
Atlanta	83	60		11
Houston	76	74		17½
San Francisco	68	82		26
San Diego	65	96		30

Wednesday's Results

Atlanta 4, San Francisco 2.
Chicago 5, Philadelphia 2.
Pittsburgh 4, St. Louis 1.
Montreal 3-4, New York 2-0.
San Diego 6, Cincinnati 3.
Houston 3, Los Angeles 2, 10 innings.

Thursday's Games

Chicago (Hooton, 5-11) at Philadelphia (Ruthven 9-12), 6:35 p.m.
St. Louis (Curtis 9-13) at Pittsburgh (Kison 7-4), 6:36 p.m.
San Diego (Freisleben 9-12) at Los Angeles (Sutton 16-9), 9:30 p.m.
Cincinnati (Norman 11-12) at San Francisco (Caldwell 13-4), 9:30 p.m.
Only games scheduled.

Friday's Games

Philadelphia at Montreal, 7:05 p.m.
New York at Pittsburgh, 7:05 p.m.
Chicago at St. Louis, 7:30 p.m.
Atlanta at Houston, 7:35 p.m.
San Diego at Los Angeles, 9:30 p.m.
Cincinnati at San Francisco, 9:30 p.m.

Have each student:

a. Compute the percentage for each team in the American League East and National League West;

b. Place all American and National League teams in order based on the teams' won-lost records. Which team is first? last?

c. Arrange the teams in the American League West and National League East in alphabetical order based on teams over .500 and teams under .500.

d. Compute the total runs scored in American League teams on Wednesday; do the same for the National League. Which League scored more runs? How many more?

e. List the teams that will start Thursday's games after 6:00 p.m.; after 9:00 p.m. (Milwaukee time). How many teams are playing afternoon games?

f. Determine what pitchers for Thursday's games have the best records; the poorest records; no record. Identify each pitcher by name and by their winning percentage.

Make a Filmstrip

Have two or three special interest groups select a math area - decimals, fractions, multiplication, sets, etc. After they have selected their area, the students outline the basic categories involved. For example, among categories in the decimal area the students might list:

a. meaning of the word "decimal" and the purpose;

b. changing decimals to common fractions;

c. changing common fractions to decimals;

d. adding and subtracting decimal fractions;

e. division with decimal fractions;

f. multiplying decimal fractions;

g. percentages.

The group should determine the basic operating principle/concepts/content for each category and insure that all in the group understand these. Once this has been accomplished the teacher should encourage each group to make a filmstrip for each category. The filmstrip should be designed so that it will help other students learn the concepts, princples and content. Teachers can purchase filmstrip kits for use in the math center. These kits come with directions and suggestions for use.

Utilizing Peer Helpers

A peer helper is another student who can and will effectively communicate with the mainstreamed student. The peer helper can help by:

a. making certain s/he understands directions of assignments;

b. reading important directions and essential material to the mainstreamed student;

c. drilling the student orally on what s/he needs to know, i.e. multiplication tables, state capitals, parts of speech, etc;

d. summarizing orally important textbook passages for the mainstreamed student;

e. writing down answers to tests and assignments;

f. working together on joint assignments;

g. constructively criticizing work for the student and making suggestions for improvements;

h. in classes with laboratory settings (home economics, chemistry) lab partners can be a very effective way to assist the mainstreamed student.

Modularized Instruction

Many of the techniques, materials and strategies described

in this handbook are used in modularized instruction. Commercial materials may also be used. This type of instruction works well in both resource rooms and regular classrooms.

Teachers prepare instructional modules that guide students in the attainment of objectives for a given topic. Some classrooms depend totally on modular instruction, while others incorporate modules for special topics, remedial instruction, extra credit, etc. A module usually consists of the following components:

1. Directions for using the module (keep the readability as low as possible);
2. Pretest. If a student passes, s/he receives credit for the module;
3. Introduction;
4. Goals;
5. Specific behavioral objectives;
6. Two or three activities for each objective. Students choose the activity they prefer;
7. Post test;
8. Remedial work for students who do not perform well on the post test. An alternate form of the post test may be included;

Modular instruction teaches independence and self-reliance as well as the content area material. The focus is on mastery, learning and diversity. It is one type of modification that is beneficial to the entire class while adjusting for mainstreamed students.

Written Expression

Communication of a thought or idea is the purpose of all written material. Is this a difficult task? Myklebust suggests

this may be the highest level of communication and therefore, for many, the most difficult form of communication. We should bear this in mind when working with the learning disabled student.

Four areas to consider in written expression are:

I. Handwriting

A. Problems associated with handwriting:

1. speed
2. letter formation
3. erasures
4. mixture of print and cursive

B. Techniques and Materials:

1. use content areas to practice writing
2. use the typewriter for those with illegible handwriting
3. use music to relax the student, i.e. have the student write while listening to music
4. use job applications to stress the need for legible writing

II. Idea Formulation

A. Problems with:

1. organization
2. structure of topic
3. sequence of sentences
4. incomplete sentences
5. unrelated sentence in story

B. Techniques and Materials:

1. have students write the steps used in:
   a. building a ten-speed bicycle
   b. baking a cake
   c. fixing a flat tire
2. teacher or student may write out sequence of tasks on index cards - scramble the cards - sort the cards
3. use cartoon strips as stimuli for writing sequenced captions
4. limit the choices given to a student
5. give specific questions about what the student should write
6. use the paragraph study sheet

III. Vocabulary and Spelling

A. Problems with:

1. word misuse or overuse
2. syllable omission
3. phonetic/non-phonetic spelling
4. letter order

B. Techniques and Materials:

1. compile vocabulary word bank file cards for definitions
2. teach syllabication in reading
3. develop synonyms
4. use the keyword method for teaching vocabulary

IV. Grammar

A. Problems with:

1. capitalization
2. punctuation
3. syntax
4. verb tense
5. subject-verb agreement
6. word omission

B. Techniques and Materials

1. use practical (concrete) cues to develop punctuation
2. use cloze techniques for pointing out word omission
3. review rules of capitalization

General suggestions for stimulating written expression:

1. Let the student know that s/he will receive a graded paper with positive comments, i.e., "this a long story", "you really used your imagination".

2. Some commercial materials available:

a. The Writing Center, Publisher: Winston Press
25 Groveland Terrace
Minneapolis, Minnesota
55403

b. Title Twister, Publisher: Teachers Exchange of
San Francisco
600 35th Avenue
San Francisco, CA 94121

c. Story Starters, Publisher: Teachers Exchange of San Francisco (Same as above)

d. Other materials listed in the Multi-Media Catalogue.

3. Cut out newspaper or magazine pictures to serve as stimuli.

4. Have the student illustrate his/her story.

Remedial Reading Activities

Sight Words

1. Football - On a piece of posterboard draw a football field with lines representing ten yards. Then make a sight word list from history, science, poetry, or any appropriate content unit.

A cardboard football is placed on the ten yard line. The first player reads the first sight word on the list. If he pronounces it correctly, he advances ten yards towards his opponents goal. If he cannot pronounce it, he moves the ball back ten yards towards his own goal. A player crossing his opponents goal line is awarded six points. If he reads the next word correctly, an extra point is added. The first player to reach a predetermined score or time limit is the winner.

Questions to Ask About Reading

The types of questions that are asked about reading can aid the reader's understanding of the selection while strengthning his/her comprehension skills. Include at least one question for each type of comprehension: literal, reorganization, inferential, evaluation, and appreciation. Barrett's

Taxonomy of Reading Comprehension illustrates each of these five areas of comprehension.

THE BARRETT TAXONOMY OF READING COMPREHENSION

1.0 Literal Comprehension: Focuses on ideas and information which are explicitly stated in the selection.

1.1 Recognition requires the student to locate or identify ideas or information explicitly stated in the reading selection itself.

- Recognition of Details
- Recognition of Main Ideas
- Recognition of Sequence
- Recognition of Comparison
- Recognition of Cause and Effect Relationships
- Recognition of Character Traits

1.2 Recall requires the student to produce from memory ideas and information explicitly stated in the reading selection.

- Recall of Details
- Recall of Main Ideas
- Recall of Sequence
- Recall of Comparison
- Recall of Cause and Effect Relationships
- Recall of Character Traits

2.0 Reorganization: Requires the student to analyze, synthesize, and/or organize ideas or information explicitly stated in the selection. The student may utilize the statements of the author verbatim or he may paraphrase or translate the author's statements.

- Classifying
- Outlining
- Summarizing
- Synthesizing

3.0 Inferential Comprehension: Is demonstrated by the student when he uses the ideas and information explicitly stated in the selection, his intuition, and his personal experiences as a basis for conjectures and hypotheses. He may infer:

- Supporting Details
- Main Ideas
- Sequence
- Comparisons
- Cause and Effect Relationships
- Character Traits
- Predicting Outcomes
- Figurative Language (meaning inferred)

4.0 Evaluation: Questions here require responses by the student which indicate that he has made an evaluative judgement by comparing ideas presented in the selection with external criteria provided by the teacher, other authorities, or other written sources or with internal criteria provided by the reader's experiences, knowledge, or values. Evaluative thinking may be demonstrated by asking the student to make the following judgements.

