



FRAMEWORK FOR AN INTENSIVE GED PREPARATION PROGRAM*

NOVEMBER 1998

Background

In their 1998 report "A Second Chance: Improving Chicago's GED Performance," the Women Employed Institute (WEI) and the Taylor Institute highlight the need for more Chicago adults to take and pass the GED. The statistics presented identify Illinois as having low pass rates when compared with other states (Illinois is 40th at 64 percent). Moreover, while the percentage of persons in Chicago who attempt the test is higher than in Illinois and the nation as a whole, the pass rate is significantly lower (46 percent in 1996). In Chicago, one in five adults lacks a high school diploma or GED, and among the welfare population, more than half are without high school certification.

WEI and the UIC Great Cities Institute are following up on one of the issues raised by the "Second Chance" report by investigating the need for an Intensive GED Preparation Program among Chicago's GED service providers. In July, WEI convened a focus group of GED service providers to identify the changing demands of GED preparation, decide whether an accelerated preparation framework would be useful, and outline next steps. Providers indicated that they had difficulty giving individual attention to program participants who were close to obtaining their GED. They enthusiastically endorsed further exploration and development of an Intensive GED Preparation Program for students close to passing the GED and recommended that computer options be incorporated into the design where feasible.

Since the focus group, Stephanie Sommers, a workforce development consultant specializing in program and curriculum design, has been working with WEI and the Great Cities Institute to:

- develop a framework for an Intensive GED Preparation Program;
- evaluate readily available basic skills and GED software;
- recommend ways computer software could be incorporated into the framework.

The following is a proposed framework for an Intensive GED Preparation Program. It has been developed for a November workshop for GED preparation and job training providers and other interested parties. The purpose of the workshop is to evaluate the framework, assess the feasibility of implementing it through existing programs, and recommend next steps for further development.

* This framework was developed for the Women Employed Institute and the UIC Great Cities Institute through a grant from the John D. and Catherine T. MacArthur Foundation.

The Purpose of an Intensive GED Preparation Program

The purpose of developing an Intensive GED Preparation Program is to help students close to passing the GED test to gain the GED credential and use it to advance to employment and/or further education and training as quickly as possible. Such a program is designed to reduce the amount of time it takes for the “most ready” (defined below) students to prepare for the GED by focusing instruction on essential GED skills, combining subject areas where these essential skills overlap, and stressing the need for test-taking strategies and practice. By combining acquisition of content information with efforts to make students aware of the strategies for answering the various types of GED test questions and practice of techniques for coming up with correct answers, providers may be able to more quickly prepare their “most ready” students to pass the GED.

Overview—Intensive GED Program Framework: Figure 1

Introduction

This preliminary Intensive GED Preparation Program Framework is intended to be an add-on that can complement existing adult literacy and GED programs, as it targets only those students who score above the eighth grade level in reading and math on the Test of Adult Basic Education (TABE). Students who qualify based on their TABE scores would take the GED Practice Test¹ to determine placement in the program. In general, we expect that this program would benefit students with scores of at least 30 on all areas of the Practice GED and a total score of at least 200. Providers may decide to provide targeted tutoring and/or re-testing opportunities to students who miss the required scores by slight margins.

The initial framework developed for consideration consists of a two-course math sequence, a two-course writing sequence, a three-course sequence in test-taking skills, and half-day workshops on science and social studies topics. As we have worked out sample schedules, it appears that only two teachers would be required to administer the entire program and that students could complete it in 6-14 weeks (24 hours per week), depending on their initial placement. If we are successful, students would then be fully prepared to pass the GED exam.

Math, Writing and Test-Taking Skills Sequences

Each course in the math, writing, and test-taking skills sequences would include 40 hours of instruction. Students may take all courses in the three sequences or, if their scores are high enough, take only those courses they require to prepare for the GED. All students would take the final course in the test-taking skills sequence, Test-Taking Strategies, at or near the end of their program participation. Tables on the following page present tentative guidelines for determining student starting points in the math, writing, and test-taking skills sequences.

¹ The Practice GED test is composed of 6 sections. Each section’s raw score must be converted to an “Estimated GED Standard Score” using GED Conversion Tables. Students need a minimum of 30 to pass each section and a total of 225 to pass the entire test.

We propose that students scoring between 30 and 40 on the following areas of the Practice GED test would start with the introductory course and complete all courses in the sequence.

If students score between 30 and 40 on...	they start with...
Writing Skills I	Writing Skills: Sentences and Paragraphs
Science, Social Studies, or Literature & Arts	Reading Skills
Science and Social Studies (score over 40 on Literature and Arts)	Reading Pictures
Math	Math Formulas 1

Students scoring above 40 on the following areas of the Practice GED test could skip the introductory course in the sequence. They would be placed as follows:

If students score above 40 ...	they start with...
Writing Skills I	Essay Writing Skills
Science, Social Studies, and Literature & Arts	Test-Taking Strategies
Math	Math Formulas 2

Science and Social Studies Workshops

The thirteen four-hour Science and Social Studies Workshops (seven in Science and six in Social Studies) cover the major topics included on the GED. Students who score between 30 and 40 on either the Science or Social Studies area of the GED Practice Test would take three workshops in that subject; students who score above 40 on either test would take two. Because we anticipate that students would take, at most, three workshops in each Science and Social Studies, they could choose among the topics according to their interests.

