

Technological Literacy

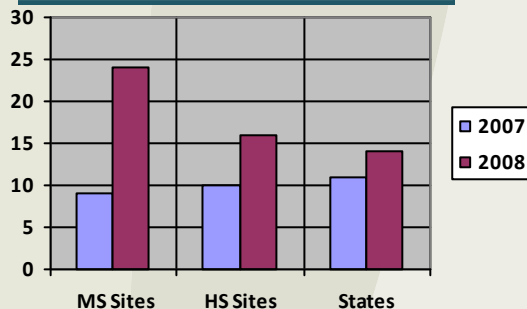
The ability to use, manage, and understand technology.

Creating a National Community of Learners

Supporting School Improvement Goals

- Teachers participate in a network of 65 schools nationwide participating in the Engineering byDesign™ Network
- Teachers communicate online through eTIDEonline to develop exemplars of student work, creating consistency in implementing standards-based materials
- Teachers have flexibility to develop new innovative lessons that contribute to increased student achievement
- For one low cost, teachers participate in the national community of learners and students participate in the online Assessment and Design Challenge

School and State Participation 2007-2008



ENCOURAGING THE NEXT GENERATION
OF ENGINEERS, INNOVATORS AND
TECHNOLOGISTS



Focusing on Student
Achievement Through
Technological Literacy



For More Information Contact

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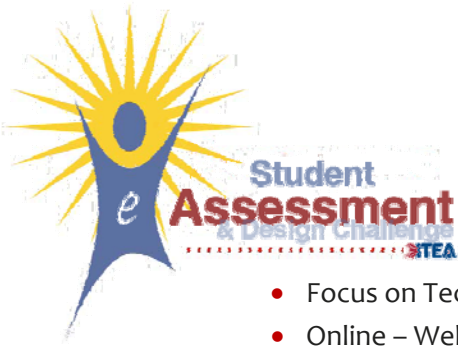


Assessment Solutions for School Improvement



Center to Advance the Teaching of
Technology & Science





- Focus on Technological Literacy
- Online – Web-based
- Hands-on Design Challenge
- Middle & High School
- Grade-level specific
- Standards-based

The Engineering byDesign™ Program is built on the belief that the ingenuity of children is untapped, unrealized potential that, when properly motivated, will lead to the next generation of technologists, innovators, designers, and engineers.

Comprehensive Web-based Assessments

We live in a technological world. Living in the twenty-first century requires much more from every individual than a basic ability to read, write, and perform simple mathematics.

Technology affects every aspect of our lives, from enabling citizens to perform routine tasks to requiring that they be able to make responsible, informed decisions that affect individuals, our society, and the environment.

STANDARDS-BASED ASSESSMENTS

The International Technology Education Association's Center to Advance the Teaching of Technology and Science (ITEA-CATTS) has developed the only standards-based national model for Grades K-12 that delivers technological literacy.

The model program, *Engineering byDesign™ (EbD™)*, is built on *Standards for Technological Literacy (ITEA)*; *Principles and Standards for School Mathematics (NCTM)*; and *Project 2061, Benchmarks for Science Literacy (AAAS)*.

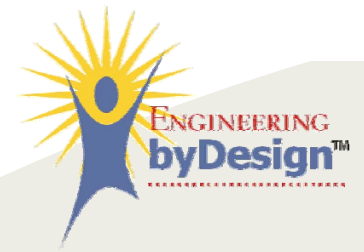


KNOWING & DOING

The EbD™ Student Assessment & Design Challenge is designed to measure the knowing and doing as it relates to technological literacy. Each assessment is delivered in three parts, all relating to achieving

Technological Literacy at the prescribed grade-level. Students engage in a web-based environment with selected response questions. All questions are based directly upon the Technology, Mathematics and Science standards that were used to develop the EbD™ content.

Parts A and B are delivered in a one class period of 45-50 minutes. Part C is the *Design Challenge* where students work together in teams of 3 to identify and construct solutions to a real-world/authentic problem. Upon completion, each student then returns to the online component of Part C, and supplies responses to questions based on the student developed solutions.



- EbD™ Network schools in EbD™ Consortium states are automatically enrolled in the assessments at no cost
- EbD™ Consortium States receive extensive discount on additional seats
- Pre-test and end of course assessments data provided to teachers
- Student achievement associated with the contextual applications of math & science are measured and reported
- Assessment items require students to remember, understand, apply, analyze, evaluate and create

STEM

Science, Technology, Engineering and Mathematics. The EbD™ *Student Assessment & Design Challenge* has been designed to be standards-based, and in so doing is aligned with STEM knowledge and skill standards statements.

UTILIZING THE KNOWLEDGE & COGNITIVE PROCESS DIMENSIONS

Assessments are aligned to ensure that students remember, understand, and can apply the rubrics and criteria identified in the EbD™ standards-based instructional guides. Lessons that are aligned in this way, help to determine whether students have learned the content. Data provided by these assessments provide the teacher with the knowledge that the lesson is aligned with the intent of the objectives or content delivery.

Technology is the basis for improving on the past, and creating the future