Reality or Fantasy
Fact or Opinion
Adequacy or Validity
Appropriateness
Worth, Desirability and Acceptability

5.0 Appreciation (Affective Domain): Involves all the previously cited cognitive dimensions of reading, for it deals with the psychological and aesthetic impact of the selection of the reader. Appreciation calls for the student to be emotionally and aesthetically sensitive to work and to have a reaction to the worth of its psychological and artistic elements. Appreciation includes both the knowledge of and the emotional response to literary techniques, forms, styles, and structures.

Emotional Response to the Content
Identification with the Characters or Incidents
Reactions to the Author's Use of Language
Imagery

Below are examples of questions relating to the five points discussed above in Barrett's Taxonomy:

I. Literal Comprehension

A. Recognition

1. Locate and identify the factors that caused the main character to _____.
2. Locate and identify the individuals who caused the disturbance.
3. Show me the index (table of contents, chapter headings, etc.).
4. Find the page where such-and-such is described.
5. Show me a word which you didn't know. How did you figure it out?

B. Recall

1. Who is the author?
2. What do you know about his/her family (home, etc.)?
3. Who is the central character?
4. After _____ (an incident), what happened next?
5. Tell me (us) what happened first; then _____?

II. Reorganization

A. Summarize the main ideas.
B. What do you feel the author is trying to tell people?
C. Describe in your own words the sequence of events which led to the central problem.
D. What ideas are you sure about when you read what the author has written?
E. Tell me the story.

III. Inferentail Comprehension

A. What is this story mainly about?
B. Does this book remind you of any other book?
C. Could you describe this book in a couple of words?
D. Is there something here that isn't actually said?
E. Was there anything in this selection that was not the same as you've heard before?
F. What is the problem of (a character) in this story?
G. What other books by this author do you know about?
H. If such-and-such happened before so-and-so, does it make any difference in the story?
I. Did you ever have an experience like this?
J. Can you find the general topic of this story in another book? in any reference books? texts in other subjects?

IV. Evaluation

A. What kind of selection is this?
B. Does its setting make a difference?
C. Does its time (of year, in history) affect the story?
D. Do you think the story is really about _____?
E. Is there a lesson to be learned in this story? What?
F. Do you think you can believe what it says? Why? Why not?
G. Do you agree or disagree with this selection?
H. What is your own opinion about _____ in this selection?
I. Is this something everyone should read? Why?
J. If only a few people should read it, who would you choose?
K. Is it right for someone (writer, publisher, organization, etc.) to print only a part of a whole story?
L. Can you trust what this author (publisher, newspaper, magazien, etc.) says? Why?
M. If you cannot find out whether a selection is true, what could you do to find out about it?
N. Was this a good story?
O. If you could talk to the author, what would you tell him/her?
P. Do you know anyone like this character?
Q. Who do you know who likes this type of book?

V. Appreciation

A. Do you think it is a happy (sad, frightening) story?
B. Do you trust what you read?
C. Do you believe everything you read? Why?
D. Do all of your friends believe what they read?
E. If you could, would you change the story around?

F. What was the best part of the story to you? Was this part in the beginning, middle, or end of the story? Would you have any idea why that part was where it was?
G. What about this story made you angry (sad, happy)?
H. If you could become one of the characters in this story, which one would you be?
I. What character are you sure you would not want to be?
J. If you could change anything about this story, what would you change?
K. Did you have a problem like the person in this story?
L. Did you get some help with your problem from reading about it?
M. Did you see anything about yourself which you did not know before? Tell me about it.

Spelling

Many students have difficulty with spelling. English spelling is irregular, and most spelling books do not follow a format that teaches spelling systematically. In teaching spelling in a sequential manner, several guidelines should be followed. The first guideline is to disregard the spelling book. Use a list of common words, such as the Dolch list (see Appendix). These are the common, everyday words that students will use most often in their writing. Another good list is the words in Continued Progress in Spelling (Economy). When teaching spelling, teach only spelling.

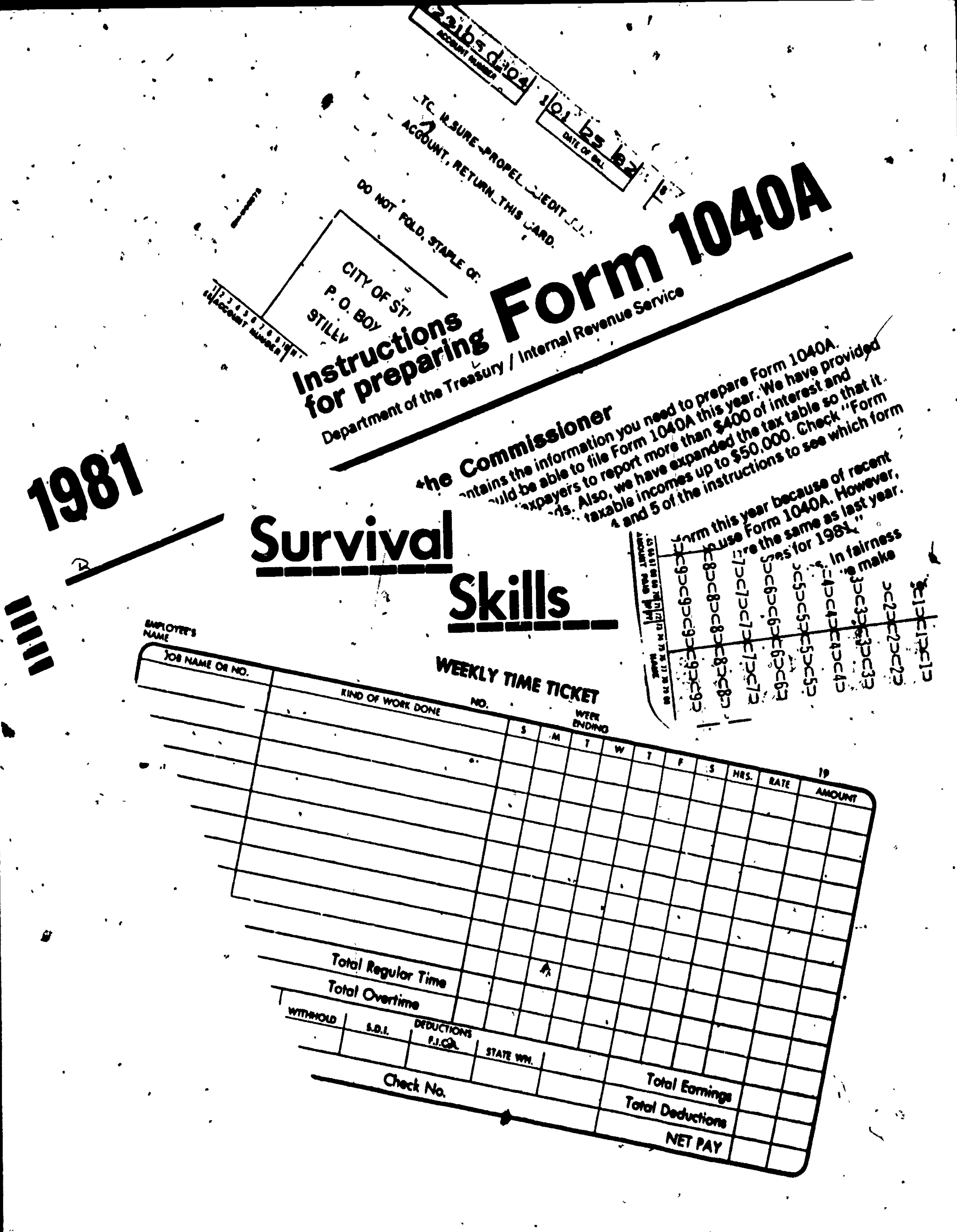
Choose ten words from any of these lists. Pretest the student on these ten words. The student should correct any errors, since the most effective way for learning to spell is to correct one's own errors. The student should then study only the words missed. Test again using all ten words on the next school day. Continue this process, testing each day until the student has reached 100% accuracy. Proceed to the next list of ten words and pretest. A cumulative test may be given after each group of fifty words is mastered. Words that are missed

on the cumulative test can be added back into the list of words to be learned.

The student may wish to use the following method for studying spelling or any other rote material.

Cover and Write Study Technique

1. Look at the word.
2. Cover it up.
3. See if you can write it without looking.
4. Look at the word.
5. Check to see if you got it right.
6. If you did, go on to the next word.
7. If you didn't, look at again and sound it out by syllables or visualize it.
8. Then cover it again.
9. See if you can write it.
10. Check.
11. If you still got it wrong, circle it or check it and go on to the next word or task.
12. When you are finished with the assignment - go back and practice writing the ones you missed.