Incorporating Computer Software

The framework, as conceptualized here, can be delivered entirely by teachers in a classroom setting. In fact, as outlined later, we believe some parts of the curriculum can only be effectively delivered in this manner. However, because computer software does a good job in certain areas, we have adapted the original model and developed suggestions for supplementing or substituting use of software packages for many portions. Thus, providers that have no computers, a few computers, a whole computer lab, and that already have computer software, may adapt this framework to meet their needs and resources.

Future Development

If there is interest in further development of this framework and implementation of the resulting program, we would do so in ongoing consultation with service providers. We envision the possible development of a set of course materials, clear procedures for individualizing student schedules, and a variety of scheduling options to meet the needs of individual providers implementing the program.

Components of the Proposed Intensive GED Preparation Program

Components Framework: Figure 2²

As indicated earlier, The initial framework developed for consideration consists of a two-course writing sequence, a two-course math sequence, a three-course sequence in test-taking skills, and half-day workshops on science and social studies topics.

Writing (40-80 hours)

The writing component is made up of two courses. The first, Writing Skills: Sentences and Paragraphs, covers sentence structure, usage, mechanics, and paragraph structure. The second course, Essay Writing Skills, teaches students how to write introductions, supporting paragraphs, conclusions, and how to respond to topics quickly.

The Writing Skills portion of the GED test is divided into two tests, Writing Skills I and the Essay, the scores of which are averaged together. Because these two test areas cover very different skills, we included two separate, consecutive courses for writing in the framework. However, this framework uses only the Writing Skills I score for placement because virtually all students need to brush up on essay writing skills. Those rare students with high scores in Writing Skills I who also write an exceptional essay may place out of the writing component altogether.

Test-Taking (40-120 hours)

The test-taking component is made up of three courses: Reading Skills, Reading Pictures, and Test-Taking Strategies. The course sequence teaches skills necessary for success in the reading-intensive portions of the GED test: Science, Social Studies, and Literature & Arts.

The Reading Skills course teaches various types of texts to determine their purpose, structure, and method of communication. The Reading Skills course also covers the basic thinking skills on the GED test—analysis, inference, application, evaluation, etc.,—so students can understand what the test wants them to do with what they read.

The Reading Pictures course covers those pictorial reading skills required for the Science and Social Studies portions of the GED. Students with low scores in these two areas need to understand how to get information from a variety of sources such as charts, graphs, maps and political cartoons to pick up additional points.

The Test-Taking Strategies course emphasizes strategies for recognizing and responding to question and answer format types common to all portions of the GED test. Students will study and practice question and answer formats and timing strategies. In the process, students will learn to see that tests use predicable patterns that can be identified, and, with practice, can be successfully applied even when the content material is unfamiliar.

² Each course in the Math, Writing, and Test-Taking Skills Sequences consists of 40 hours of instruction.

Math (40-80 hours)

Each GED math test comes with a page of formulas that students are expected to know and use appropriately during the course of the test. This formula sheet will be the basis for both math courses. The courses will emphasize only concepts relevant for using this sheet effectively. Math Formulas 1 will cover fraction, decimal, and percent formulas, while Math Formulas 2 will cover algebra and geometry formulas. Students who have not mastered the basic math concepts would require tutoring support and additional required homework to progress through the math courses at the pace required in this intensive framework.

Science and Social Studies Workshops (Four hours each)

Students who have limited world knowledge would be able to pick up test points and build confidence if they were exposed to some of the content material in Science and Social Studies they are likely to encounter on the GED. Four-hour workshops, each on a different content area and each accompanied by additional study material, would familiarize students with core concepts and commonly used vocabulary across a broad spectrum of subjects. Students could elect to take whichever workshops they choose, just as long as they take the appropriate number determined by their Practice GED test scores.

To cover the major topics on the GED exam, workshops in Science would include atoms, forces, molecules, evolution, plant systems, human systems, and earth science, while Social Studies Workshops would include political science, behavioral science, economics, and three in U.S. History: The New Nation, The Industrial Revolution, and The Atomic Age.

Courses Recommended for Computer Substitution: Figure 3

Writing Skills and Reading Pictures are the two courses that could be substituted with competent computer software. Both courses require that students learn simple, measurable skills that can be taught completely in one sitting. Quality basic skills or GED software that carefully take students through a learning process step by step could be quite effective for this purpose. Using computers in this way can have the added benefits of enabling students to become familiar with computers and reducing the number of face-to-face teaching hours.

As noted above, computer software may supplement or substitute for material in some Science and Social Studies Workshop.

NOTE: While use of computer software may supplement, or even substitute for some parts of the program, computers labs should be staffed at all times. In order to succeed, students need assistance when technical difficulties arise, support in understanding concepts when the computer software's explanations do not prove sufficient, and monitoring and feedback on their progress.

