Tech-know

Instructional Materials for Technological Literacy

Science, Mathematics, and Technology (SMT) literacy is vital to maintaining the economic health of the nation and the well being of its citizens. Given the complexity of our society today, all students need to graduate from high school with adequate literacy in science, mathematics, and technology. The TECH-know Project is funded by the National Science Foundation and represents a significant collaboration between selected state departments of education, universities, businesses, and the Technology Student Association (TSA).

During the next four years teachers from Florida, North Carolina, Oklahoma, and Virginia will contribute to the development of instructional materials that reflect the Standards for Technological Literacy, the National Science Education Standards, and the Principles and Standards for School Mathematics. The instructional materials are based upon selected TSA problems that are challenging, exciting, and of natural interest to students. These materials will be used to teach fundamental science, mathematics, and technology concepts in a fun, engaging, and meaningful way to students across America.

The projected outcomes of the TECH-know project include:

- The publication of high quality instructional materials that enhance the understanding of fundamental science, mathematics, and technology knowledge.
- The development of student creativity and critical thinking skills related to science, mathematics, and technology through the application of problem-based, inquiry-guided pedagogy.
- Positive student attitudes toward science, mathematics, and technology.

Instructional Modules

Middle School

- Cyberspace Pursuit
- Dragster Design
- Digital Photography
- Environmental Challenge
- Flight Challenge
- Mechanical Challenge
- Medical Technologies
- Structural Challenge
- Transportation Challenge
- Agricultural and Biotechnologies

High School

- Desktop Publishing
- Structural Engineering
- Film Technology
- System Control
- Manufacturing Prototype
- Technology Challenge
- RC Transportation
- Medical Technologies
- Sci Vis
- Agricultural and Biotechnologies

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