1981
Survival
Skills
Instructions for preparing Form 1040A
Department of the Treasury / Internal Revenue Service
The Commissioner
ACCOUNT NUMBER
DATE OF BILL
TO INSURE PROPER CREDIT
ACCOUNT, RETURN THIS CARD.
DO NOT FOLD, STAPLE OR
CITY OF ST
P. O. BOX
STILLW
EMPLOYEE'S NAME
WEEKLY TIME TICKET
JOB NAME OR NO.
KIND OF WORK DONE
NO.
WEEK ENDING
S M T W T F S
HRS.
RATE
AMOUNT
Total Regular Time
Total Overtime
WITHHOLD
S.D.I.
DEDUCTIONS
F.I.CA.
STATE WH.
Check No.
Total Earnings
Total Deductions
NET PAY

SURVIVAL SKILLS

Survival skills are those abilities for which a student usually learns during his/her educational career. Many handicapped students need to be taught these skills as they often have not acquired them through normal channels. Survival skills consist of the sequential, structured, developmental skills that most students acquire in the regular calssroom, in addition to self-help techniques that enable a student to process larger amounts of information (such as basic study skills).

The survival skills most commonly utilized are in four basic areas: reading, mathematics, language arts, and study skills. This section will offer suggestions in each of the four areas to aid students in becomming successful in the regular classroom.

Survival skills may be taught in both short and long term goals. The short term goal of survival skills is to be successful in a regular classroom. The long range goal is to be able to succeed in life. As the student gets older and progresses through school, emphasis will shift from short term to long term goals.

The focus of this section is primarily to provide some direction and alternatives for the short term goal of being successful in the regular classroom. Many excellent materials

and resources for the long term goals may be found in the Oklahoma Child Demonstration Center's Multi-Media Catalogue and Supplement I.*

Most survival skills are taught in the resource room or learning lab and are applied in regular content classrooms. However, many of the techniques listed in this publication may be used in the regular classroom.

Textbook Reading

Surprisingly, many students do not know how to read a chapter efficiently. Although they can decode the words and gain some meaning, they do not have good comprehension of the material. One skill that may need to be taught to students is answering the questions at the end of the chapter. Students who do not know this technique are baffled at times by their inability to read and understand information. Teaching the following four steps to students will enable them to study and read more effectively.

How to Answer Chapter Questions

Remember: The questions in the back of the chapter are usually in the order that the reading material is in.

1. Turn to the back of the chapter and read the first question.

2. Then turn to the beginning of the chapter and begin reading until you find the answer to the first question.

3. Answer the question.

Hint: Keep a marker in the book where the questions are and where you are reading so you can find your place easily.

Using SQ3R with Textbooks

Another technique for reading textbooks is the SQ3R method. Many variations of this method have been introduced over the years, but the basic technique still survives.

When studying with textbooks, SQ3R becomes an important tool. If you want to find out just how helpful it can be, just ask other students who have used it. They will tell you it works.

Survey

1. Find the pages of your assignment. Try to guess how long it will take you and how long you can spend on it now.
2. Study the title; change it to a question; think what the words mean.
3. Skim through the assignment, looking at:
   a. subheadings
   b. pictures
   c. charts, maps, etc.
4. Read the chapter summary, or the last paragraph.
5. Read the questions at the end of the chapter.

Question

In surveying your assignment, you may not have gotten any questions: Turn the headings or subheadings into questions. "Thickness of the Ionosphere" may become, "How thick is the Ionosphere?". When you start asking questions, more will come to mind. You will find that you are more interested in the assignment. You may want to write down some of your questions so you can answer them later. Remember: The longer you spend surveying and questioning, the easier it will be to read the assignment because you will understand it better.

The student may write the headings and subheadings as questions with corresponding answers to use as a study guide.

Questions	Answers
1. How thick is the ionosphere?	1. The ionosphere, which runs from 80 km to 600 km above the earth is approximately 520 km thick.

Read

If a word's meaning is not clear to you by the way it is used in the sentence, write it down and look it up in the dictionary later. When you are reading, ask yourself, "What is the writer trying to tell me? What is he trying to get me to think or do? Is he giving me the facts, or just his opinion?"

Recite

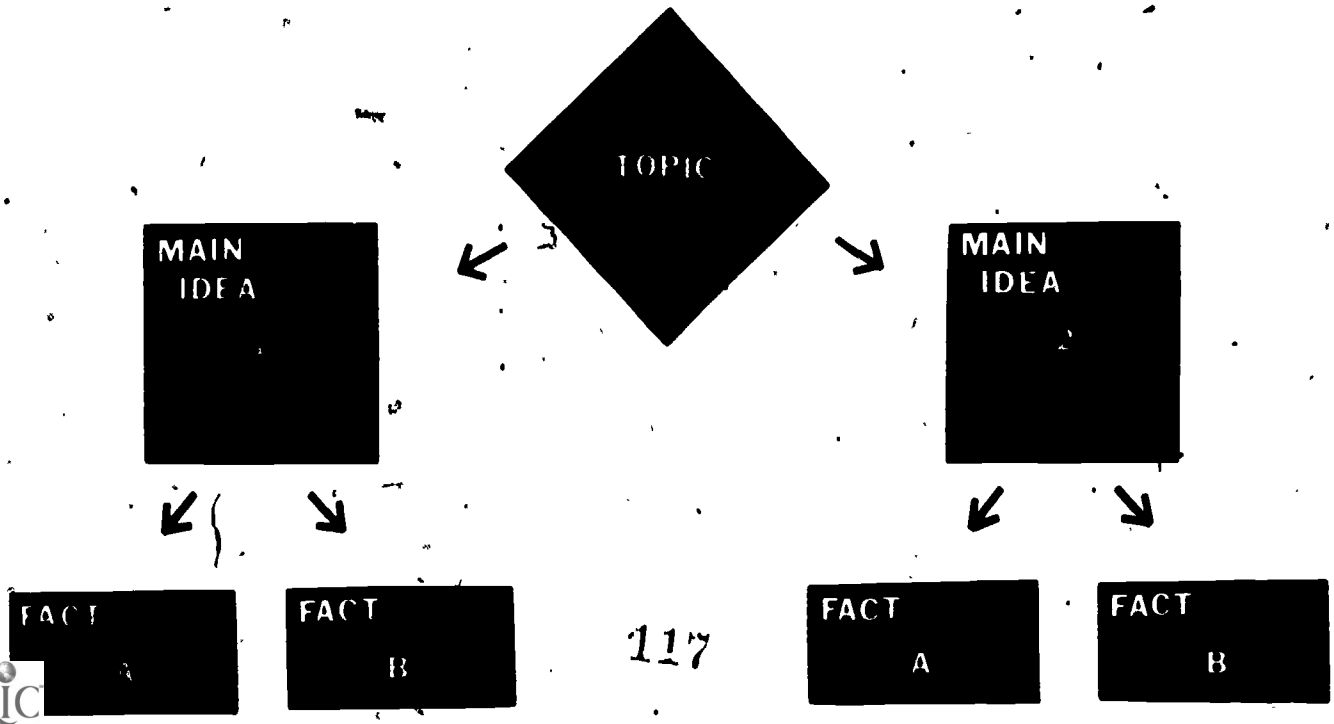
Now you can show yourself and your teacher what you have learned from reading the assignment. You can do this by answering questions in class, by writing a report about it, by outlining it, or by taking a test over it. Anyway, you may want to take short notes after reading each part or after you finish the whole assignment.

Review

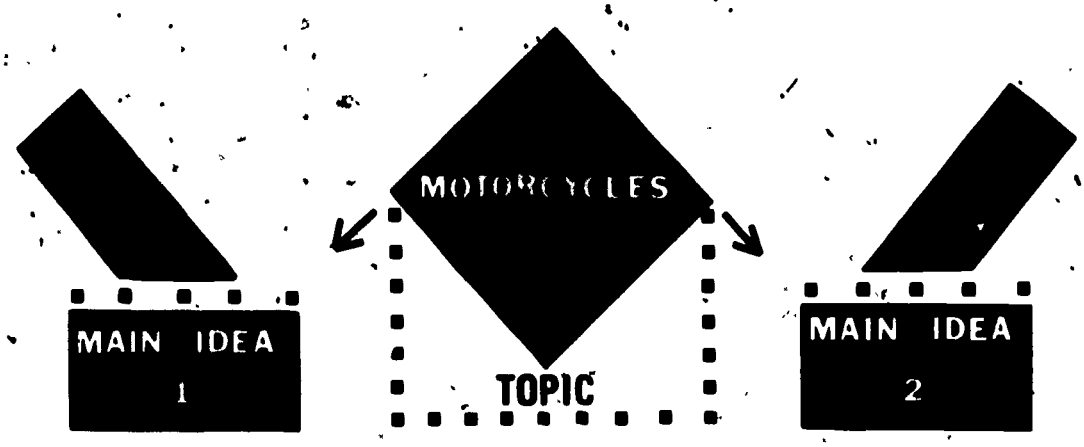
It is important to review each part just after reading it. Close your book and see how much you remembered. When you have finished reading the whole thing, flip through the assignment and try to remember the important ideas of each part.

Paragraph Structure

The following diagram can be used to teach students to write better paragraphs. The student uses the diagram instead of an outline since the diagram is more concrete. The diagram can be exended for longer writing assignments. Students can be taught to outline once they have mastered the use of this chart.



The chart may be put on cardboard in such a way that there are packets for each part of the diagram. The teacher then gives the students slips of paper with the appropriate ideas and they then put each slip into the appropriate pocket. The student then writes the entire paragraph.