Courses Recommended for Computer Supplement: Figure 4

Basic skills and GED math software packages are available that could enrich the Math Formulas 1 and 2 courses. Students can use math software to review concepts and gain additional practice with specific types of math problems. However, computer software should not take over the teaching of math concepts since lack of understanding in one area can effect understanding in all the others. For example, if a student doesn't fully understand fractions but can figure out how to do some operations, sooner or later the lack of understanding of the basic concept will interfere in decimals, percents, algebra, geometry, etc. Thus, teachers must be involved in checking to make sure students understand the basic concepts. Computers are best used for review of classroom learning in math.

There is also interesting and innovative basic skills software that could supplement the material in or substitute for some of the Science and Social Studies Workshops. (See Figure 7 for suggestions).

Mandatory Teacher-Based Courses: Figure 5

Three courses are best taught by a teacher in a classroom setting: Reading Skills, Essay Writing Skills, and Test-Taking Strategies. Reading skills concepts are by definition cross-disciplinary and computer software offers instruction and practice only for individual subject areas. Students need subjective evaluation and discussion to build understanding and skill in essay writing. And, computer software does not include material on test-taking strategies.

Computer Based Intensive GED Program: Figure 6

This option assumes that training providers have a computer lab outfitted with GED software. Classroom components are integrated with computer software in the following ways:

Writing

- Students who score between 30 and 40 on the Writing Skills portion of the GED software work through that portion of the software on the computer. After finishing, they take Essay Skills Writing in the classroom.
- Students who score 40 or above on the Writing Skills I portion of the GED are placed in the Essay Skills Writing course. Computer work in the two writing skills portions is optional.

NOTE: Essay writing on the computer may be inappropriate for preparing students to take the GED exam. The GED essay section is a 45-minute handwritten test, while GED software requires that students have good typing skills. Hence, writing essays on the computer could be quite counterproductive for students who are not adept typists.

Test-taking

- Students who score between 30 and 40 on any of the reading intensive GED tests, Science, Social Studies, or Literature & Arts, are placed into the Reading Skills Course. Once they complete that course, students work through these subjects on the computer.
- Students who score above 40 on all tests can go straight to work on the computer for review.
- It is recommended that all students take Test-Taking Strategies right before they take their GED tests.

Math

- Students are placed into the Formula 1 and 2 classes.
- Students are introduced to math concepts in the classroom and practice them on the computer.

Scheduling Options:

In order to estimate how long it would take for students to complete the Intensive GED Preparation Program, GED service providers would need to determine teacher availability and the number of hours they have available for the program per week.

More instructional hours per week will lead to a more “intensive” program.

Our estimates are based on the assumptions that each course in the Math, Writing and Test-Taking Skills sequences is 40 hours long, that students need to take anywhere from 3 to 7 courses total from these sequences, and that two teachers are available. The schedules below are rough estimate. Each provider implementing the Intensive GED Preparation Program would develop its own schedule taking into account its available resources and its students’ needs.

Intensive GED Preparation Program: With or Without Computer Supplements and/or Substitutions

14-hour week

- With ten hours of instruction per week, a student can finish one course in one month; Science and Social Studies Workshops require an additional 4 hours each; students would finish in 12-28 weeks.

24-hour week

- With twenty hours of instruction per week, a student can finish two courses a month; Science and Social Studies Workshops require an additional 4 hours each; students would finish in 6-14 weeks.

Computer-Based Intensive GED Program:

Factors that affect the time it would take to finish a computer-based program include:

- Science or Social Studies Workshop material is provided by computer programs instead of teachers and the intensity will vary according to student time constraints and computer laboratory hours and capacity;
- The maximum number of classroom hours required due to courses which must be provided by teachers in a classroom setting is 160;
- Computer laboratory hours might allow students more study time per week.

SURVEY OF BASIC SKILLS AND GED PREPARATION COMPUTER SOFTWARE

Overview

Many GED service providers have expressed interest in including software in their programs as a way of motivating student learning and freeing up teachers for individualized instruction. Initial evaluations of GED and basic skills software suggest that GED preparation software runs the gamut in its ability to teach essential GED skills. Some software packages teach material better than others because they:

- break concepts down into clear parts and teach one part at a time;
- require high levels of student input;
- provide meaningful feedback for right and wrong answers;
- use a varied format (i.e., engage students through different visual and auditory stimuli).

In general, basic skills software packages offer more innovative and varied approaches to teaching content material than do most GED software packages. However, by definition, the basic skills software does not address many essential GED-specific skills.

Most GED software packages present material in the same format. Usually, students:

- read through explanations of specific concepts;
- answer a variety of test questions;
- receive feedback on right and wrong answers based on the original explanation;
- take a formal test on the subject.

