

# SREB

# Making Middle Grades Work:

Raising the Academic Achievement of All Middle Grades Students

Imagine a school where all middle grades students are engaged actively in learning challenging content taught by well-prepared teachers who know their subjects and how to teach them — a school where everyone receives the help he or she needs to achieve high standards. This school builds on a solid elementary background and prepares each student for a high school experience that leads to a successful adult life.

Most adolescents realize they are preparing for their future as adults and believe that it is important to strive for success in the workplace. However, the workplace for today's eighthgraders will be vastly different from the one for which their parents and teachers prepared.

How well are American schools preparing students for this changing world? Too many young people are unprepared to succeed in high school when they leave the middle grades. There is a growing consensus that high school students need to complete a college-preparatory curriculum. Yet national data indicate that about 40 percent of students who leave the middle grades are performing below the basic levels in reading, mathematics and science. The National Assessment of Educational Progress 2000 mathematics data reveal that only 28 percent of eighth-graders are performing at the proficient level, which shows readiness to do college-preparatory work in high school.

Higher failure rates in grades nine and 10 also indicate inadequate preparation for high school. Data from six states reveal that the percentages of students retained at grade nine are four to six times higher than the averages for earlier grades. One state estimates that mandatory retention for students who have not demonstrated mastery of content by the end of eighth grade would result in retention for half of all eighth-graders.

In the mid- to late 1990s, the Southern Regional Education Board began analyzing data about academic achievement in the middle grades, which were identified as the "weak link" in education. SREB found several causes for this weakness:

- an unclear mission for the middle grades;
- middle grades teachers' insufficient content preparation and lack of knowledge of how to teach young adolescents;
- the lack of specific indicators or criteria for high school readiness; and
- the false belief that young adolescents cannot deal with challenging work because of puberty.

Southern Regional Education Board

592 10th St. N.W. Atlanta, GA 30318 (404) 875-9211 www.sreb.org

## Making Middle Grades Work: Mission and goals \_\_\_\_\_

Middle grades schools should have concrete, measurable mission statements. The following is an example of a clear mission statement:

The mission of this middle school is to make sure that all students leave eighth grade with the knowledge and skills to be successful without remediation in a college-preparatory curriculum and with plans for what to study to complete high school and prepare for future education and careers.

A school could measure its progress toward this mission by requiring each exiting eighth-grader to have a five-year plan for high school and one year beyond and by reviewing data on ninth-graders' participation and performance in college-preparatory courses.

SREB's Making Middle Grades Work effort has several goals that support the middle grades mission:

- Increase the percentages of eighth-graders who perform at the proficient levels in academic subjects.
- Provide educational experiences that increase students' knowledge and skills in reading, mathematics, language arts, science and social studies.
- Provide students with opportunities to apply their skills in the fine arts and to explore careers and new technology.

SREB believes that schools will achieve these goals if they base their efforts on a comprehensive improvement framework of key practices and essential conditions.

# The comprehensive improvement framework \_\_\_\_\_

School and classroom practices and student performance are more likely to change if they are aligned to a framework that provides direction and meaning to comprehensive school improvement. SREB's comprehensive improvement framework and essential conditions guide and support the changes necessary to raise student achievement.

#### Essential conditions for raising student achievement \_\_\_\_\_

There is no "quick fix" for getting students to learn and to apply what they learn. Teachers, school and district leaders, and community members must work together to design improvement strategies, allocate resources and develop an accountability process. Implementing the comprehensive improvement framework requires a sustained effort and support from the entire educational system. Certain conditions provide a structure for

# A comprehensive improvement framework

- An academic core that is aligned to what students must know, understand and be able to do to succeed in college-preparatory English, mathematics and science — All students in the middle grades need an academic core curriculum that accelerates their learning, challenges them and appeals to their interests.
  - In mathematics, all students satisfactorily complete Algebra I or pass a pre-algebra test of proficiency and use algebra concepts to reason and solve problems.
  - In science, all students use laboratory and technology experiences to learn scientific concepts in physical, life and earth/space sciences.
  - Reading instruction is incorporated into all content areas in the academic core curriculum through grade eight.
  - The language arts curriculum requires students before they leave eighth grade to use language correctly and effectively to find, organize and communicate information.
  - The social studies curriculum requires students before they leave eighth grade to describe their heritage, their government, their world and economic principles through key issues of the past, present and future.
- A belief that all students matter Each student needs to have a personal relationship with an adult who takes an interest in his or her successful learning, goal-setting, educational planning and personal growth.
- High expectations and a system of extra help and time --- Students learn in different ways and at different rates. Middle grades students need enough time and help to meet more rigorous, consistent standards for all eighth-graders. The middle grades curriculum should accelerate achievement for all students.
- Classroom practices that engage students in their learning Young adolescents need varied learning activities linked to challenging academic content and opportunities to use new skills and concepts in real-world applications.
- **Teachers working together** All teachers need time to plan together, to develop and coordinate learning activities, and to share student work that meets proficiency standards.
- Support from parents Parents must understand clearly and must support the higher standards for performance in the middle grades.
- Qualified teachers Middle grades teachers must know academic content and how to teach young adolescents.
- Use of data States, districts and schools continuously must use data on student, school and teacher performance to review and revise school and classroom practices as needed.
- Use of technology for learning Middle grades students and teachers must have opportunities to explore and use technology to improve knowledge and skills in English/language arts, reading, mathematics, science and social studies.
- **Strong leadership** Middle grades schools need strong, effective principals who encourage teachers and participate with them in planning and implementing research-based improvements.