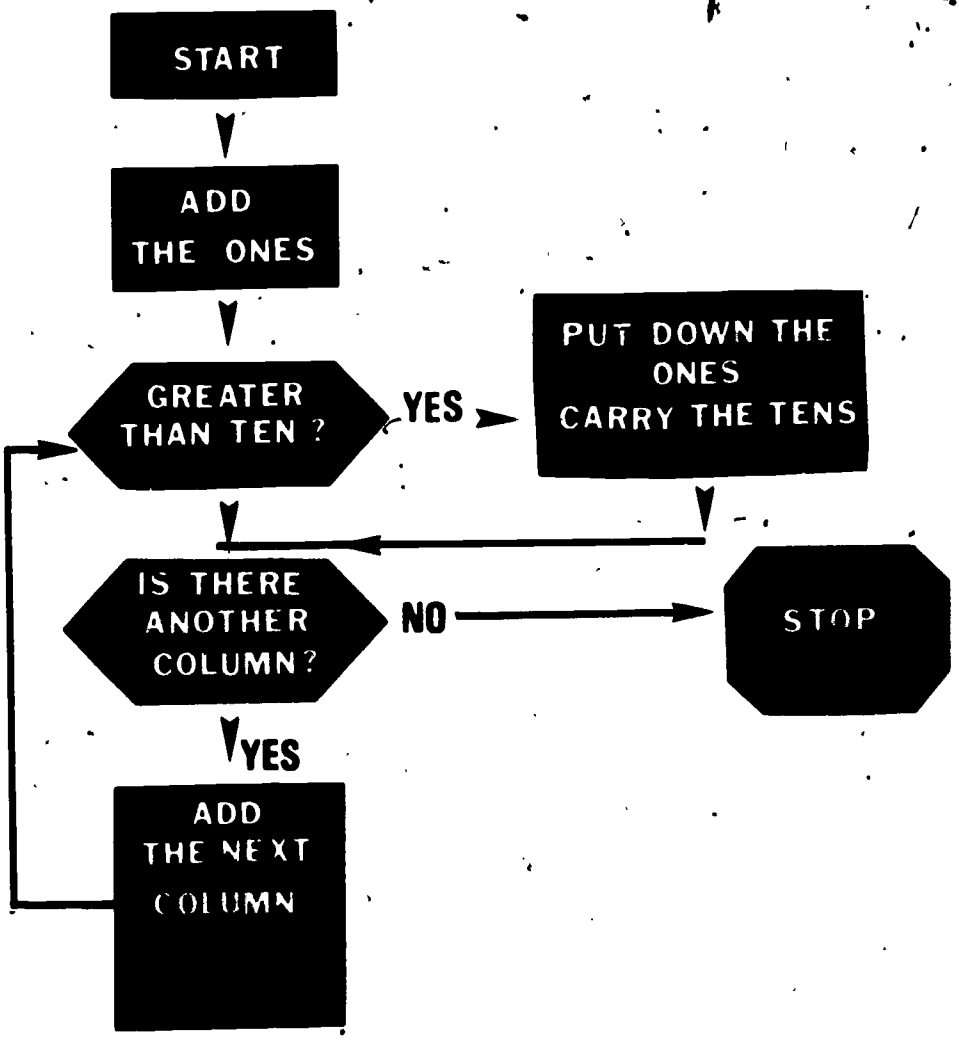
Mathematics

Students who need survival skill instruction in mathematics usually require concrete, highly sequenced instruction. Mathematical learning is hierarchical in nature, each new concept and/or function relying upon mastery of previous functions. Students who have fallen behind in math report that they are merely moving numbers on paper without really understanding the processes. Concrete materials are necessary with many students - pictures and visualizations simply do not work. Although there are numerous commercial objects available, any small objects will do. Toothpicks are good manipulables for whole number operations since they can easily be bundled for place value study.

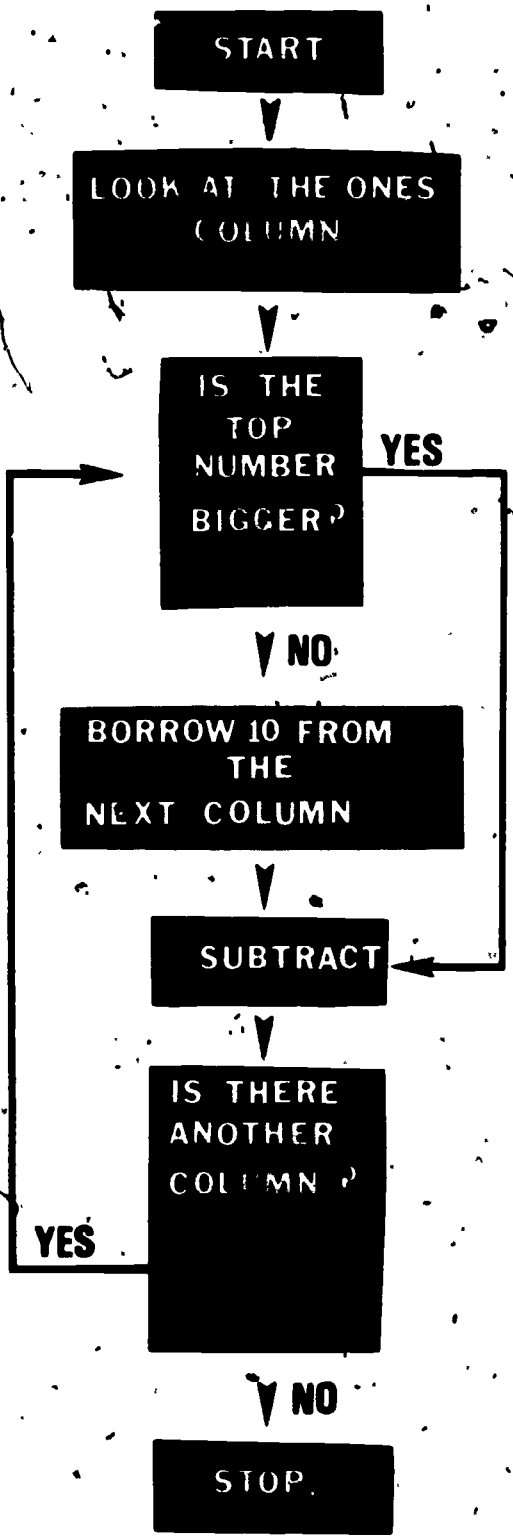
Many students make errors because they do not follow the

correct sequence in working problems. Flowcharts are especially helpful for these students. The student learns to follow the flowchart as each step is performed. Soon the need for the flowchart no longer exists. Sample flowcharts for addition, subtraction, and division follow. These may be made simpler for students requiring that adjustment. Other flowcharts can be made for fractions, measurement, etc.

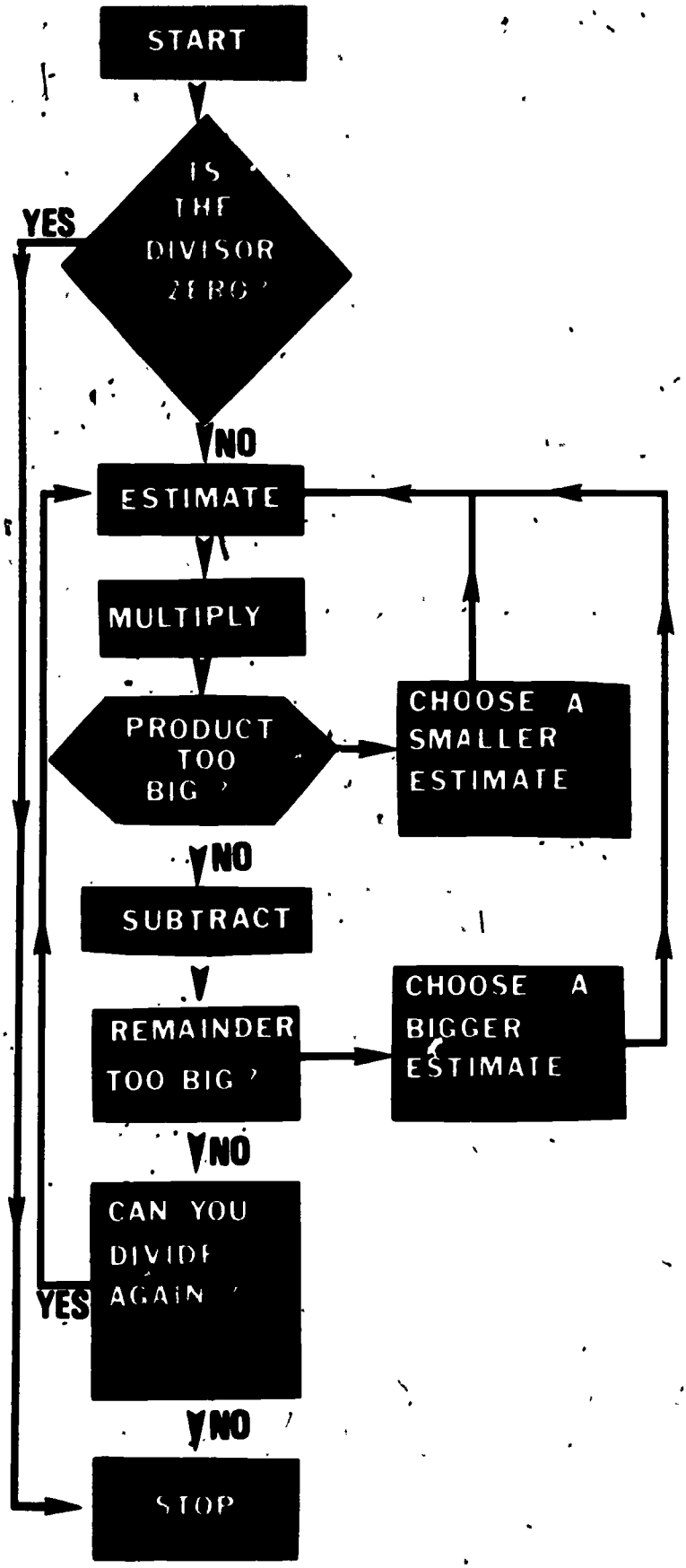
ADDITION:



SUBTRACTION:



DIVISION:


START
IS THE DIVISOR ZERO ?
YES
NO
ESTIMATE
MULTIPLY
PRODUCT TOO BIG ?
CHOOSE A SMALLER ESTIMATE
NO
SUBTRACT
REMAINDER TOO BIG ?
CHOOSE A BIGGER ESTIMATE
NO
CAN YOU DIVIDE AGAIN ?
YES
NO
STOP

Bank Forms (Class)

Visit your local bank and ask for classroom quantities of the various forms a person might use at a bank - savings slip, deposit slip, withdrawal slip, application for a loan, etc.

Distribute thest to the class and go through each form so that students learn how to fill out the forms.

You might then arrange a filed trip to the bank to find out how each form is processed.

Insurance Forms (Class)

Collect sample insurance policies from local insurance companies for each member of the class. Discuss with the class the purpose of different kinds of insurance - life, home, car, etc. Select a form and discuss some of the terms on the form such as deductible, liability, etc.

Income Tax Forms (Class)

Obtain a 1040 or 1040-A form for each student in your class. Before completing the form find out from students whether they know who must file the form, what forms should be used, when the forms should be filed, etc.

Go through each item on the form and have students fill out what they can - example: Name, address, filing status, exemptions. Discuss the meaning of each item on the form such as dividends, interest, adjusted gross income, etc.

Discuss the purpose of income taxes - federal and state. You might have a group of students investigate other kinds of taxes - gift, inheritance, etc.

SUGGESTIONS FOR TAKING NOTES

Students often do not know how to organize their notes on paper. The following formats help students to organize their note taking and enables the students to use their notes for study.

EXAMPLE 1

Page references	Vocabulary	Notes	Summary or Review

EXAMPLE 2

Page references	Notes	Sample Questions
		(Have students make questions from statements taken in notes.)

Using the first format the student uses the middle portion of the page to take notes during class lectures. The right hand section provides space for the student to summarize his notes immediately after class or after school; OR this

section can be used to write additional information from class review before a test. Important vocabulary words and their definitions from the lecture or text can be listed in the left column. Page references in the extreme left column relate textbook passages to the lecture.

The second format features sample questions and answers taken from the lecture or text; OR the student takes notes, then as a study review, makes each statement into a question. These questions help highlight important material.

Some general considerations for effective note taking are:

1. The student can be helped to organize his thoughts and notes by providing a clear, concise outline or format.
2. Keep notes brief and pertinent.
3. Use clues to identify important topics in lectures which should be recorded, e.g. material written on the board, repitition of a word or phrase.
4. Use abbreviations (w/, etc., i.e., e.g.).
5. Use indentions to separate major and minor points.
6. Always date and page number notes.
7. Review notes soon after they are written.

Instant Study Skills

Many students do not know how to study. They are expected to learn to study without being taught how to do it. The first week of the semester is the perfect time to teach students these study skills because they require little time investment by the student. These are written to the student, and may be used as a handout.

IN THE CLASSROOM

1. Sit as close to the teacher as you dare on the first day of class.

Do you know that students who sit closer to the teacher get better grades? Perhaps that's true because often the people who choose to sit closer to the front are the more serious students. (They would get good grades no matter where they are in the classroom.) However, there is some evidence that regardless of ability, students can increase their chances for a good grade by sitting closer to the teacher. The closer you sit, the fewer visual distractions there are. The fewer the distractions, the easier it is to concentrate and to take notes. And to cap it off, you are much less likely to daydream, read a paper, or write letters if you are under the instructor's eye. So, sit as close as you dare. If the seating is assigned, wear glasses and plead near-sightedness. Just get up front.

Why would you sit there on the first day? Because students are creatures of habit. You tend to use the same seat automatically. Did you ever notice that you step over the same feet and bump into the same knees going to your seat every day? Seating position tends to be a habit. Use it to your best advantage. Sit down front, and establish the habit early.

2. Review previous class notes occasionally.

Let's be honest...everyone gets bored occasionally in class, even the teacher. If you're bored in a lecture, don't doodle in your notebook or write letters. Flip through your previous notes. You are in the classroom anyway, so you may as well be productive. Looking over previous notes may generate some interest and help get you back on the track. Even if the teacher continues to ramble and you continue to be disinterested, reviewing previous notes will be a good way to get ready for upcoming examinations. The more review you do, the better able you will be to retain material later for exams.

3. Copy down almost everything on the board, regardless.

Did you ever stop to think that every blackboard scribble may be a clue to an exam item? You may not be able to integrate what is on the board into your lecture notes, but if you copy it, it may serve as a useful clue for you later in reviewing. If what the teacher says doesn't seem to agree with what he has written on the board, or if you can't see how it relates, jot down a word or two from the board in the margin or your ntoes. A single word may be useful to you later. If not, you haven't wasted anything. You were in the classroom anyway.

4. Try to find a place for study and nothing but study.

Do you have a place for study you can call your own? As long as you are going to study, you may as well use the best possible environment. Of course, it should be reasonbly quiet, and relatively free of distractions like radio, TV, and people. But that is not absolutely necessary. Several surveys suggest that 80% of a student's study is done in his own room, not in a library or study hall. A place where you are used to studying and not doing anything else is the best of all possible worlds for a student. After a while study becomes the appropriate behavior in that particular environment. Then whenever you sit down in that particular niche in the world, you'll feel like going right to work. Look at it this way: When you come into a classroom you sit down and go to work by paying attention to the teacher. Your attitude and attention and behavior are automatic because in the past the room has been associated with attentive listening and not much else. If you can arrange the same kind of situation for the place where you study, you will find it easier to sit down and start studying.

5. Before you begin an assignment, write down on a sheet of paper the time when you expect to be finished.

This one step will not take any time at all. However, it can be extremely effective. It may put just the slightest bit of pressure on you, enough so that study behavior will become instantly more efficient. Keep the goal sheets as a record of your study efficiency. Try setting slightly higher goals on successive evenings. Don't try to make fantastic increases in rate. Just push the goal up a bit at a time.

6. If your mind wanders, stand up and face away from your books.

Don't sit at your desk staring into a book and mumbling about your poor will power. If you do, your book soon becomes associated with daydreaming and guilt. If you must daydream, and we all do it occasionally, get up and turn around. Don't leave the room. Just stand by your desk, daydreaming while you face away from your assignment. The physical act of standing up helps bring your thinking back to the job. TRY IT!! You'll find that soon just telling yourself, "I should stand up now" will be enough to get you back on the track.

7. Stop at the end of each page and count to ten slowly when you are reading.

This is an idea that may increase your study time and it will be quite useful to you if you find you can't concentrate and your mind is wandering. If someone were to ask you "What

have you read about?" and the only answer you could give is "About 30 minutes", then you need to apply this technique. But remember, it is only useful if you can't concentrate, as a sort of emergency procedure.

8. Flip through your reading or assignment quickly before you go on to something else.

Few students realize that a short immediate review is their very best study time investment. This one step may take a tiny bit more time so it really can't be considered an instant study skill. However, you will find that the very few minutes you take flipping through an assignment before you start something new will aid you tremendously in retaining the material for future review. Research has indicated that a brief review, at the end of a study assignment, is much more efficient than the same amount of time spend in review later on. The immediate review is terribly important.

UNDERLINING

9. Never underline a whole sentence.

Many students underline as they are reading. They underline whole sentences and in some cases whole paragraphs. For the most part, they are wasting their time. If you underline, and a very well controlled study indicated that it is the most efficient way to take notes, underline only after you have read the material. Go back and pick out a few words that summarize the author's main point. Never underline a whole sentence. If you do, you will not be forced to select from the material that which seems important to you.

TIPS ON TAKING EXAMS

10. When you take an examination, do the easy questions first.

This is a good technique whether you are writing an essay test or answering objective questions. Research has shown that taking easy items first on a test tends to produce better results than taking the difficult items first on the same test. So skim over the test and find where to begin. On an objective test don't spend a lot of time worrying over a tough items. Skip it and come back to it later. On an essay test write the easy items first but leave plenty of space so that your answers will be in the correct sequence.

11. On an essay test write down something for every item.

Be sure to read the directions. You may be asked to write only part of the items. Then, for each item you select, write something. Don't leave any item blank. You can only get a zero for the question. But if you have something - maybe even a little wild and apparently unrealted - you may pick up a few points.

