8

Attachment 8

HIGH SCHOOL ASSESSMENT

SKILLS

FOR SUCCESS

CORE LEARNING GOALS

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HIGH SCHOOL ASSESSMENT
SKILLS FOR SUCCESS
CORE LEARNING GOALS

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PREFACE

The Maryland School Performance Program began in 1989 in response to the report of the Governor's Commission on School Performance and reflects a major strategy for implementing school reform to improve educational opportunity and achievement by each student enrolled in Maryland's public schools. The high school assessment represents the final stage of the Maryland School Performance Assessment Program, which began with State-level assessments in grades 3, 5, and 8.

This document reflects the work of five content teams, appointed by the State Superintendent of Schools, to define Core Learning Goals that will serve as the basis of the assessment. This work is a direct outgrowth of the State Board of Education's Performance-Based Graduation Requirements Task Force.

The outcomes were prepared by a representative group of educators, recognized for their leadership in the fields of English, mathematics, social studies, and science. The Skills for Success component represents a cooperative effort between leading educators and the Maryland Business Round Table. The Core Learning Goals are meant to reflect the essential skills and knowledge that should be expected of Maryland high school students in the 21st century. There is no assumption that the State's high schools currently have the capacity to deliver these goals. Rather, if the goals are adopted, an infrastructure of support and professional development activities, including human and fiscal resources, will be necessary to implement these new standards. Each of the five documents is available upon request to the address listed below.

It is important to note that the Core Learning Goals for Skills For Success are meant to be part of each of the other four content areas. As such they will not be assessed by their own test, but rather within each of the four content areas. The test materials in each area will be developed in such a way that mastery of the Skills for Success is essential to high performance. Hence, you will notice that each of the documents has a section related to Skills For Success. It is also our intent that all teachers, not just those who are teaching English, mathematics, social studies, and science, will be responsible for Skills for Success. It will be important, therefore, that the Skills for Success document is shared with all high school teachers. The graphic that follows is intended to show the relationship between and among the content area and Skills for Success.

The content area information is provided as draft material representing the best thinking of the content teams for public consideration by educators and the public at large. The Content Team membership list is included as an appendix. Individuals and organizations may feel free to duplicate and disseminate the document as appropriate. It is also assumed that prior to adoption by the State Board of Education, or to curriculum redesign occurring at the local school system level, these documents should be shared with the appropriate departments in each high school in Maryland. Information should be gathered as to how departments are interpreting the goals, in order that the content teams may review the diversity of interpretations. Upon review of the anticipated diversity of responses, each Core Learning Goals Content Team would identify the level of specificity for the goals that clearly identifies the intent. At that point the outcomes would be published in the *Maryland Register* in preparation for State Board adoption.

Responses, reactions, and comments may be sent by mail or by fax to:

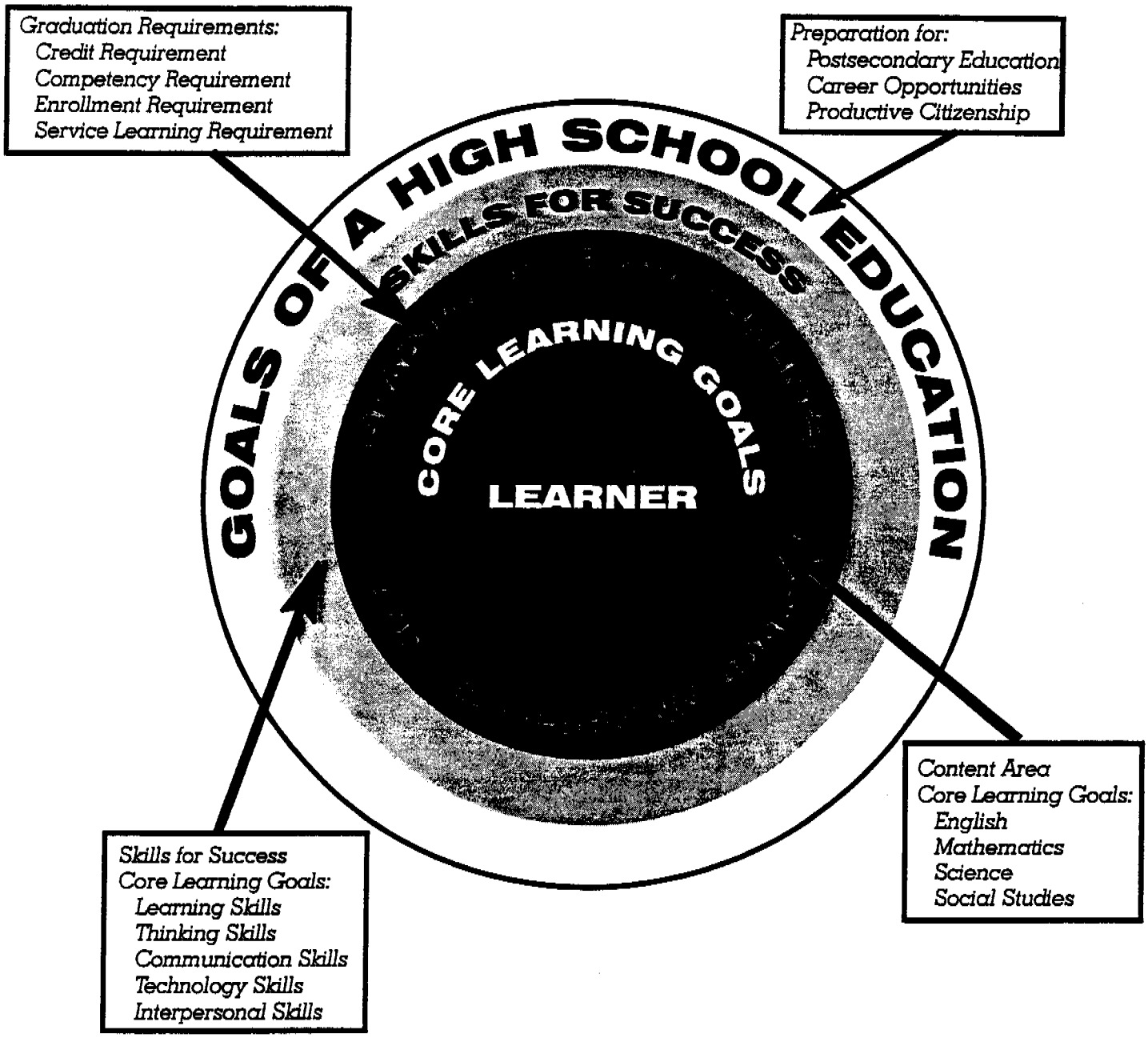
Robert E. Gabrys, Chair
High School Assessment Task Force
Maryland State Department of Education
200 West Baltimore Street
Baltimore, Maryland 21201
Fax: (410) 333-3867

