Design and Discovery
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Design and Discovery is a free curriculum that introduces youth, ages 11-15, to engineering through design, and helps students create an awareness of the role engineering plays in our society. In an extended sequence of hands-on sessions, students follow a design process and build working prototypes that solve problems in the engineered world.

The *Design and Discovery* curriculum is best implemented in a setting that allows for extended learning—an after-school club, a summer camp, or youth program. The *Design and Discovery* Web site is designed to be a complete resource for organizing and implementing your own program in a school or community setting.

What do students do?

With a focus on the designed world around them, students explore fundamental concepts of design and engineering through hands-on activities. They start by improving on an existing design and wind up developing working prototypes of their own inventions. Along the way, they learn how to wire electronic devices, apply mechanical principles in building a model toy, and develop an eye for improving everyday objects. Students present their prototypes in a design and engineering showcase and are encouraged to enter their final projects in science and engineering fairs.

Why teach design and engineering?

Studying design and engineering gives students an opportunity to look more critically at the world around them and become involved with creating change. Engaging in the design process provides students opportunities to learn about the design and creation of products and strengthen skills in problem solving, creativity, risk-taking, and decision making. The skills and knowledge developed with a design course have wide applicability in everyday life and across a variety of curriculum areas.

The *Design and Discovery* curriculum is focused on motivating youth to become familiar with the design process, to understand related core science content, and to then use this new knowledge to become designers themselves. The curriculum follows a design process that guides working engineers and designers.

How can I implement a Design and Discovery program?

Visit the *Design and Discovery* Web site at www.intel.com/education/design.

You will find everything you need to know about organizing your own successful program using the free curriculum and implementation resources. Complete plans for the 18 sessions (a total of 45 hours of hands-on, inquiry-based activities) include clear directions for the activities, resources for leaders and mentors, ideas for field trips, and accompanying readings to engage young learners.

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