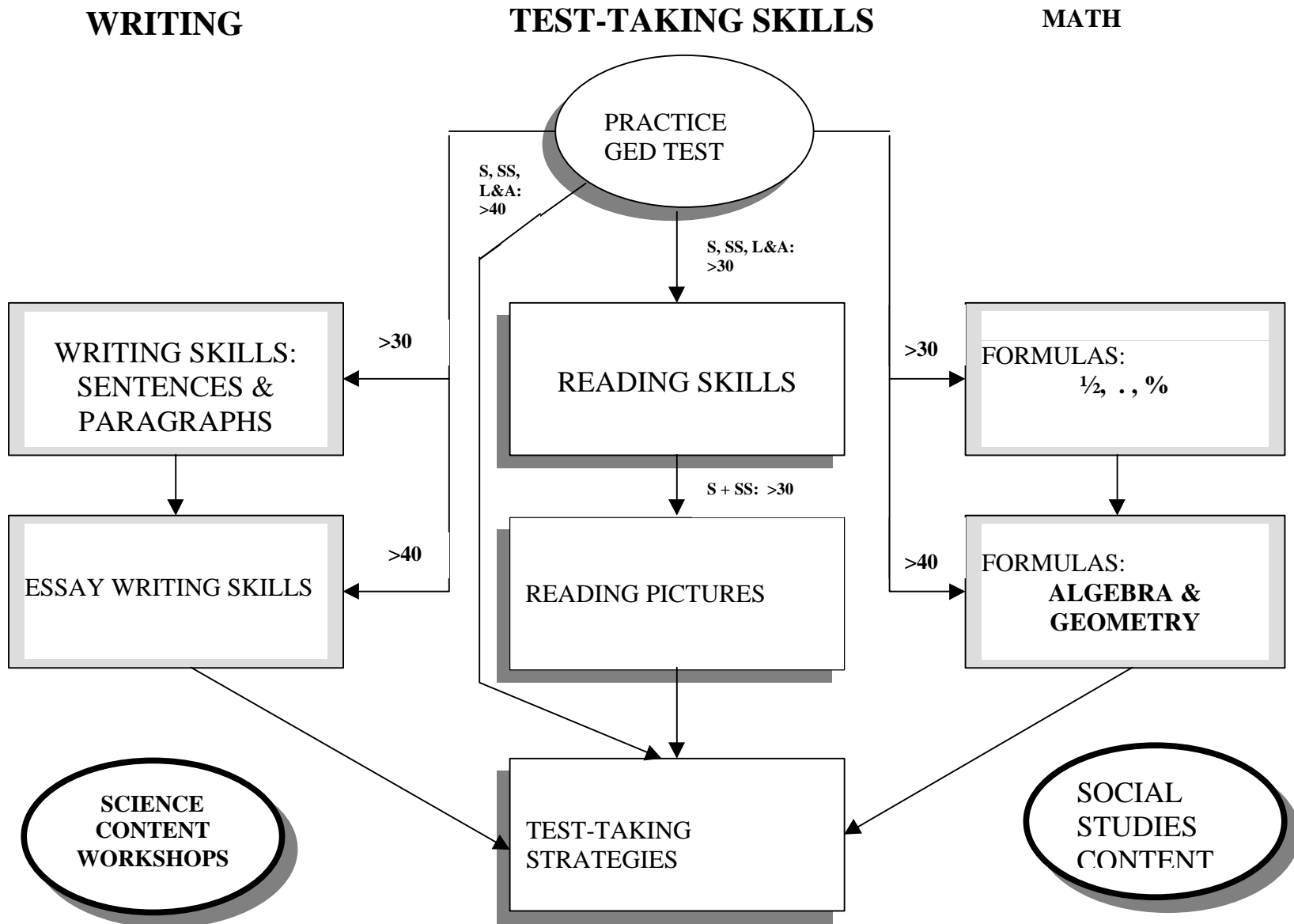
Because this format does not vary according to the complexity of the concept presented, the packages are far more effective at teaching some skills, i.e. discreet measurable ones like punctuation or math, than larger more subjective critical thinking skills.

Three basic findings resulted from our survey of basic skills and GED software:

- no single software program can be relied on to teach all GED materials;
- innovative basic skills software can be incorporated into GED preparation and may prove more useful than GED software for teaching some skills;
- skills such as critical thinking skills can only be taught by a teacher in a classroom situation.

The information on the following pages summarizes the findings of our survey of basic skills and GED preparation.