Addresses are provided for each of the Content Team members at the end of the document. Any individual should feel free to discuss issues with these individuals. MSDE staff in the content area are also available for explanation of the Core Learning Goal documents.

Thank you in advance for your interest and willingness to aid in the development of high-quality expectations for Maryland high school students prior to graduation.

July 3, 1995
preface.reg

CONTEXT OF THE HIGH SCHOOL ASSESSMENT



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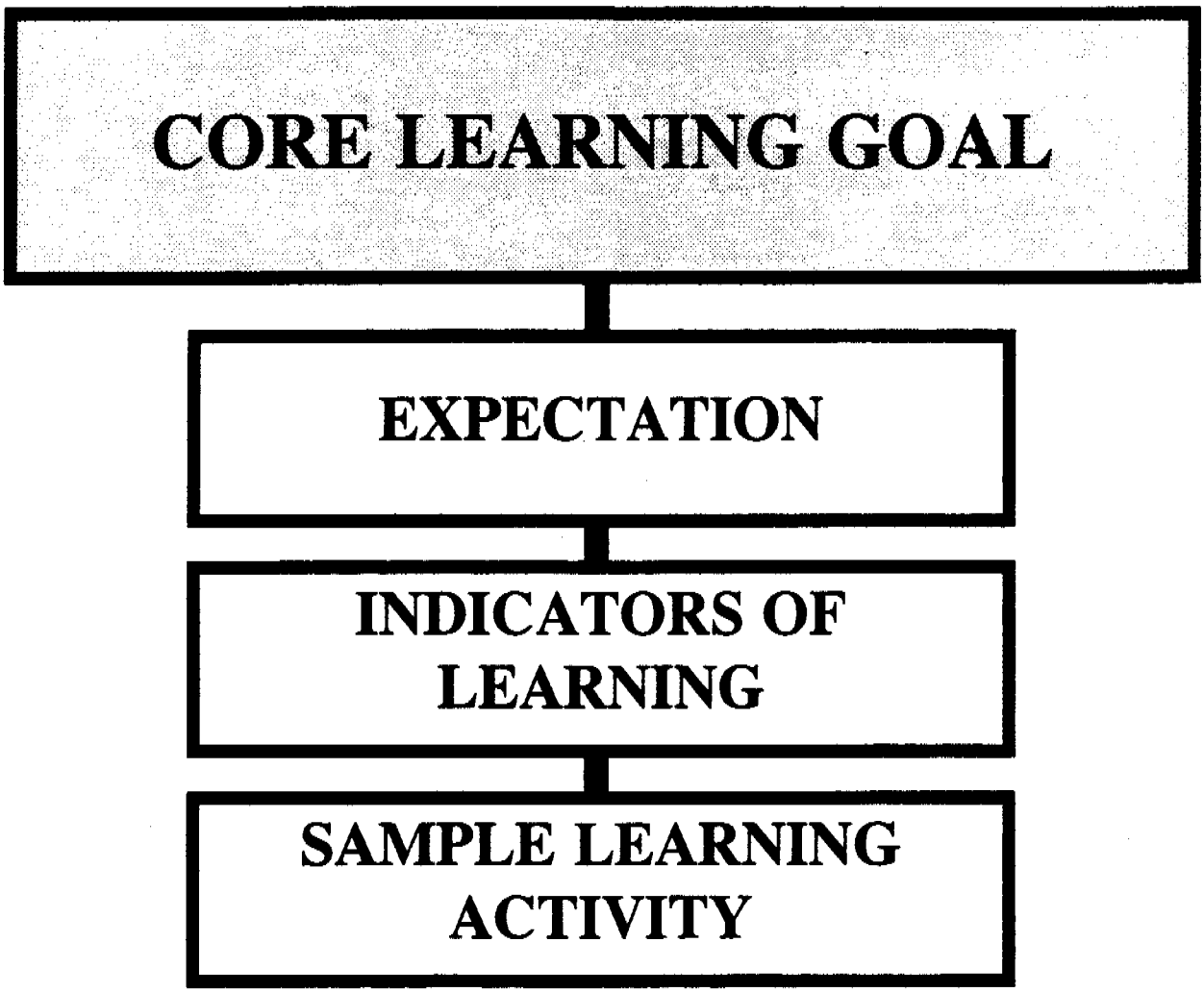
SKILLS FOR SUCCESS



SKILLS FOR SUCCESS
CORE LEARNING GOALS

Introduction/Rationale

What do high school students need to learn in addition to the knowledge and skills identified in required subjects like mathematics, English, science, and social studies?