changes in climate, practices and personnel. These conditions help schools focus on the elements in the framework that must be strengthened.

- Commitment State partners, the local school board, district leaders and the community must commit to implementing the comprehensive improvement framework fully.
- Planning for continuous improvement District and school leaders must create an organizational structure and a process that provide teachers and administrators with the time and means to discuss and plan strategies to raise student achievement. Leaders and teachers decide what to teach, how to teach, what to expect students to learn and how to evaluate student learning.
- Curriculum District leaders must encourage a review to assess the curriculum's alignment with state, national and international standards. Content and performance standards will define the quantity and quality of work expected at each grade level.
- Support for professional development District and school leaders must provide leadership and financial support for professional development that is connected directly to academic standards and gaps in student achievement. Professional development includes support for teachers as they implement teaching practices that have proven records of effectiveness.
- Teacher preparation The local school board should encourage teachers without majors or minors in the subjects they teach to upgrade their content knowledge through academic courses. The board also should make an effort to hire teachers whose content backgrounds match their teaching assignments.

### Establishing readiness for success in high school

The middle grades provide students with exciting learning opportunities. Students increasingly think abstractly and envision themselves as part of a world community. They are eager to learn new concepts, and they want and need activities that will help them apply what they are learning.

These years also challenge teachers and administrators. Preparing students for a rigorous high school curriculum is the primary goal. Each student needs help in developing a specific program to prepare him or her for ninth grade. There are common goals for all middle grades students.

**Mathematics:** By the end of grade eight, all students will pass a pre-algebra proficiency test and will be able to use algebra skills to solve problems, or they will complete Algebra I satisfactorily.

Science: All students will use the scientific process, mathematical analysis and engineering design to pose questions, seek answers and develop solutions in physical, life and earth/space science courses. These classes will incorporate laboratory and technology experiences. Students will design, conduct, analyze and give oral and written descriptions of scientific investigations.

**Reading:** All students will demonstrate an overall understanding of eighth-grade materials. They will read 25 to 30 books or the equivalent across the curriculum each year and will apply various strategies while reading independently to learn in all content areas. They will be able to synthesize, analyze and formulate critical opinions from texts.

Language arts: By the end of eighth grade, students will be able to find, organize and report information using correct, effective language skills as they communicate in various formats for different audiences and purposes. Students will complete short writing assignments weekly and major reports once a semester, and they will write research papers to standards that indicate readiness for college-preparatory English in high school.

**Social studies:** By the end of grade eight, students will be able to describe their heritage, their government, the world in which they live and key economic principles by studying issues of the past, present and future. They will be able to assess geography's influence on economic, social and political development.

### The importance of well-planned transitions \_\_\_\_\_

Research indicates that students experience an achievement lag for at least a year unless transitions are planned well and carried out successfully. Considering that most students spend only about three years in the middle grades, it is important that transitions to and from the middle grades be as smooth as possible.

Schools with successful transition programs provide students and parents with information on the new school in various ways and at various times. Some schools in SREB's network begin with a sixth-grade camp. Sixth-graders learn their way around the building and how to organize their assignments to be successful. Some may complete a small unit of instruction that gives examples of quality work. Families of these "campers" join them one evening for an abridged version of a typical school day. These transition activities continue during the year as teacher-advisers help sixth-graders develop good organizational and study skills.

In schools that focus on easing transitions, students who struggle in the sixth grade are assigned to smaller teams headed by master teachers in the seventh grade. A "gearing-up" program identifies seventh-graders who need accelerated instruction in order to be prepared for challenging work in high school. These students are enrolled in an enhanced program of reading, language arts and mathematics that provides three years of instruction in two years. They have a support period each day to work in teams on projects and homework assignments, to receive instruction in study skills and social skills, and to get help from the support teacher. Students begin looking at future goals and understanding what is required to achieve these goals.