12. On an essay test, be neat!

Some informal research has indicated that a neatly written paper is worth about one letter grade more than the exact same paper written in a sloppy, messy sort of way. Look at it this way: You are an instructor and you have read through 45 or 50 essay exams. You are just naturally going to be a little more sympathetic to the person who makes your job easier by writing neatly and clearly. So for an essay test do the best you can to make the teacher's reading more pleasant. The teacher will probably repay you many times for your effort.

13. On objective tests, if you change your mind, change your answer!

Many students think that their first answer to a test item is somehow magically the best. On the basis of that unfounded belief, they rarely change answers. Perhaps you, yourself, have changed your response to an objective item and found out later that you were wrong. That was such an uncomfortable event that you couldn't forget it. "Never again," you tell yourself. "I'll stick to my first choice." But you probably also changed your answer many times and got them right. However, doing that was such a reasonable thing that there was no reason to remember it.

As a matter of fact, the question of whether or not to change answers has been carefully researched. All of the studies, over decades, are quite consistent. They indicate that on the average you can expect to pick up more points that you will have lost by changing answers. So if you change your mind, change your answer.

Perhaps you want to test out this suggestion. If so, you need only to keep a careful track of your changes. Check with your answer sheet later to find out how many points you gained and how many points you lost by the changes. Then, in the future you can be guided by data, not superstition.

Here you have a set of instant study improvement techniques. Each of them is designed to improve your grades and make studying a little bit easier without any extra time devoted on your part. These techniques certainly can't hurt you. And as long as you have to put the time in anyway, why not ....

"Instant Study Skills", "Test Taking Tips for True/False Test", "Test Taking Tips for Essay Tests" and "A Study Plan

for Test-Wise" were synthesized by Deborah J. Grames of the Greensboro Public School, which was one of the original adopters of the Model Learning Disabilities Program at the Oklahoma Child Service Demonstration Center.

TIPS FOR TRUE FALSE/TESTS

Do you panic or feel confused when faced with a TRUE/FALSE test? Would knowing some "tricks of the study skills trade" make you feel more confident? Then learn the strategy below and apply it during your next test session.

SCORER is an acronym for a series of steps that can improve your ability in passing and/or raising your grade in TRUE/FALSE tests.

I. S = Schedule your time

At the beginning of the test, estimate quickly how much time you can allow for each question. Stick to this estimate. Don't get hung up on just one difficult item. (To estimate time, divide time by number of questions such as 60 min. ÷ 60 questions = 1 min. per question.)

II. C = Clue Words

Paying attention to clue words in TRUE/FALSE statements can help you choose the correct answer even though you are unsure of the subject matter.

1. Statements are usually false that contain clue words which indicate that the statement must always be true with no exceptions. (Such words are: all, every, none, always, invaribly, never, best, exactly, worst.)

2. Statements are usually true that contain clue words which modify the absoluteness of the statement. (Such clue words are: many, most, some, few, often, usually, sometimes, seldom, more, equal, less, good, bad.)

3. Watch out for statements that are really definitions as: "All triangles have three sides." (This is a true statement: be careful of these statements in science and math areas.)

III. Q = Omit Difficult Questions Until Last
Answer the easy questions first as you go through your test and place a mark by the doubtful statements. This action will help you stick to your time schedule; will ensure your receiving points on all the items you know; and may trigger your memory when going back to answer the doubtful statements on the test. Repeat this procedure until all questions are answered. (Hint: On tests that count only the correct answers in the score or for tests that do not penalize for wrong answers, ALWAYS give an answer. The percentages are on your side for picking up some points even through guessing.)

IV. R = Read Each Question Carefully
Reading each TRUE/FALSE statement carefully (and your instructions) can sometimes make or break your test scores.

1. Remember to interpret TRUE/FALSE statements as they are stated. Don't become emotionally involved with statements so that you are reading more into the statement than there is.

2. Also remember that all parts of TRUE/FALSE statements must be completely true or flase.

V. E = Estimate Answers (intelligent guessing)
Most objective type tests are scored by counting only your correct answers. (But be sure this is the way your test will be scored before applying the intelligent guessing strategy.) When you must guess, use all the tips you have learned so far about TRUE/FALSE tests, especially about clue words.

VI. R = Review Your Work
In your estimated schedule of time spent on each question of the test, you should have also allowed a few minutes in which to look back over the entire test. Don't ever leave a test before you must. Check each of your answers - you may have made a careless mistake, but don't change answers unless you have a good reason.

TIPS FOR MULTIPLE CHOICE TESTS

1. Read through the test quickly answering only questions that you are sure about. (Many times clues to answers can be found in other questions.)

2. Read the entire question and all the possible answers. Sometimes the last answer is the best answer even though other answers might work.

3. Read all possible answers, mark through the first letter of those you are pretty sure are not right. Usually a question will have one right answer, and two that are distractors and one that is definitely wrong.

4. Locate distractors. Sentences with always, never, none and all are often distractors -- but not every time. Be careful.

5. If you can find 1 or 2 distracting answers, then look closely at them as they may give you the clue to the right answer. Ask yourself -- "what makes this a distractor" and then select the "best" answer.

6. If you have two options that you feel are equal, select one and write a brief rationale in the margin - usually good for extra credit even if wrong.

7. If you change your mind change your answer on multiple choice tests.

8. On standardized tests, leave unknown questions until last. If you have time, count the number of A's, B's, C's and D's. Usually there will be an equal number of each. Odds are that if you have fewer of one that will be the one you should tend to select on the remaining questions.

9. Never leave a multiple choice question unanswered. You have at least a 25% chance of getting it right just by accident. If you can eliminate 2 choices, you are just as likely to get it right as you are to get it wrong.

10. When in doubt, guess B or C. Teachers often try to "hide" the answer.

(Prepared by Jim Mason, former Director of Project Mainstream.)

TIPS ON ESSAY TESTS

I. Before the Test

1. Try to predict and practice writing the answers to questions that you think will be asked. (Chapter titles and subheadings can be a good source for possible questions.) Essay questions usually contain such clue words as:

Trace...	Discuss...	Illustrate...
Define...	Evaluate...	Compare and Contrast...

(Study the list of clue words and their meanings at the end of this handout.)

Check your notes. What topics did the teacher emphasize.

2. Know the course jargon. Study the spelling of words that you might use on (or "plant" in) the test.

II. During the Test:

1. Take a good writing utensil to class. (Teachers appreciate dark lead or ink they can see.) Watch your handwriting, spelling and writing mechanics during the test.

2. Read quickly through all the questions before beginning to write. Estimate the time you can allow for each question. Plan to answer all the questions that you know first. Begin each answer on a separate page, keeping them in order.

3. Read your general test instructions. (You may have options as to how many questions you must answer.) Be sure to read each question carefully to determine what is really being asked. Sketch an outline in the margin or on scrap paper making sure that all important points are included and follow a logical order. Avoid answers that begin: "It is when..."; and "It is because...." (Who knows what "it" is referring to?)

4. In writing your essay answers, make a separate paragraph for each of the main ideas or statements within one essay answer. Put your details and examples under their respective main ideas. This aids organization and writing mechanics.

5. Read over your paper before you turn it in. Check for completeness in expression and ideas and for mechanical errors. Do not change an answer unless you are sure of a mistake as first impressions are usually correct.

6. Use all of your test time. Leave only when the teacher makes you.

III. After the Test:

1. To improve your test-taking skills, go over <u>all</u> returned papers carefully. Observe your shortcomings and mistakes so that you will not make the same ones on later tests.

IV. <u>List of Essay Clue Words and their Meanings</u>:

1. Essay questions contain clue words that tell you the kind of information your teacher wants. Improve your test-taking capabilities by learning the following list: (Teachers may wish to teach these as vocabulary study.)

Clue Word	Action Required
Analyze	Means to find the main ideas and show how they are related and why they are important.
Comment on	Means to discuss, criticize, or explain its meanings as completely as possible.
Compare	Means to show both the similarities and differences.
Contrast	Means to compare by showing the differences.
Criticize	Means to give your judgement or reasoned opinion of something, showing its good and bad points. It is not necessary to attack it.
Define	Means to give the formal meaning by distinguishing it from related terms. This is often a matter of giving a memorized definition.
Describe	Means to write a detailed account or verbal picture in a logical sequence or story form.
Diagram	Means to make a graph, chart, or drawing. Be sure you label it and add a brief explanation if it is needed.
Discuss	Means to describe giving the details and explaining the pros and cons of it.
Enumerate	Means to list. Name and list the main ideas one by one. Number them.
Evaluate	Means to give your opinion or some expert's opinion of the truth or importance of the concept. Tell the advantages and disadvantages.
Illustrate	Means to explain or make it clear by concrete examples, comparisons, or analogies.
Interpret	Means to give the meaning using examples and personal comments to make it clear.
Justify	Means to give a statement of why you think it is so. Give reasons for your statement or conclusion.