Maryland's high school graduates will face a very different world in the 21st century. Gone will be many of the jobs that promised a lifetime of employment. Many businesses and industries expect jobs to appear and disappear rapidly as the demand for new products and services comes and goes and as competition increases in a global economy. Change will be the norm rather than the exception. Lifelong learning habits, flexibility, and adaptability will define those high school graduates who remain gainfully employed or successful in managing their own businesses in the next century.

Competition for jobs with possibilities for advancement will also increase, and employers will demand more knowledge and skills for entry level positions than ever before. Gone are the days when a seventh- or eighth-grade education or even a high school diploma and a strong back guaranteed access to a good job. Basic skills will remain important, and so will knowledge and skills in English, mathematics, social studies, and science. But employers want more than that. Employers from around the nation have been nearly unanimous for more than a decade in asking high schools to produce graduates who:

- Know <u>how</u> to learn and continue to learn throughout their lives,
- Work effectively with others,
- Adapt to and use constantly changing technologies effectively,
- Solve problems routinely,
- Think clearly and creatively, and
- Communicate effectively.

How do these skills identified by employers relate to required skills in mathematics, English, science, and social studies?

The skills employers want clearly represent a different focus than traditional academic skills taught in high school. First, they are very general rather than subject-specific. They apply equally well to any subject. One can communicate effectively, for example, with or about mathematics as well as science or English literature. In this sense, these workplace skills represent real-world applications of academic knowledge and skills. They define the kinds of things employers want high school graduates to be able to do with academic knowledge and skills. For instance, mathematics can be used to solve problems, among other things; English is a tool for thinking and communication; and so forth. These skills provide an essential frame for the kinds of applications of academic knowledge and skills valued by employers.

Besides providing a frame or context for the use of academic knowledge and skills, the skills employers want also provide the tools for learning in any subject or skill area. Knowing how to learn, for example, is vital to learning in any new or difficult learning situation. Technology is, among other things, a tool for learning; it provides access to information, helps to manage it, and makes it easier to analyze, represent, and convey that information.

This sense of the Skills for Success as a foundation for learning carries them far beyond the purview of "workplace readiness skills." These skills are just as essential in any post-secondary learning experience, whether it is formal or on-the-job training opportunities or higher education. Standards will rise in colleges and universities in the 21st century in a continuous effort to keep America competitive in an international economy. High school graduates will compete for fewer positions in colleges and universities. Once there, they will find courses more demanding. They must have learning, thinking, and communication tools to succeed in higher education and in their private and social lives. The Skills for Success, then, are not addenda to the core learning goals in the academic subjects. Rather, they are the core of the core.

Who developed Maryland's Skills for Success, what sources did they use, and how did they evaluate the product?

Maryland's Skills for Success are a product of a successful collaboration during 1994 between the Maryland Business Roundtable and the Maryland State Department of Education. A team of more than 40 members (see Appendix) representing business, labor, local school systems, higher education, parents, and government in Maryland developed the skills.

The team began with an extensive review of similar sets of skills developed by other groups, including:

- The National Academy of Sciences,
- The American Society for Training and Development,
- The U.S. Department of Labor (the SCANS report), and
- The National Center on Education and the Economy.

The review extended to skill sets identified by other states like New York, Michigan, and Massachusetts, and by local school systems in the State of Maryland. Analyses of workplace skills conducted by research centers like the National Center for Research on Evaluation, Standards, and Student Testing (CRESST) were also used.

The Maryland team wrote a draft set of skills and sought feedback from the many organizations they represent throughout the state. The skills were also presented to high school student groups around the state, and written student comments were collected. This review process in the State of Maryland led to continuous cycles of review and revision over a period of several months. All revisions were produced and approved by the team in many work sessions. In other words, this was a working committee rather than just a consulting group.

When the team was satisfied that the draft set of skills represented a working consensus, they developed a detailed questionnaire and sent the skills to 42 experts from around the nation for review and evaluation. Reviewers included the American Federation of Teachers who are currently involved in a systematic review of graduation requirements around the world, and others like the Council of Chief State School Officers and the National Center for Leadership in Education who are regularly involved in tracking efforts to establish new high school graduation requirements. Principal authors of workplace skills developed by national organizations were consulted. Other evaluators included employers from businesses known for their excellence in planning and management, representatives of higher education from exemplary universities, and national research centers.

This extensive evaluation process led to many refinements in Maryland's Skills for Success but no major changes in direction. In fact, reviewers everywhere were overwhelmingly supportive of Maryland's Skills for Success. Some of them called it the best synthesis and the best thinking on the subject in America.

What specific skills came out of this evaluation and revision process, and how are they organized?