Seventh- and eighth-graders get information about the level of work required in high school, and they become acquainted with high school counselors and advisers. Students exiting eighth grade who are performing at or below the 40th percentile attend a four- to six-week summer program that focuses on reading, mathematics, study skills and computer skills. They also participate in field trips and other experiences that demonstrate how academic knowledge and skills are used outside the classroom.

In successful transition programs, middle grades and high schools work together to inform students and parents about their choices and the decisions they must make. Personnel at middle grades schools and high schools align their curricula and expectations to ensure that students have the knowledge and skills to succeed in high school. Transition activities start out in the middle grades school, but over time move to the high school. With the help of families, teachers and counselors from both the middle grades school and high school, students complete five-year educational plans.

Ninth-graders who are unprepared for college-preparatory English, Algebra I and labbased science are enrolled in a catch-up program that includes double doses of language arts/reading and mathematics. The first semester of this two-semester block-schedule program consists of the following:

- a language arts course that stresses high-interest teen reading, writing and grammar;
- a mathematics course that stresses arithmetic and pre-algebra;
- a computer course that focuses on databases, word processing, PowerPoint, Internet and e-mail;
- **a** social studies course taught at the college-preparatory level; and
- a support period on alternating days so that students can work in teams on projects and homework assignments, get help from the support teacher, and receive instruction in study skills and social skills. Students also assess their interests and aptitudes.

During the second semester, students take college-preparatory ninth-grade English and Algebra I; a college-preparatory physical science or integrated science course that is aligned with Algebra I and includes lab experiments and scientific methods; and a support period (as described above).

Gear-up and catch-up programs are implemented more easily with flexible, block scheduling. Larger blocks of time promote more creative learning and teaching techniques. If middle grades students are to make the transition successfully into college-prep classes in high school, they need time to do research, to analyze their findings, to write papers and to present their findings to the class. Longer, block-schedule class periods also are more conducive to project-based learning and interdisciplinary activities related to real-world problems. An effective transition program uses advisement and guidance systems appropriately. Such systems make every adult in the school a mentor for students throughout the middle grades and high school. Advisers provide one-on-one support that helps students set goals, plan programs of study and involve their parents in the process.

### The Middle Grades Assessment \_\_\_\_\_

Making Middle Grades Work seeks to accelerate academic achievement in the middle grades by changing what students are taught; how they are taught; when they are taught certain subjects; how teachers relate to students, other teachers and parents; and how teachers receive support.

To determine schools' progress toward implementing the comprehensive improvement framework, SREB uses an assessment process that combines tests, surveys, school visits and other data collected by schools. Every two years, SREB administers the Middle Grades Assessment, which consists of the following parts:

- School Data Profile: This profile provides demographic and organizational information about the school and is completed by the principal, site coordinator or someone assigned to handle this task. Annual updates on demographics and programs are required.
- Middle Grades Teacher Survey: All full- and part-time teachers complete this survey. (School counselors, administrators and media specialists do not complete this survey.) This survey gives teachers a voice in the school improvement process. Survey information can be used in planning professional-development programs that fit teacher and student needs.
- Middle Grades Principal Survey: The principal completes this survey, which covers school climate, processes and policies.
- SREB Middle Grades Student Assessment: The Middle Grades Assessment is based on items produced by the National Assessment of Educational Progress (NAEP). It consists of four sections: reading, mathematics, science and a student survey.
- The Technical Assistance Visit: The purpose of the technical assistance visit is to help school leaders and teachers identify changes needed to improve student achievement in the middle grades. SREB in partnership with the state conducts a three-day visit to each school the year it joins the network. The technical assistance visit team includes representatives from the district and from elementary schools and high schools associated with the middle grades school. After the visit, SREB produces a report that recognizes the school's strengths, identifies the challenges it faces and recommends actions that school leaders should consider as they refine the school's improvement plan.

The Technical Review Visit: About 18 months after the technical assistance visit, the technical assistance team leader and state coordinator conduct a one-day visit to the school. These visits enable Making Middle Grades Work schools, SREB staff and state coordinators to assess progress in implementing the comprehensive improvement framework. They also help fine-tune action plans and identify further technical assistance that schools need.

Schools in SREB's middle grades network are expected to adopt school and classroom practices that effectively engage students in learning and advance achievement. The Middle Grades Assessment provides data to measure progress until the comprehensive school-improvement framework is implemented fully and at least 85 percent of students reach achievement goals in reading, mathematics and science.

