

## The Vision and Mission of the MSC and the MSC Steering Council

The Math & Science Collaborative (MSC) is Southwestern Pennsylvania's regional approach to strengthening math and science education for all students by coordinating efforts and focusing resources. The Collaborative was formed in 1994 at a regional "congress" of stakeholders. They are all the people and organizations who share a stake in the quality of math and science education, including teachers, school administrators, students, parents, school board members, corporations, foundations, universities, museums and all interested others.

The Math & Science Collaborative now reaches out to include more than 135 public and non-public schools/districts in Allegheny, Armstrong, Beaver, Butler, Fayette, Greene, Indiana, Lawrence, Mercer, Washington, and Westmoreland counties. There is no charge or formal process for "joining" the Collaborative; it is led by the Allegheny Intermediate Unit and supported by federal and state grants and numerous local foundations.

### *Mission*

By working together, Southwestern Pennsylvania can better prepare **all** students to fully participate in the ever-changing future as mathematically and scientifically literate citizens. The Math & Science Collaborative coordinates efforts and focuses resources through innovative, evidence-based, regional approaches to the teaching and learning of mathematics and science from preschool through university.

### *Vision*

All students will be able to apply the language, processes and systems of mathematics and science. Students will demonstrate this power through the quality of their work, which will:

- demonstrate problem-solving and critical thinking skills, requiring both team and individual effort and responsibility;
- involve the application of knowledge as well as its reproduction;
- require disciplined inquiry including an in-depth understanding of a problem and the integration of newly acquired information with the student's prior knowledge;
- have value in its relevance to the student's life and ambitions, offering a feeling of genuine accomplishment;
- require an understanding of the relevance of science and mathematics to innovation, economic development and employment;
- include the development of skills to communicate the results of the work;
- be aligned with national and state standards

To achieve this level of ability and confidence, all students will be engaged in a coherent sequence of active learning experiences, appropriate to their developmental level, that are designed to continually increase their competence, resulting in mathematical and scientific literacy. Valuable learning will occur in both formal environments like schools and universities, and informal environments like museums, parks, non-profits, and homes.

Students will be guided by educators who employ effective, engaging teaching strategies. Assessment of student progress will be utilized to support student learning. Strategies will be continually refined through a system of on-going professional collaboration. Opportunities for professional growth will include collaboration among educators, scientists and mathematicians, community members, and university, foundation and business partners. Resource information will be sought and shared nationally and internationally.

### *Belief Statements about Stakeholder Involvement*

The general public and the many groups in Southwest Pennsylvania affected by or impacting math and science education are referred to as "stakeholders" because their economic future depends on building a productive future for all children.

While the primary responsibility for learning lies with the individual, all stakeholder groups share responsibility for enabling students to achieve educational outcomes that will build productive futures.

Stakeholders can responsibly coordinate their efforts and focus their resources to achieve a desirable future that they envision together.

Every person in a community of learners brings a unique array of life experiences and characteristics to learning. It is the responsibility of that community to motivate each to fully participate to contribute to the learning of both the individual and the group.

Distinctions of geographic location, socio-economic level, ethnicity, race, or gender must not determine the availability of resources that create opportunities to learn.

Working as the Collaborative are teachers, administrators, school board members, parents, and representatives of universities, corporations, museums and other informal educational institutions, non-profits, and foundations.