There are five categories of skills in Maryland's Skills for Success:

1. Learning Skills
2. Thinking Skills
3. Communication Skills
4. Technology Skills
5. Interpersonal Skills

In the pages that follow, each category is stated as a single Core Learning Goal. For example, Learning Skills are represented by the following goal: *The student will plan, monitor, and evaluate his or her own learning experiences.* The intent of this goal is to get students to take charge of their own learning by learning how to learn—how to plan for success, how to anticipate difficulties and solve them, how to decide how well they achieved their own learning goals, and how to avoid the same mistakes in the future. This is the lifeblood of learning in any subject and in any situation.

Each Core Learning Goal is represented in turn by three to five Expectations that indicate what students will be able to do if they have achieved the goal. Under Thinking Skills, for example, students are expected to be able to think critically: *The student will evaluate information, issues, and positions critically (Expectation 2.2).* The ability to judge the relevance, usefulness, and validity of information for any purpose is vital to success in school, on the job, and in life as a responsible citizen.

In the pages that follow, each Expectation is illustrated in an example of a learning situation in high school. The examples show what might be going on in a school where students are learning and using Maryland's Skills for Success. One example focuses on a project in a specific subject like social studies. Another follows a student planning her high school program and managing difficulties over four years of high school—learning to learn in a broad perspective. Another example shows the role of Skills for Success in an interdisciplinary learning environment. In other words, these examples deliberately portray the role of Skills for Success in a wide variety of learning situations in school. It is important to recognize, however, that these are only examples of what the Skills for Success might look like in high schools. They are not lesson plans; they are not curriculum guides; they are not "models"; and they do not tell teachers how to teach. The choice of instructional materials, decisions about how to organize instruction, and creative methods of teaching—all of these decisions belong to schools and teachers, not the state.

Where will the Skills for Success be taught in high school, and how will anyone know whether or not students have learned them?

There will be no separate course in Skills for Success in high school, and there will be no separate test on Skills for Success. These skills do not exist in isolation from the content or situations in which they are applied. People do not learn or think or communicate without something to learn, think, or communicate about. Therefore, the Skills for Success must be taught and assessed in courses covering required learning goals in English, mathematics, science, and social studies. And *all* of the Skills for Success are equally applicable in *all* of the content subjects, including those beyond the four required subjects.

The team that developed the Skills for Success felt strongly that these skills should be taught in *every* subject in high school, not only to increase the quality of learning in those courses, but to reinforce and extend the learning of these skills in academic courses. And, even though the Skills for Success are taught in other subject areas, are integrated into those subjects, the development team felt they should retain their identity as a separate set of learning goals. They should be used as a template to guide curriculum development in *any* course and a quality control template in required academic subjects, pulling them toward better learning experiences, high quality thinking, more effective communication and use of technology, and learning experiences that teach students to work and learn together.

In regard to testing, some of the Skills for Success, like thinking critically, could be integrated into tests of the achievement of learning goals in the academic subjects. Others, like learning skills, might better be assessed in student portfolios. Technological skills might be displayed in performance assessments, actually using technology in, say, science or English. It is clear that assessment of a student's competence in Skills for Success will require several kinds of instruments and procedures, none of which exist for the sole purpose of assessing these skills. Guidelines for assessment will be developed in collaboration with local school systems.

What's next?

All of the learning goals in the high school assessment project will go through a period of intensive public review in 1995. Following that review and revisions to address public concerns and suggestions, the State Board of Education will be asked to adopt the goals as part of a comprehensive plan for the entire. Implementation is expected to begin in the year 2000.

SKILLS FOR SUCCESS
CORE LEARNING GOALS

GOAL 1 : LEARNING SKILLS

The student will plan, monitor, and evaluate his or her own learning experiences.

GOAL 2 : THINKING SKILLS

The student will think creatively, critically, and strategically to achieve goals, make effective decisions, and solve problems.

GOAL 3 : COMMUNICATION SKILLS

The student will plan, participate in, monitor, and evaluate communication experiences in a variety of situations.