List	Means to produce a numbered list of words, sentences, or comments. Same as enumerate.
Outline	Means to give a general summary. It should contain a series of main ideas supported by secondary ideas. Omit minor details. Show the organization of the ideas.
Prove	Means to show by argument or logic that it is true. The word "prove" has a very special meaning in mathematics and physics.
Relate	Means to show the connections between things telling how one causes or is like another.
Review	Means to give a survey or summary in which you look at the important parts and criticize where needed.
State	Means to descirbe the main points in precise terms. Be formal. Use brief clear sentences. Omit details or examples.
Summarize	Means to give a brief, condensed account of the main ideas. Omit details and examples.
Trace	Means to follow the progress or history of the subject.

This list is too long for most students to memorize, but try to remember the seven most often used clue words:

discuss, contrast, compare, criticize, define, describe, list.

STUDY PLAN FOR THE TEST-WISE

1. START WITH AN OVERVIEW OF REMAINING TASKS - SCHEDULE YOUR TIME ACCORDINGLY.

   a. Overview all materials for each class. Evaluate and list priorities among remaining study tasks and estimate time needed for each. How do the notes, the text, the supplementary readings relate? How much weight will be given on each exam? How will you therefore apportion time among unfinished reading, reviewing reading and notes, identifying major themes and issues, etc.?

   b. Then sketch a rough calendar of the weeks, days, hours remaining before each exam and plot a chart of the hours

actually available for study. Objectively and realistically apportion your remaining tasks into these hours, taking into consideration these tips for scheduling:

Break large tasks into more workable sub-goals and apportion specific time for each.

Allow longer study periods for grasping total relationships and concepts; use shorter time intervals for review, self-testing, reinforcement; routinely use odd moments (waiting for bus, walking to library) for periodic recall and review.

Do difficult tasks first, then reward yourself with easier ones.

Take brief breaks; don't study all the time. Daily physical exercise is especially important.

Vary tasks and topics during lengthy study periods. Rework notes, then read; alternate history with math, etc.

Find a special place to study and use it only for that. Make it become a stimulus just to study; if you're daydreaming and not studying, then walk away for a few minutes.

Stick as much as possible to your own regular study and work hours. Adhere to your own biological clock of peak study times rather than adopting someone else's bizarre schedule.

c. In essence, avoid the "escape" syndrome of fretting and talking more about studying than actually studying. Simply make a realistic appraisal of priorities re: What's got to be done, how much time there is to do it, and when it will be done. THEN DO IT.

2. PLAN EFFECIENTLY WITH UNREAD MATERIAL

a. Shortly after you have gathered all material for the class together and plotted the overall organization you should dig into the unfinished reading. You'll have a much better perspective from which to approach it.

b. Preview the materials. Divide it into realistic parts and sub-goals. Set time limits for each part and begin.

c. Read - holding yourself to the time you've set even if you must skim key sentences only. It's better to get some information than none. Pace yourself by moving a card or pencil down the page as you read.

d. Recall the material by immediately self-testing at the end of each page or part. This enhances retention even with-

out later review.

3. REVIEW ACTIVELY - NOT PASSIVELY

a. Re-work notes and text into one "whole" so that you'll be aware of the forest before concentrating on the trees. Arrange major points chronologically or topically. Construct over-all diagrams, charts or outlines.

b. Don't waste you time passively re-reading. Instead, review the table of contents or the chapter sub-headings; try to recall the important points. Recite them, write them, say them, hear them, think them. Reinforce by using as many senses as possible. Spend more time actively reciting and less time just re-reading.

"Looking Over" class materials is easy, comfortable, temporarily reassuring . . . and usually wasteful of your time. While it may be gratifying to discover that terms or text look familiar, this sight recognition is seldom sufficient for good performance on a test. You must instead find a variety of ways in which you can test yourself as you review. Reciting is one of the most powerful ways to learn and remember. Constantly practice restating, repeating, putting into your own words what you've just learned.

c. Anticipate exam questions and practice answering them under typical test time limits. Waiting for the teacher to raise the questions at the exam does not lead to a well-ordered plan of attack on the content of the course. Choose the questions you would ask if you were planning the exam, then practice synthesizing by pulling together your own answers to these questions. Refer to earlier exams in the course to get an idea of the kind of question that will be asked. Reviewing with others at this point might be helpful if everyone already "knows" the material.

4. UTILIZE EFFECTIVE TEST-TAKING TECHNIQUES.

a. General suggestions: Give yourself the advantage of a good head start. Arrive with enough time to arrange your working conditions and build a calm, alert attitude. Avoid getting involved in a last-minute cram session with panicky classmates. Preview the whole test quickly (for format, point distributions, missing pages, etc.). Have instructor clarify any ambiguities in questions before attempting to answer them. Plan a time schedule for each question or section - it's your responsibility to attempt all questions in time allowed.

APPENDIX

Mainstreaming Forms

Each of the following forms has been used successfully in the Oklahoma Child Service Demonstration Center model and their adopted schools. The purpose of these forms is to foster communication between content area teachers and resource room teachers. Since not all forms are appropriate for every school, a variety of forms is included. We suggest that you select the forms that will be most helpful for your school system. Other forms used by the Oklahoma Child Service Demonstration Center may be found in the Diagnostic Evaluation Forms booklet available from the project.

From: Mainstreaming the LD Student

By: South Carolina Region V. Educational Service Center

The resource teacher may want to receive periodic written reports from the regular classroom teachers. An appropriate time to ask for these reports is at the end of each reporting period. The following forms have been used successfully for this purpose.

Report from Regular Class to LD Resource Room

Student: _____ Subject: _____

Grade, this reporting period _____

Date _____

Was this student able to read class material?

Yes _____ No _____

Did this student put forth effort in the classroom?

Yes _____ No _____

Did this student complete home assignments?

Yes _____ No _____

Are there any special problems with this student?

_____

_____

_____

Do we need a special conference? Yes _____ No _____

If yes, preferred date and time _____

_____

Signature

Periodically, the resource teacher will need to see teachers in groups to discuss ongoing problems of learning disabled students in general and the problems being encountered by the students in their school specifically. The teachers as a group can discuss behaviors exhibited in different situations and also help generate suggestions for classroom adjustments suitable to individual needs.

A letter such as the following may announce such a meeting.

To: All Teachers

From: H.K. Boucher, Principal

On Wednesday, November 24, the LD Resource Teacher will hold a workshop for the regular classroom teachers. The workshop will be conducted all day, but each subject teacher will only attend during his/her planning period. We apologize for taking away your planning period for one day, but feel we have some practical suggestions for use with the learning disabled students in your class. We also need input from you as to appropriate classroom adjustments.

The coordination between the resource room and the regular classroom has been the major reason for the success of the LD program. We appreciate your cooperation thus far and look forward to seeing you Wednesday.

In addition to scheduled conferences and meetings and periodic written reports, the resource teacher should be as visable to regular classroom teachers as possible. She should "drop by" informally after school to say "How are things going?" "How is Tommy doing?" etc.

The resource room teacher must work extra hard and oftentimes extra hours to keep up with each student, his regular classroom progress, as well as resource room progress. By keeping teachers informed and "helping them to help students," the success of the total program will be greatly enhanced.

(Courtesy of Bloomfield Hills Schools, Bloomfiled, Michigan)

CHECK LIST

Student: _____ Date: _____

Teacher: _____ Subject: _____

	YES	NO
1. On time		
2. Proper Materials		
3. Listening		
4. Appropriate verbal response		
5. Politeness		
6. Using time well		
7. Turning in assignments		

Comments on behavior:

DeWITT PUBLIC SCHOOLS
SPECIAL SERVICES DEPARTMENT

REPORT FROM REGULAR CLASS TO LD RESOURCE ROOM

STUDENT_____ SUBJECT_____

GRADE (This reporting period) _____

DATE_____

WAS THIS STUDENT ABLE TO READ CLASS MATERIAL?

Yes_____ No_____

DID THIS STUDENT PUT FORTH EFFORT IN THE CLASSROOM?

Yes_____ No_____

DID THIS STUDENT COMPLETE HOME ASSIGNMENTS?

Yes_____No_____

ARE THERE ANY SPECIAL PROBLEMS WITH THIS STUDENT?

_____

_____

DO WE NEED A SPECIAL CONFERENCE? Yes_____ No_____

IF YES, PREFERRED DATE AND TIME_____

_____
Signature

INPUT FOR PLACEMENT MEETING

Student: _____

Teacher: _____

Hour You Have Student: _____

Please make brief comments on the following areas:

Attendance: _____

_____

Homework: _____

_____

Attitude: _____

_____

Grade to Date: _____

General Comments: _____

_____

_____

_____

_____

_____

_____

_____

IEP ADDENDUM
MODIFICATIONS FOR MAINSTREAMING

The following modifications may be necessary for _____ (student's name) to be mainstreamed into regular class.

_____ Mark student's correct and acceptable work, not his mistakes.

_____ Examinations and quizzes should be given orally.

_____ Reading assignments should be presented on cassette tapes.

_____ Make arrangements for homework assignments to reach home with clear, concise directions.

_____ Reversals and transpositions of letters and numbers should not be marked wrong. Instead, reversals or transpositions should be pointed out for correction.