FIGURE 1: INTENSIVE GED PREPARATION PROGRAM FRAMEWORK



S = Science, SS = Social Studies, L&A = Literature & Arts

FIGURE 2: COURSE DESCRIPTIONS

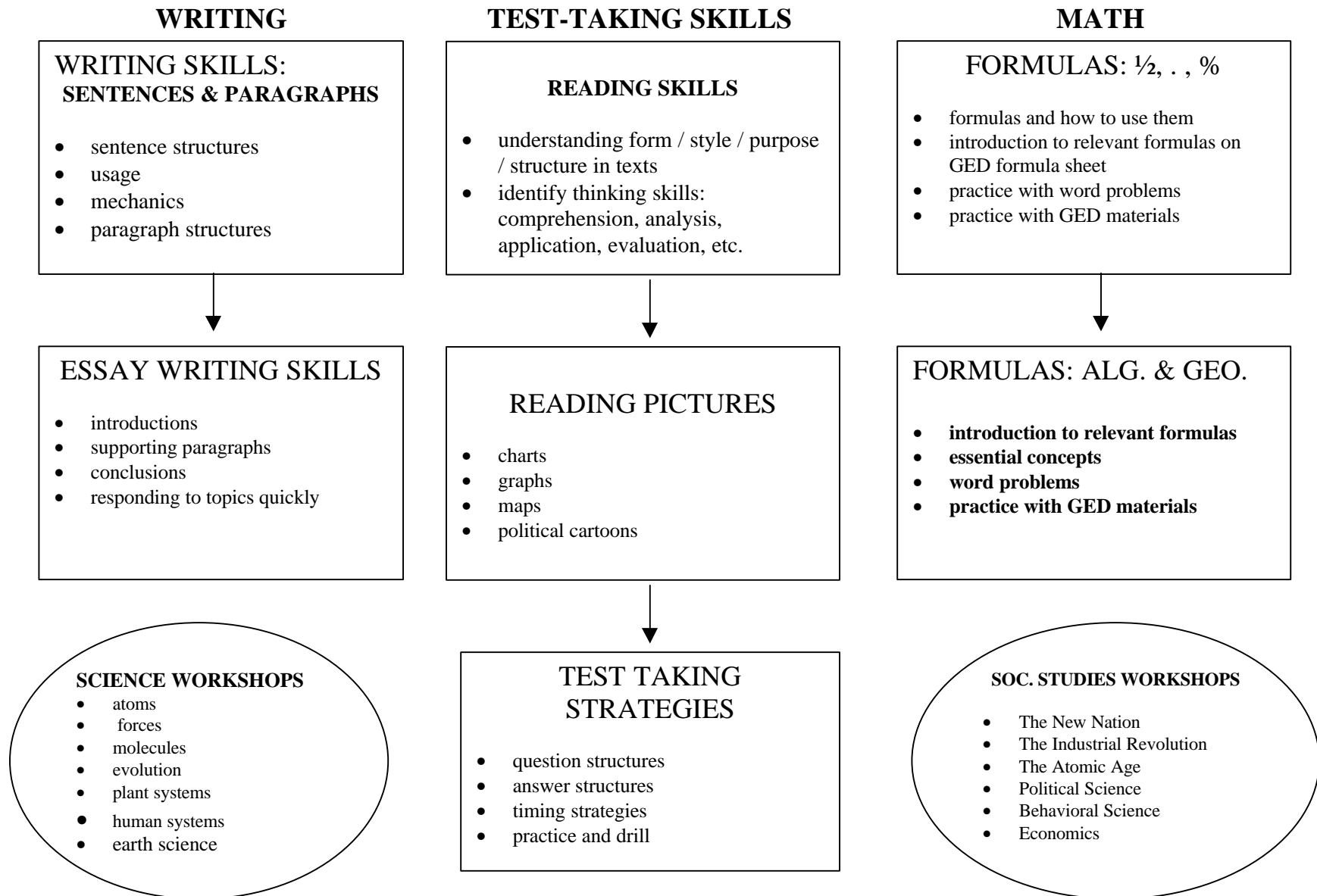
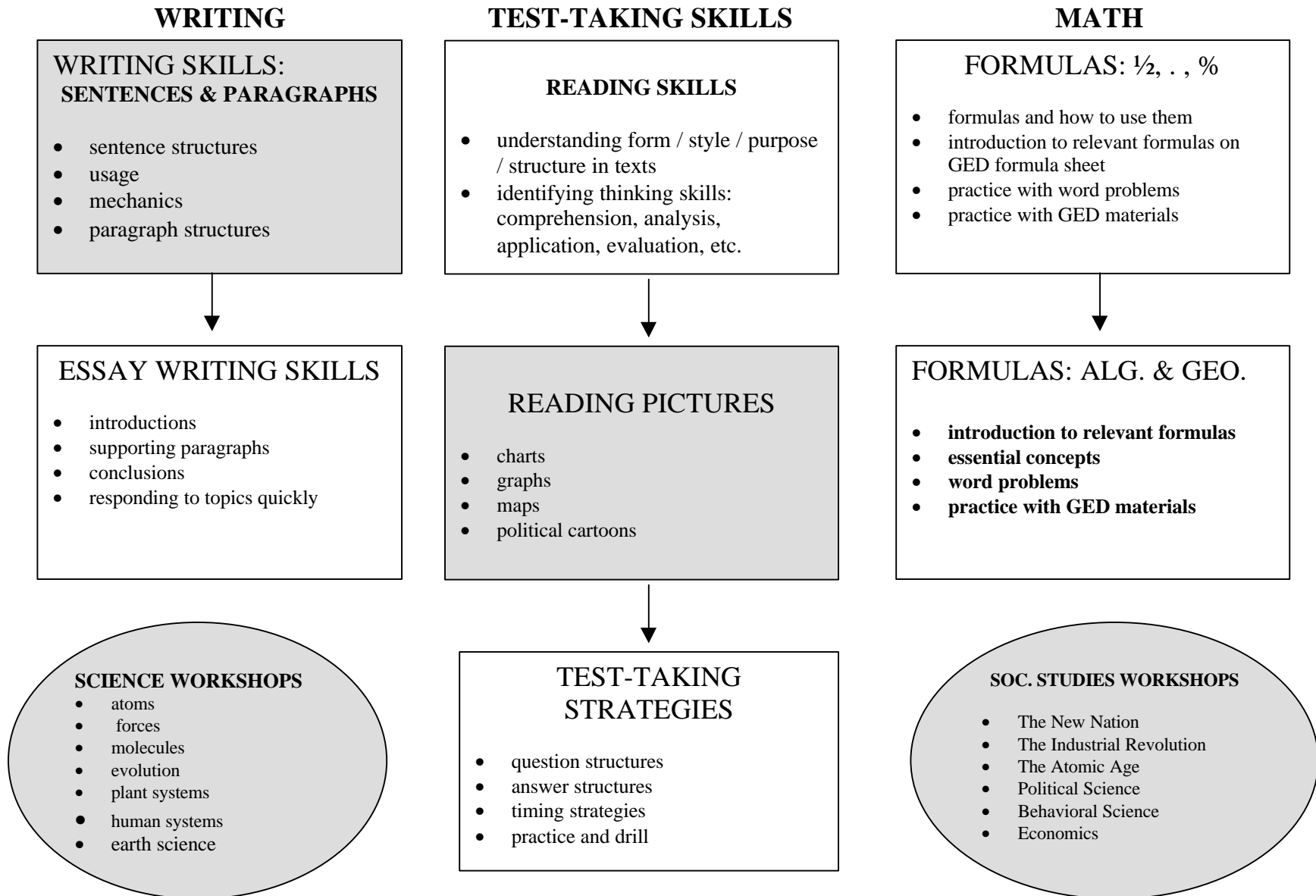
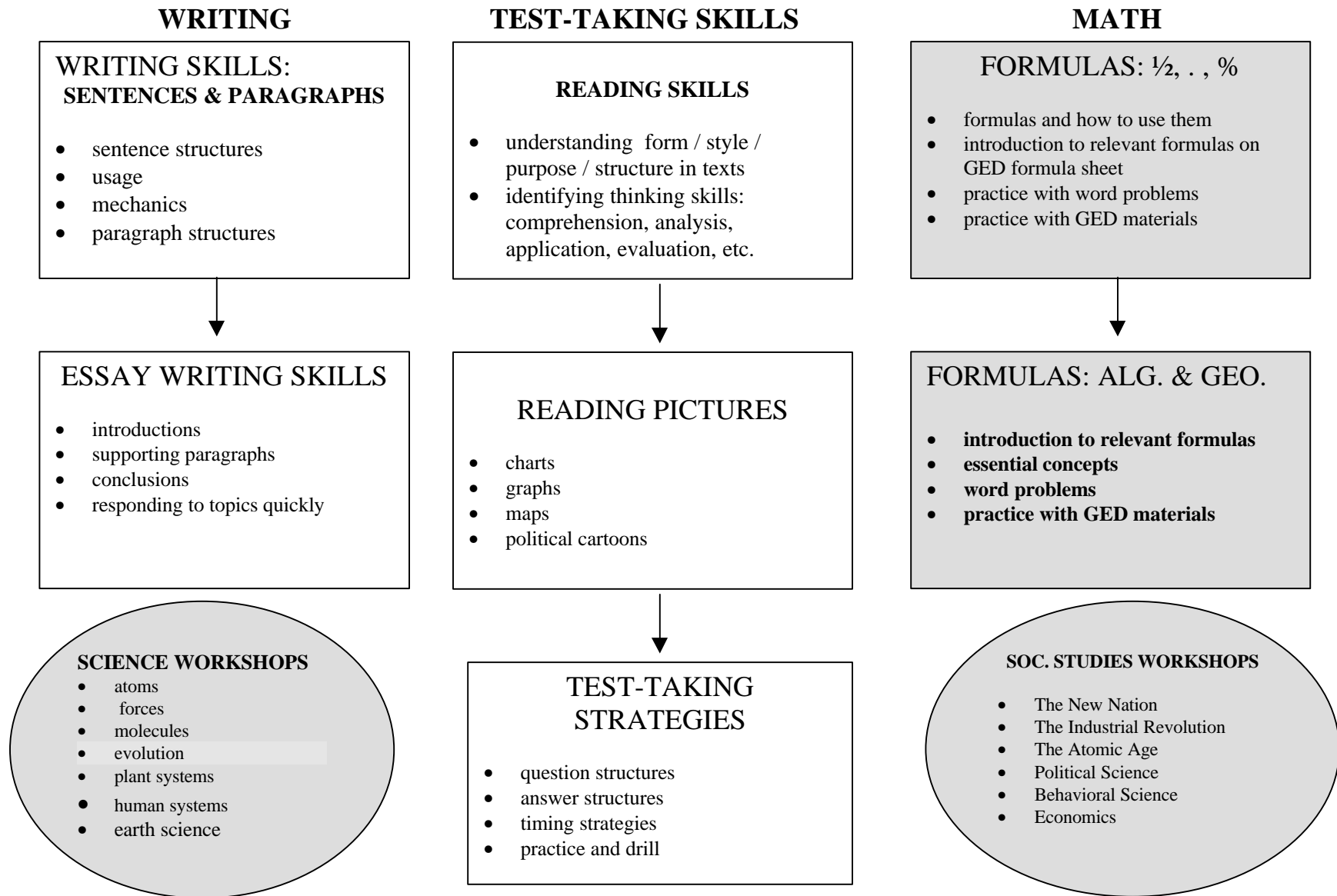