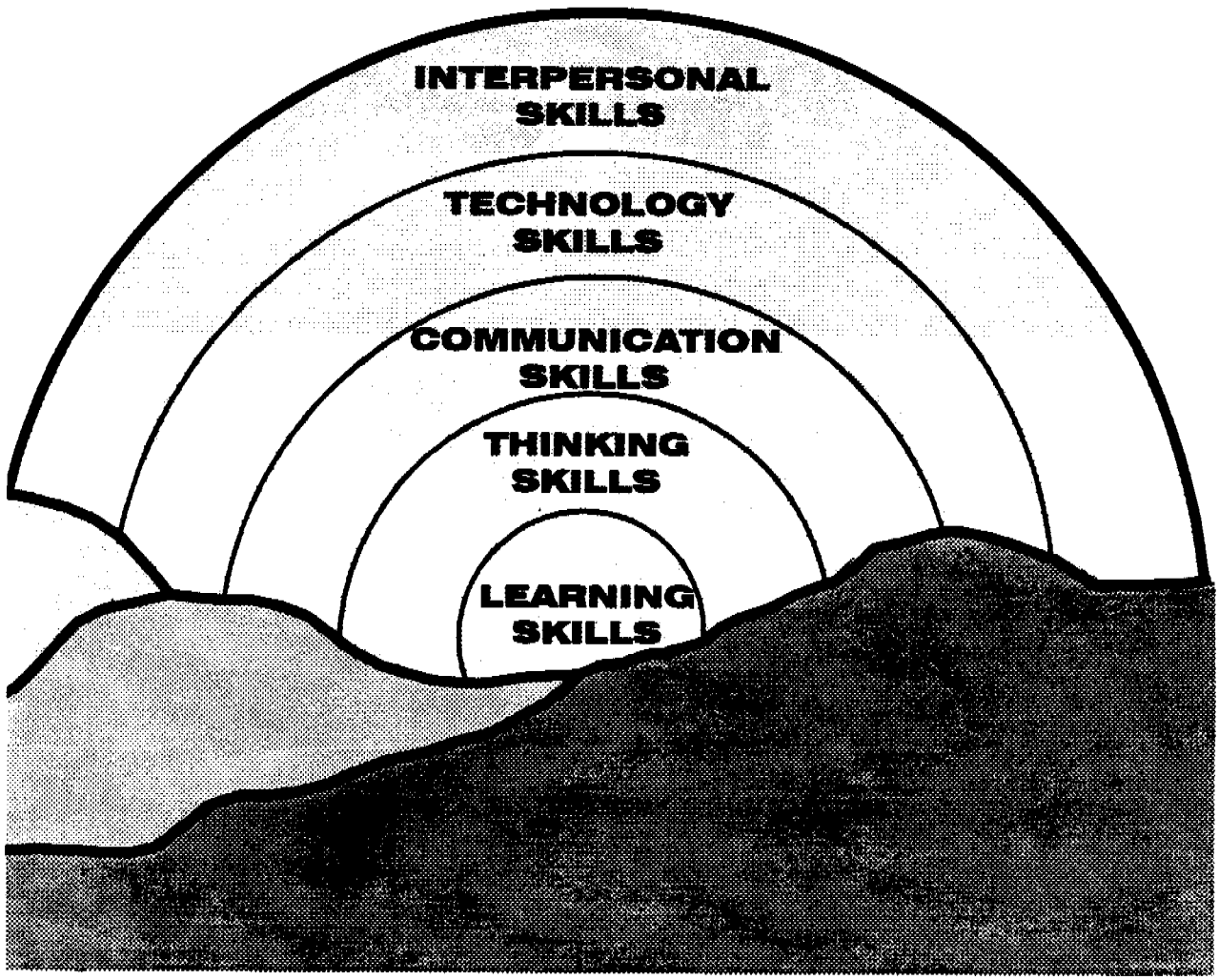
GOAL 4: TECHNOLOGY SKILLS

The student will understand, apply, and evaluate technologies as labor-enhancing and problem-solving tools.

GOAL 5: INTERPERSONAL SKILLS

The student will work effectively with others and participate responsibly in a variety of situations.

MARYLAND'S SKILLS FOR SUCCESS: PREPARING HIGH SCHOOL GRADUATES FOR THE 21ST CENTURY



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GOAL 1: LEARNING SKILLS

The student will plan, monitor, and evaluate his or her own learning experiences.

1. ***Expectation: The student will establish and pursue clear, challenging goals for learning.***

   A. Indicators of Learning

   (1) The student will develop short- and long-range goals for learning.

   (2) The student will use personal goals to guide learning experiences.

   B. Sample Learning Activity

   Rachel has always been interested in a career in health. She thinks she would like to be a pediatrician. Her career exploration opportunities in middle school reinforced that interest. When Rachel entered ninth grade, her parents and guidance counselor helped her to develop a high school career plan that included a program of study that would prepare her for her long-range career goal. Rachel's short-term goals include developing a strong foundation in mathematics and science, as well as volunteer work in the local medical clinic for children.

2. ***Expectation: The student will plan, monitor, and evaluate his or her own learning experiences.***

   A. Indicators of Learning

   (1) The student will plan learning experiences before acting.

   (2) The student will select and use appropriate resources and learning strategies.

   (3) The student will monitor progress when following a learning plan.

   (4) The student will identify and address problems that impede learning.

   (5) The student will evaluate learning experiences.

B. Sample Learning Activity

With her guidance counselor's help, Rachel plans her four years of high school to prepare her for acceptance into one of two colleges with good track records for helping students get into medical school. At the end of ninth grade, she meets with her guidance counselor to evaluate her progress during the first year of high school and to plan for any changes that she may need to make. They agree to meet annually, or more frequently should problems arise, to monitor Rachel's plan.

3. ***Expectation: The student will adapt, as necessary, to changing needs and situations.***

A. Indicators of Learning

(1) The student will reassess learning goals based on performance or changes in situations.

(2) The student will adjust goals/strategies as necessary.

(3) The student will accept and use constructive criticism.

(4) The student will take advantage of new learning opportunities.

B. Sample Learning Activity

As a high school senior, Rachel in still interested in becoming a pediatrician. With the assistance of her biology teacher, she has obtained an internship at the National Institutes of Health. After working for two weeks with her internship sponsor, Rachel is concerned that the sponsor does not have adequate time to devote to her development. Rachel consults her teacher for advice, sharing her concerns and her desire to find another sponsor. Rachel's teacher cautions her not to make a rash decision. Together they design a strategy for getting Rachel's sponsor more involved in her learning.

4. *Expectation: The student will persevere, when appropriate, in difficult learning situations.*

A. Indicators of Learning

(1) The student will take personal responsibility for learning in difficult situations.

(2) The student will allocate time and effort as needed.

(3) The student will seek assistance or change strategies when necessary.

B. Sample Learning Activity

Rachel's AP Chemistry course is difficult for her. At the end of the first marking period, she is barely passing. Rachel meets with her teacher to decide what she must do to improve. Her teacher agrees that the course is difficult. She thinks Rachel must devote more time to studying and to her homework assignments. She also suggests a study partner for Rachel. Rachel considers the suggestions, agrees to follow through, and makes plans to meet with her teacher midway through the next marking period to assess the effectiveness of her plans for improvement.