_____ Recognize and give credit for students oral participation in class.

_____ Provide extra test time.

_____ Provide extra assignment time.

_____ Student should be allowed to tape classroom lectures or discussions.

_____ Student should be allowed to copy another student's class notes.

_____ Student should be provided a carbon copy of another student's class notes.

_____ Utilization of peer tutoring.

_____ Utilization of cross-age tutoring.

_____ Avoid placing student under pressure of time or competition.

_____ Accept homework papers typed by the student or dictated by him and recorded by someone else, if need be.

_____ Do not return handwritten work to be copies over; paper is often not improved and student's frustration is added to.

_____ Quietly repeat directions to him, after they have been given to the class; then have him repeat and explain directions to you.

_____ Let him dictate themes or answers to questions on a cassette tape.

_____ Accompany oral directions with written directions for child to refer to (on blackboard or paper).

_____ Do not require lengthy outside reading assignments.

_____ Student should be permitted to use cursive writing.

IEP ADDENDUM, Cont'd

_____ Other _____

_____

_____

Tentative criteria for evaluation of student.

_____ Student is on same grading system as other students.

_____ Student is on same grading system with these exceptions:

_____

_____

_____ Student is on pass/fail system.

_____ Student is on an attendance pass/fail system.

_____ Student will receive credit (Cr.) if his work is commensurate with his ability/F if effort is not present.

MAINSTREAM REPORT

Student: _____ Teacher: _____

Attendance: Good _____ Poor _____ Tardy _____.

Class Participation: Good _____ Poor_____ Comments _____

Assignment Response: Good _____ Poor _____ Past Due Assignments: _____

_____

Grade (at this time) _____ Conference of Assistance requested:_____

_____

MAINSTREAMING PROGRESS REPORT

Teacher: _____

This form is to evaluate _____

performance in your room for the two week period of _____.

CIRCLE ONE:

Attitude Always Acceptable 5 4 3 2 1 0 Never Acceptable

Brings Materials Always Acceptable 5 4 3 2 1 0 Never Acceptable

Work Always Acceptable 5 4 3 2 1 0 Never Acceptable

Please approximate grade to date: _____

*If student is having a specific problem please check this box. ✓_____

Additional Comments:

_____

_____

_____

_____

This lesson plan is sent to the student's regular teacher when the mainstreaming progress report comes back with a low grade.

LESSON PLAN

Teacher: _____

Student: _____

Grade: _____

Date: _____

DAY	REGULAR CLASSROOM ASSIGNMENT
MONDAY	
TUESDAY	
WEDNESDAY	
THURSDAY	
FRIDAY	

Please list book, pages and other material to be used. Attach all handouts.

Include homework and makeup assignments where appropriate.

Name _____

WEEKLY ASSIGNMENT SHEET

WEEK OF: Oct. 26-30

SUBJECT: Social Studies (6th grade)

TEACHER: Mc Swain

MONDAY: Read pages 114-126. Start reading in class - complete for homework. (This is Ch. 6)

TUESDAY: Discuss the Chapters (114-126). Work review questions on pages 126-127. Announce Ch. 6 test on Friday.

WEDNESDAY: Check review questions (pg. 126-127). Discuss the questions + answers. Hand out study sheet on Ch. 6 - Complete for homework.

THURSDAY: Check the study sheets - discuss - give correct answers to study sheets. Test Friday from study sheets.

FRIDAY: Test - Ch 6

(No homework for Monday)

Note: I have the weekly assignment sheets in the teachers mail box the previous Thursday. That way, I'm ready to start Monday morning.

Name _____

WEEKLY ASSIGNMENT SHEET

WEEK OF: _____

SUBJECT: _____

TEACHER: _____

MONDAY: _____

TUESDAY: _____

WEDNESDAY: _____

THURSDAY: _____

FRIDAY: _____

BACK-UP WEEKLY SCHEDULE

TEACHER'S NAME _____ CLASS _____

1) WEEK OF: _____

2) READING ASSIGNMENTS: _____

_____

_____

3) WEEKLY HAND-OUT AND DUE DATES FOR PROJECTS AND/OR STUDY SHEETS:

_____

HAND-OUT	DUE
_____	_____
_____	_____
_____	_____
_____	_____

4) WEEK TEST DATES: _____

_____

_____

---

1) The Learning Center will see that the following things are done each week:

   A. Reading assignments taped or color-coded

   B. All study sheets and projects will be worked on with teacher or aide help for part of each back-up period - when possible. Some regular class assignments might be more pressing than others. No Learning Center class work will be done during back-up periods. This is done for you and the student

   C. We will read tests to the student or students who have reading problems. Please send tests to us.

   D. We will attempt to discuss problems and progress as often as possible. COMMUNICATION IS VITAL

2) Comments on student's work --- problem areas.

DOLCH BASIC VOCABULARY LIST OF READING LEVELS

PREPRIMER	PRIMER	1	2	3
A	ALL	AFTER	ALWAYS	ABOUT
AND	AM	AGAIN	AROUND	BETTER
AWAY	ARE	AN	BECAUSE	BRING
DIG	AT	ANY	BEEN	CARRY
BLUE	ATE	AS	BEFORE	CLEAN
CAN	BE	ASK	BEST	CUT
COME	BLACK	BY	BOTH	DONE
DOWN	BROWN	COULD	BUY	DRAW
FIND	BUT	EVERY	CALL	DRINK
FOR	CAME	FLY	COLD	EIGHT
FUNNY	DID	FROM	DOES	FALL
GO	DO	GIVE	DON'T	FAR
HELP	EAT	GOING	FAST	FULL
HERE	FOUR	HAD	FIRST	GOT
I	GET	HAS	FIVE	GROW
IN	GOOD	HER	FOUND	HOLD
IS	HAVE	HIM	GAVE	HOT
IT	HE	HIS	GOES	HURT
JUMP	INTO	HOW	GREEN	IF
LITTLE	LIKE	JUST	ITS	KEEP
LOOK	MUST	KNOW	MADE	KIND
MAKE	NEW	LET	MANY	LAUGH
ME	NO	LIVE	OFF	LIGHT
MY	NOW	MAY	OR	LONG
NOT	ON	OF	PULL	MUCH

(CONTINUED ON NEXT PAGE)

DOLCH BASIC VOCABULARY LIST OF READING LEVELS

PREPRIMER	PRIMER	1	2	3
ONE	OUR	OLD	READ	MYSELF
PLAY	OUT	ONCE	RIGHT	NEVER
RED	PLEASE	OPEN	SING	ONLY
RUN	PRETTY	OVER	SIT	OWN
SAID	RAN	PUT	SLEEP	PICK
SEE	RIDE	ROUND	TELL	SEVEN
THE	SAW	SOME	THEIR	SHALL
THREE	SAY	STOP	THOSE	SHOW
TO	SHE	TAKE	UPON	SIX
TWO	SO	THANK	US	SMALL
UP	SOON	THEM	USE	START
WE	THAT	THEN	VERY	TEN
WHERE	THERE	THINK	WASH	TODAY
YELLOW	THEY	WALK	WHICH	TOGETHER
YOU	THIS	WERE	WHY	TRY
	TOO	WHEN	WISH	WARM
	UNDER		WORK	
	WANT		WOULD	
	WAS		WRITE	
	WELL		YOUR	
	WANT			
	WHAT			
	WHITE			
	WHO			
	WILL			
	WITH			
	YES			

1
6
3
7
0
5
9
2
8
cut
cut
cut
cut
cut
cut
cut
cut
cut
cut
cut
cut

9		0	9	18	27	36	45	54	63	72	81
8		0	8	16	24	32	40	48	56	64	72
7		0	7	14	21	28	35	42	49	56	63
6		0	6	12	18	24	30	36	42	48	54
5		0	5	10	15	20	25	30	35	40	45
4		0	4	8	12	16	20	24	28	32	36
3		0	3	6	9	12	15	18	21	24	27
2		0	2	4	6	8	10	12	14	16	18
		0	1	2	3	4	5	6	7	8	9

Cut

1	6	3	7	0	5	9	2	8
cut				cut				
		cut						
	cut							
			cut					
					cut			
						cut		
							cut	
								cut

Cut

ADDITION

0		0	0	0	0	0	0	0	0	0	0
9		9	10	11	12	13	14	15	16	17	18
8		8	9	10	11	12	13	14	15	16	17
7		7	8	9	10	11	12	13	14	15	16
6		6	7	8	9	10	11	12	13	14	15
5		5	6	7	8	9	10	11	12	13	14
4		4	5	6	7	8	9	10	11	12	13
3		3	4	5	6	7	8	9	10	11	12
2		2	3	4	5	6	7	8	9	10	11
		1	2	3	4	5	6	7	8	9	10

END NOTES

[1]Multi-Media Catalogue. (Child Service Demonstration Center, Cushing, Oklahoma, 1974-1980).

[2]Multi-Media Catalogue, Supplement I. (Child Service Demonstration Center, Cushing, Oklahoma).

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[4]Crosscurrents: A Prescriptive Teacher Handbook. (Child Service Demonstration Center, Cushing, Oklahoma, 1979-1980).

[5]Diagnostic Forms Book. (Child Service Demonstration Center, Cushing, Oklahoma).

[6]The Perfect Speller. (Grossett and Dunlap, Inc., Educational Division, New York, NY).

[7]Instant Spelling Dictionary. (Career Institute, 1960).

[8]Type It. (Educator's Publishing Company, 1964).