Figure 3: COURSES RECOMMENDED FOR COMPUTER SUBSTITUTION



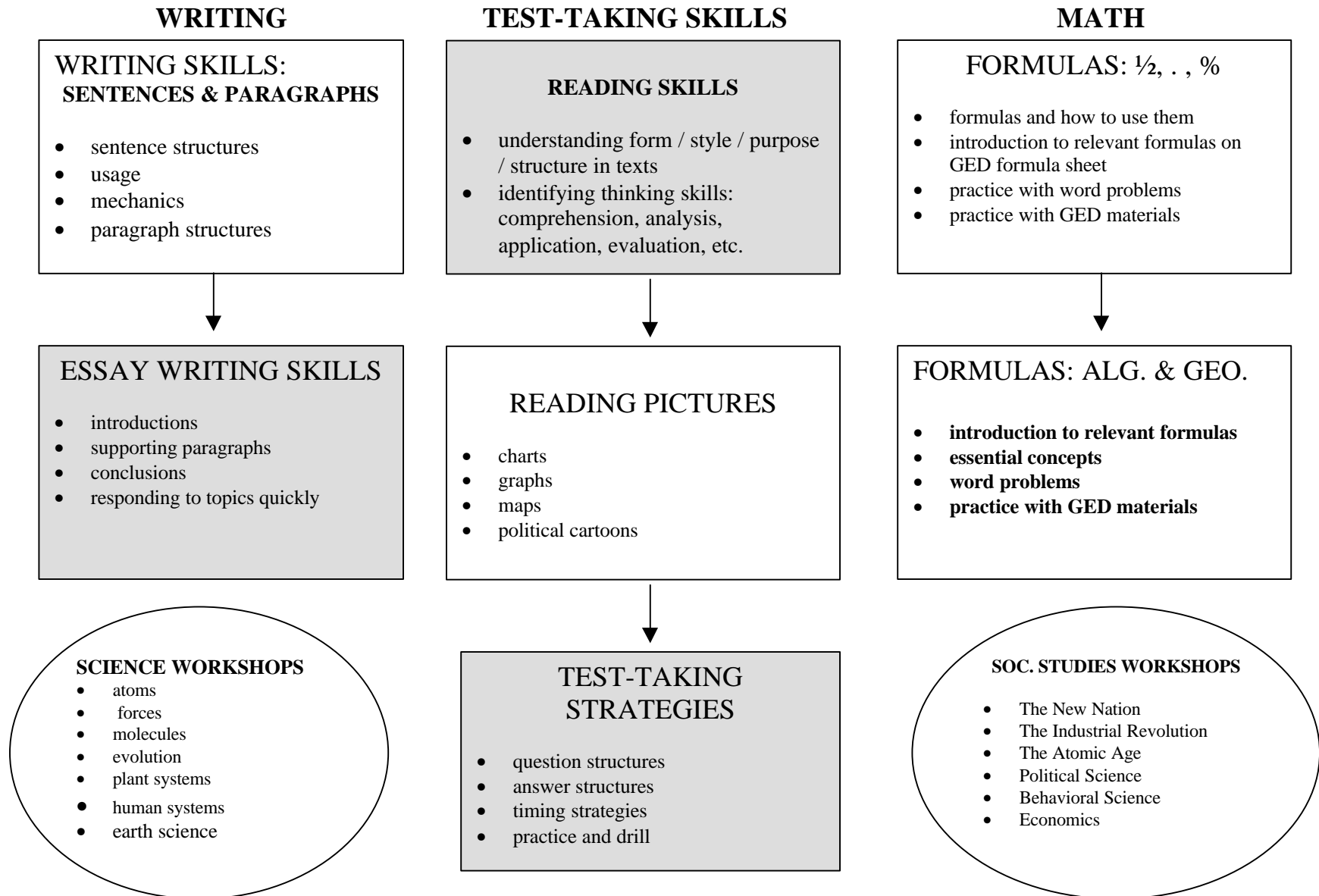
Note: Shaded courses / workshops could be substituted with computer software.