5. *Expectation: The student will apply acquired knowledge and skills effectively in new learning situations.*

A. Indicators of Learning

(1) The student will identify similarities and differences between old and new learning situations.

(2) The student will identify knowledge, strategies, or skills that could be useful in new learning situations.

(3) The student will adjust strategies as necessary to work in new situations.

(4) The student will evaluate the usefulness of acquired knowledge, strategies, and skills in new learning situations.

B. Sample Learning Activity

Rachel solved her problems with the internship sponsor at the National Institutes of Health. She had a successful year-long experience. The laboratory where she works as an intern is enthusiastic about her performance and has asked her to stay on despite the fact that her sponsor is leaving NIH for another position. Rachel must now "break in" a new sponsor. Reflecting on her earlier experiences, she plans an initial meeting with her new sponsor to discuss her expectations and negotiate how they can best work together to meet each other's needs.

GOAL 2: THINKING SKILLS

The student will think creatively, critically, and strategically to achieve goals, make effective decisions, and solve problems.

1. ***Expectation:*** ***The student will generate creative ideas in a variety of situations.***

   A. Indicators of Learning

   (1) The student will brainstorm alternative perspectives or ways of thinking and acting in a variety of complex situations.

   (2) The student will represent his or her creative ideas in a verbal or nonverbal form appropriate to his or her purpose.

   (3) The student will apply and test new ideas/solutions before adopting them.

   B. Sample Learning Activity

   A social studies teacher challenges his students to design and evaluate creative solutions to transportation problems in their community in the middle of the 21st century. Working in groups, they must research the issues, develop a plan, and present their plan to the class. Each student must also produce a written, individual report on a section of their group's plan.

2. ***Expectation:*** ***The student will evaluate information, issues, and positions critically.***

   A. Indicators of Learning

   (1) The student will identify key issues in complex situations.

   (2) The student will evaluate relevance and utility of information for specific purposes.

   (3) The student will examine basic concepts and assumptions underlying an issue or position.

(4) The student will establish clear criteria for evaluating an issue or position.

(5) The student will recognize bias, vested interests, stereotyping, manipulation, and misuse of information.

(6) The student will use evidence and/or reason to support or refute an issue or position.

B. Sample Learning Activity

The students collect information on current transportation problems in their community and estimates of future transportation needs based on population growth and the location of jobs. One group decides to narrow its focus to commuter traffic between their own residential communities and employment opportunities in other places. The students identify environmental, economic, technological, and social issues that may affect future conditions. They also identify vested interests that may affect planning, development, and implementation. They determine the relevance and utility of information used to support plans and positions on the issues.

3. ***Expectation: The student will demonstrate strategic thinking in a variety of situations to make effective decisions and achieve goals.***

A. Indicators of Learning

(1) The student will demonstrate an awareness of his or her own thinking and that of others.

(2) The student will frame questions, problems, and issues in an appropriate context.

(3) The student will identify goals appropriate to available resources, skills, and situations.

(4) The student will identify alternative strategies to achieve goals.

(5) The student will plan and follow steps to achieve goals and make decisions.

(6) The student will monitor, evaluate, and make necessary adjustments in goals, plans, or actions.

B. Sample Learning Activity

The students identify the needs and anticipate the responses of different groups of people who are affected by commuter transportation systems. For instance, how will planners balance the need for clean air, the preservation of green space, and efficient technology against the need for people in their community to get to work? Who will pay for improved transportation systems? They consider a broad range of options based on people's needs, anticipated resources, available technologies like electric cars and magnetic-suspension monorails, and potential impact on the environment and society. They develop explicit, flexible plans for improving commuter transportation systems, check-points for monitoring progress, and criteria for evaluating results.

4. ***Expectation: The student will solve problems systematically and rationally.***

A. Indicators of Learning

(1) The student will understand the situation or context within which the problem is embedded.

(2) The student will define a problem.

(3) The student will identify and evaluate alternative solutions to the problem.

(4) The student will select and use appropriate strategies to solve the problem.

(5) The student will evaluate the solution and the strategies used to solve the problem.

B. Sample Learning Activity

A parent of one of the students raises a concern about the plans. What will happen, they ask, if the improvement of transportation for their community causes more people to want to live there and the cost of housing rises so high that many families could no longer afford to live in that community? The teacher asks them to recommend a strategy for solving this problem or at least reducing its negative effects. The students write a clear, objective

statement of the problem and gather feedback and suggested solutions from parents, homeowners, realtors, retired people, and other affected groups in their community. Next, they identify several strategies for solving the problem and discuss the pros and cons of each strategy. The students finish their project by presenting their proposals to members of the community as well as their peers and teachers.

GOAL 3: COMMUNICATION SKILLS

The student will plan, participate in, monitor, and evaluate communication experiences in a variety of situations.

1. ***Expectation:*** ***The student will plan for successful communication experiences.***

A. Indicators of Learning

(1) The student will identify audiences and purposes for communicating.

(2) The student will identify appropriate means for constructing and delivering messages for a variety of purposes, audiences, and situations.

(3) The student will practice before attempting to communicate.

(4) The student will identify potential problems and plan to prevent or solve them.