To improve continuously, schools need to set benchmarks for determining school progress that are associated strongly with increasing student achievement. SREB's sample benchmarks are based on the comprehensive improvement framework for the middle grades and on essential conditions. Students taking the Middle Grades Assessment are asked whether the indicators are true at their schools. The benchmarks are divided into categories that can help organize all efforts to improve student achievement. See page 9 for an example of a category and its related benchmarks.

### A partnership for comprehensive school improvement \_\_\_\_\_

SREB believes that a partnership with state and local leaders can accelerate change in the middle grades. By agreeing to implement a comprehensive improvement framework, each participating state, district and school site can share strategies that accelerate student achievement.

#### Each state agrees to:

- designate a state middle grades coordinator to represent the state at semiannual meetings of the middle grades board;
- create a network of middle grades schools that work together, share resources and solve common problems;
- assist middle grades schools through technical assistance visits, regular discussions of progress and barriers, and annual reviews of action plans;
- support schools' improvement efforts by identifying professional-development experiences that address specific needs;
- attend SREB's annual staff-development conference and other middle grades conferences and workshops;

## Benchmark: Raise expectations and provide extra help \_\_\_\_\_

- The school expects high-quality work from all students, and all students participate in challenging classes.
- The school systematically identifies struggling students and provides them with extra help in multiple ways.

Indicators	Percent of students who say their schools meet the indicators			
	2000 (baseline)	2002	2004	2006 (goal)
Students report that teachers often set high standards and are willing to help them meet these standards.				85
Students report that teachers often indicate the amount and quality of work necessary to earn an A or B.				85
Students and families receive examples of work that meets guidelines and standards.				70
Teachers require students to revise work until it meets standards.				70
Students who earn below a C are required to attend extra-help sessions several times a week.				85
Students report that they have easy access to extra help when they need it.				85
Students report that their teachers and other adults at the school are available before, during and after school to help them.				85

- identify outstanding practices in schools statewide; and
- prepare annual reports that summarize state and school accomplishments and address challenges to improving student achievement.

#### Each participating school or district agrees to:

- promote a vision of high achievement for all students;
- obtain school board support for SREB's middle grades initiative and the changes required to implement the comprehensive improvement framework;
- appoint a site coordinator to coordinate planning, professional development, technical assistance and the Middle Grades Assessment;

- establish school goals based on benchmarks of middle grades achievement;
- develop a three- to five-year improvement plan;
- support teachers with professional development, materials and the time they need for working together to implement the comprehensive improvement framework and for participating in national, state and school professional development;
- participate in a technical assistance visit in the first year of membership in the network and a technical review visit 18 months later;
- administer the biennial Middle Grades Assessment; and
- share information and ideas with other members of the middle grades network.

#### SREB agrees to:

- work with states to conduct site development workshops that apply the comprehensive improvement framework to schools and result in action plans for school improvement;
- manage and/or lead a three-day technical assistance visit to each school;
- provide schools with consultation and technical assistance as they implement the comprehensive improvement framework;
- help each school identify and plan professional-development opportunities that match its action plan;
- provide professional-development opportunities that address schools' common needs and link schools together to exchange "best practices";
- conduct a one-day technical review visit to assess progress at each school 18 months after its technical assistance visit;
- provide research briefs and guides on school improvement and issues associated with the comprehensive improvement framework;
- provide information and dissemination services to support schools and districts through publications, videos and the Internet;
- establish a technology-based network and support system for schools that includes listservs, informational Web pages and Web-based courses;
- evaluate schools' progress in raising student achievement; and
- describe outstanding practices and exemplary schools that raise student achievement.

#### For more information \_

For more information on Making Middle Grades Work, contact:

- Gene Bottoms, senior vice president, Southern Regional Education Board, (404) 875-9211, Ext. 277, or gene.bottoms@sreb.org
- Sondra S. Cooney, director, Making Middle Grades Work, (404) 875-9211, Ext. 288, or sondra.cooney@sreb.org
- Barbara Moore, associate director, Making Middle Grades Work, (404) 875-9211, Ext. 296, or barbara.moore@sreb.org

Support for SREB's middle grades network is provided by member states and the Edna McConnell Clark Foundation.

#### About SREB \_\_\_\_\_

The Southern Regional Education Board, the nation's first interstate compact for education, was created in 1948 by Southern governors. SREB helps educational and governmental leaders work cooperatively to advance education and, in doing so, to improve the region's social and economic life.

SREB assists state leaders by directing attention to key issues; collecting, compiling and analyzing comparable data; and initiating studies and discussions that lead to recommendations for state and institutional action.