Figure 4: COURSES RECOMMENDED FOR COMPUTER SUPPLEMENTS



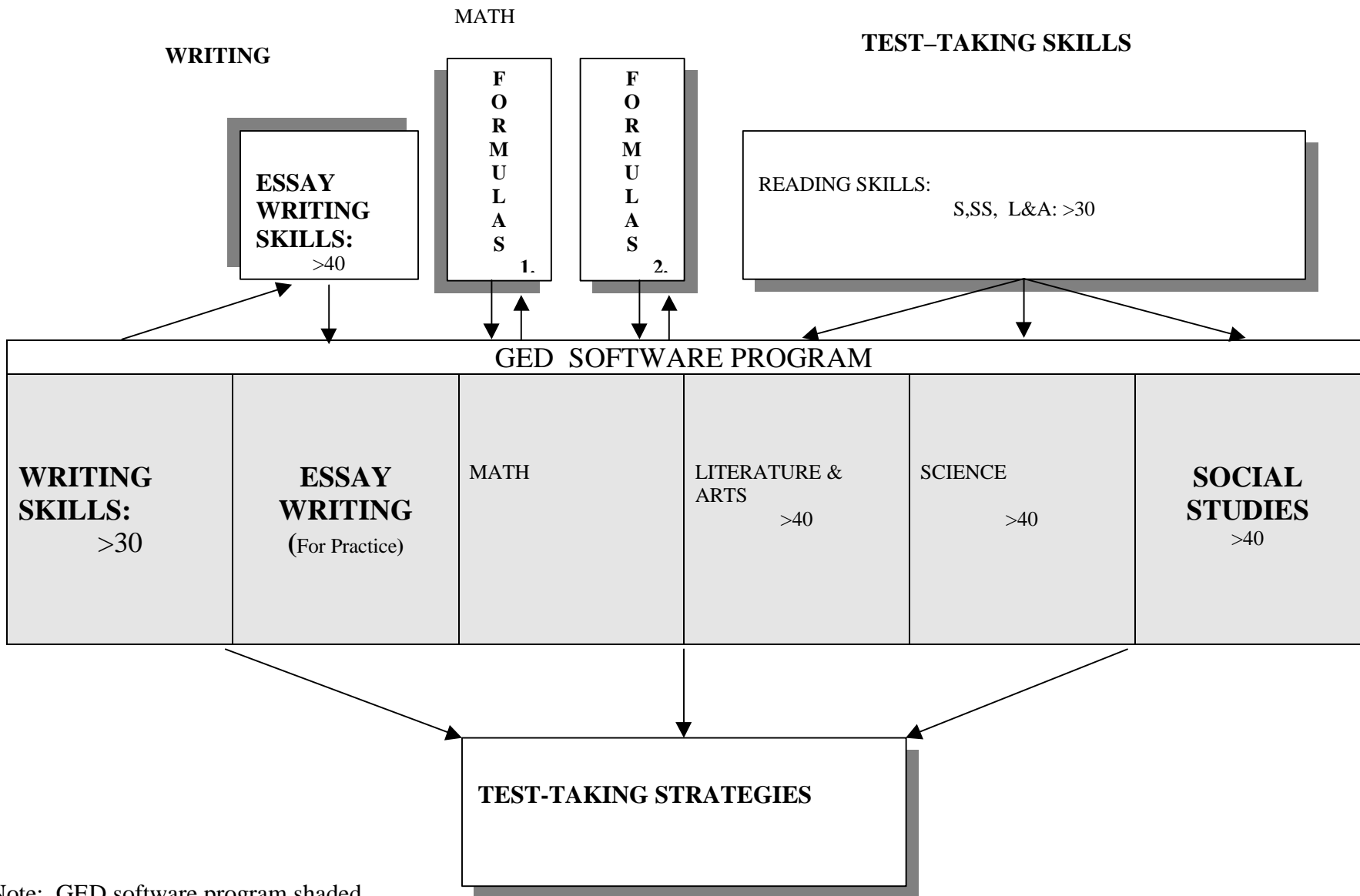
Note: Shaded courses / workshops could be supplemented with computer software.

Figure 5: TEACHER-BASED COURSES



Note: Shaded courses must be teacher-based.

FIGURE 6: COMPUTER-BASED INTENSIVE GED PREPARATION PROGRAM FRAMEWORK



Note: GED software program shaded.

FIGURE 7: GED & BASIC SKILLS SOFTWARE SURVEY SUMMARIES²

SOFTWARE NAME	TYPE	STRENGTHS	WEAKNESSES	RECOMMENDED	COST (Per Station)	PHONE # (Contact)
Steck-Vaughn GED 2001	GED	Very difficult. OK for review.	No teaching elements.	No.	\$1,195.00	800-531-5015
Contemporary Interactive	GED	Identifies critical thinking skills.	Concepts presented not taught.	Yes, with considerable teacher support.	\$2,985.00	630-665-7991 (Harvey Kamin)
Glencoe	GED	Identifies critical thinking skills; breaks skills down; goes step- by-step.	Essay, math.	Yes.	\$1,400.00	847-891-9231 (Marla Jones)
GED Advantage	GED	Standard GED format.	Concepts presented, not taught; DOS based.	No.	\$995.00	800-328-2560

² Special thanks to Judith Diamond from The Center and Caren Van Slyke from Skills for Tomorrow for materials and guidance.

Plato	Basic Skills / GED	Excellent teaching material; can customize from large list of courseware.	GED program is collection of software from general list.	Yes – particularly to substitute or supplement.	\$2,000.00 – GED package	773-783-9468 (Doug Johnson)
Computer Curriculum Corp.	Basic Skills	Interesting videos, emphasizes problem-solving.	Requires lots of teacher involvement.	Yes.	\$195.00	800-242-7117 ex.3848 (Dierdre O'Connor)
Wasatch: Basics	Basic Skills	Interdisciplinary real life problems; videos.	Less targeted to specific, single topic skills.	Yes.	\$229.00 per unit	800-877-2848
Skillsbank	Basic Skills	Clear teaching style.	Children's graphics.	Yes.	\$1,245.00	800-725-8516 (David Hewes)
A+: American Education Corp.	Basic Skills	GED-like format; links to internet; good for research.	Some sections much stronger than others.	Yes.	\$149 per section, 8 sections	800-222-2811
Others to check out:						
Learning 2000	GED	Videos introductions.				
Cliff Notes	GED					
Josten's	GED					
CCC: GED	GED					(As above).