B. Sample Learning Activity

Karen has to complete a paper and oral presentation in both her physics and physical education classes. She asks her teachers if she can combine these projects by describing a gymnast's motions in terms of direction, speed, velocity, and position. As she plans her project, Karen thinks about the very different content, audiences, and locations of each presentation. She knows she will have to work harder on learning and presenting the physics concepts than on demonstrating and describing the tumbling sequences because she has been taking gymnastics lessons for seven years. Before giving her presentations, Karen practices at home, and her family critiques her performance. Her sister says that it was hard to remember and distinguish among the different principles of motion, so Karen decides to make posters with the name of the principle (e.g., speed) and a basic definition.

2. ***Expectation:*** ***The student will acquire, manage, and convey information, using a variety of strategies and technologies.***

A. Indicators of Learning

(1) The student will gather information from a variety of sources, using appropriate technologies and processes.

(2) The student will use listening skills to help interpret and evaluate spoken messages.

(3) The student will evaluate the utility of information gained for specific purposes.

(4) The student will organize and maintain information in appropriate written, graphic, electronic, or other form.

(5) The student will convey information, using strategies and means appropriate to the audience, purposes, and situation.

B. Sample Learning Activity

Karen conducts a literature review in her library media center to identify written sources of information that will help her with her project. She also develops questions and then interviews her physics and physical education teachers and her gymnastics coach. Karen reviews her notes and selects information to use as she drafts her report. In planning her oral presentations, Karen decides to use a videotape of the tumbling sequence in her physics class that shows how variations in speed, direction, and position affect the gymnast's motion. In her physical education class, Karen actually performs the tumbling sequence, and in her written report, she uses photographs and drawings to illustrate and analyze the different principles of motion.

3. ***Expectation:*** ***The student will monitor communication processes and make necessary adjustments to solve problems.***

A. Indicators of Learning

(1) The student will monitor ongoing communication processes, using identified purposes and plans as guidelines.

(2) The student will identify problems and make adjustments to solve them as necessary.

B. Sample Learning Activity

While giving her oral presentations, Karen looked for verbal and non-verbal responses from her audience. At one point during her talk, she encountered questioning looks. Karen made adjustments in her presentation by reviewing her prior point and questioning the audience to make sure that they understood what she was saying and demonstrating.

4. ***Expectation:*** ***The student will evaluate communication experiences in a variety of situations.***

A. Indicators of Learning

(1) The student will evaluate success in achieving purposes and using audience feedback and other sources of information.

(2) The student will evaluate the effectiveness of communication strategies and technologies for the audience, purposes, and situation.

(3) The student will identify problems in style, content, form, means, situation, or feedback, and plan to prevent or solve those problems in the future.

B. Sample Learning Activity

Karen developed a short evaluation form that she distributed to her teachers and classmates after her presentations. She used this feedback in writing a self-evaluation of her research project. In her evaluation, Karen identified aspects of her paper and presentations that worked well, described the problems she encountered, and outlined how she might do things differently in the future to get better results.

GOAL 4: TECHNOLOGY SKILLS

The student will understand, apply, and evaluate technologies as labor-enhancing and problem-solving tools.

1. ***Expectation:*** ***The student will demonstrate knowledge of current technologies appropriate for a variety of purposes and situations.***

A. Indicators of Learning

(1) The student will identify and use resources and procedures for keeping abreast of advances in technology.

(2) The student will identify appropriate and current technologies for accessing and managing information, communicating, performing work, and solving problems in a variety of situations.

(3) The student will evaluate the use of current technology in specific situations and suggest appropriate changes.

(4) The student will identify future needs for technology for specific purposes in a variety of situations.

B. Sample Learning Activity

Students in science classes across Maryland—such as earth science, biology, environmental science, and agricultural science—are participating jointly in environmental investigations aimed at studying the relationships among living resources, pollution, and water quality in the Chesapeake Bay. Students learn how to use various technological instruments to collect and analyze data samples. Students learn to use computer software programs that help them manage and analyze the data. Students also work in groups to understand how agricultural and fishing technologies affect living resources and their impact on the pollution of water.

2. ***Expectation**: The student will use technology effectively for a variety of purposes and situations.*

A. Indicators of Learning

(1) The student will develop computer literacy skills, including concepts and applications.

(2) The student will use appropriate technologies to access, store, manage, analyze, and communicate information.

(3) The student will use appropriate technologies to solve problems in complex situations.

(4) The student will demonstrate safe, effective, and creative use of labor-saving or -enhancing technologies in a variety of situations.

B. Sample Learning Activity

Each weekend, students use lab instruments to collect water samples. They collect data on water chemistry and the number, diversity, and distribution of species. In collecting water samples, students are trained and monitored in the safe, effective use of sampling equipment and chemicals. Students also use computers and statistical and graphing calculators to input, analyze, and report their data. Students use technology to share data with other schools in Maryland and across the country via technological networks such as METNET and the INTERNET. Results from each individual high school and summary results can then be downloaded. Students use graphic software programs to report trends in their data.

3. ***Expectation**: The student will demonstrate an understanding of the impact of technology on the environment, society, and individuals.*

A. Indicators of Learning

(1) The student will develop criteria for evaluating the effects of technology.

(2) The student will evaluate the effects of technology on the environment, society, and individuals in a variety of situations.

(3) The student will design technological systems with the most positive and least negative effects in specific situations.

B. Sample Learning Activity

In the small-group assignments, each group identifies a single or set of relationships among policies and technology within agriculture and fishing that affect water quality in the Chesapeake Bay. Each group identifies and applies criteria for evaluating the effects of the technology. One group looked at the positive and negative effects of no-till planting procedures. A second group evaluated the low-tech use of skipjacks as a means of protecting resources. Another group studied the technology for growing oyster spat (baby oysters) through aquaculture as a means of combating the pollutants threatening natural propagation.

GOAL 5 - INTERPERSONAL SKILLS

The student will work effectively with others and participate responsibly in a variety of situations.

1. ***Expectation:*** ***The student will demonstrate effective interaction strategies.***

A. Indicators of Learning

(1) The student will accept responsibility for self and actions.

(2) The student will show respect for the opinions, rights, cultural differences, and contributions of others.

(3) The student will provide, accept, and use constructive feedback to adjust behavior.

B. Sample Learning Activity

As his student service leaning project, John is working with several classmates to tutor students in mathematics at a nearby school. John and his other team members agreed that they would commit one afternoon each week for ten weeks to tutoring, and other days as necessary to plan and reflect on their project. To prepare them for the new school environment, their project advisor talked to them about the language, school climate, and other cultural differences they might encounter. John's group agreed to meet with their project advisor every two weeks to update her on their progress and to seek advice.

2. ***Expectation:*** ***The student will work cooperatively with others in a variety of situations.***

A. Indicators of Learning

(1) The student will participate in developing goals for group activities.

(2) The student will support group consensus and respect dissenting positions.

(3) The student will participate in developing group rules or procedures and follow them.

(4) The student will demonstrate understanding of and assume various roles in groups.

(5) The student will contribute personal resources to the group.

(6) The student will help resolve conflicts and bring the group to consensus when appropriate.

(7) The student will develop and use criteria to evaluate individual and group performance.

(8) The student will use strategies to improve individual and group performance.

B. Sample Learning Activity

John's team develops goals and makes assignments for carrying out the tutoring project. At the next meeting, not all members had completed their assignments. The group reviewed their ground rules, and everyone agreed that they would check with each other daily to see what progress was made. The group also discussed an end-of-semester recognition activity for the students they tutored. The group could not agree on whether they wanted to have a pizza party, give students a calculator, or do something more active like going to a baseball game. John suggested that before choosing an activity, they should estimate costs and look for sponsors. When the group agreed, he volunteered to ask his father, who works with the local business council, if he could help them identify potential sponsors for these types of recognition activities.

3. ***Expectation: The student will function as a responsible citizen.***

A. Indicators of Learning

(1) The student will participate in democratic processes in a variety of situations.

(2) The student will demonstrate an understanding of cultural heritages and multicultural groups in the nation and the world.

(3) The student will demonstrate an understanding of important environmental, social, and economic issues.

(4) The student will demonstrate ability to make reasoned consumer decisions in a variety of situations.

(5) The student will demonstrate ability to manage financial resources responsibly.

(6) The student will plan and act for the well being of the community.

B. Sample Learning Activity

At the end of the semester, the group reflected on its tutoring experiences. The data showed that math scores rose for almost every student. They also had learned that they were the first "older" people who had devoted time outside of school to helping these students with their math homework. Often, they thought that the increases in student achievement were due to their role as that of an interested, older person. They knew that the parents were unable to help their children because, in most instances, they were working in the evenings after school. They agreed to continue volunteering with these students when their student service project ended. They also decided to approach the local Chamber of Commerce to propose the establishment of a mentoring program so that these and other needy students at the middle school would have the opportunity to interact regularly with an adult who could fill in during those times when parents were working.

Appendix A

SKILLS FOR SUCCESS IDENTIFIED IN LOCAL, STATE, AND NATIONAL REPORTS

Maryland Counties		States					National		
Carroll County	Baltimore County	Massachusetts	Vermont	Maryland	Illinois	Wisconsin	Workplace Basics	SCANS	NAS
Able Communicators	Able & Effective Communicators	Skillful & Responsive Communicators	Communication	Plan & Manage Communication for Success	Communication on the Job	Several Indicators	- Communication	Basic Skills	Reading, Writing, Oral Communication
Collaborative Workers				- Work effectively with others - Participate Responsibly in society	- Maintaining Interpersonal Relationships - Teamwork	Team Building	- Group Effectiveness - Influence	Interpersonal Skills	Interpersonal Relationships
- Perceptive Problem Solvers - Innovative Producers	Self-Motivated, Critical, & Creative Thinkers	Clear & Creative Thinkers	Reasoning & Problem Solving	Critical, Creative, & Strategic Thinking to Solve Problems & Make Sound Decisions	Solving Problems & Critical Thinking	Problem Solving	Adaptability, Creative Thinking & Problem Solving	- Thinking Skills - Use of Resources Info.,Systems Tech	Reasoning & Problem Solving
Self-directed, Lifelong Learners		Confident & Capable Lifelong Learners	Personal Development	- Manage Own Learning - Adapt to Change	Several Indicators		- Knowing how to Learn - Personal Management		
Individuals with a Positive Self-Concept	- Resourceful Individuals Valuing Physical & Mental Well-Being - Ethically Responsible/ Caring Human Beings with Strong Sense of Self							Personal Qualities	Personal Work Habits
Involved Citizens	Productive & Resp. Participants in Plural Society & Global Econ.	Responsible & Active Contributors	Social Responsibility						
	Aesthetically Responsible Individual	Several Indicators							
		Indicator - Use technology and media		Use Technology as Labor-Saving & Problem-Solving Tools				Technology	

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