



## Program Overview

The Club Invention program is a weeklong summer enrichment program that partners with schools across the country to reinforce the traditional school year with science, technology, engineering, and math (STEM) activities through inquiry-based, hands-on activities.

Taught by local educators, each Club Invention program consists of four modules, which comprise 32.5 hours of programming. Typically delivered in five consecutive 6.5-hour days, all four modules align with national and state education standards and are designed to meet the needs of varying age groups through primary and intermediate activities.

## The INNOVATE Program

Children explore new types of energy to help power robotic creatures during the **Power'd™** module. A week of building, powering, and exploring the capabilities of their own fantasy creatures, children investigate wind, solar, and hydro power. The excitement builds as children make discoveries about electrical power and circuits by tinkering with motors, batteries, and other engaging materials. Children are introduced to renewable and nonrenewable energy sources as they build and explore the roles of mathematics and physics in design and engineering.

The **Hatched™** module utilizes the concept of computer virtual worlds to engage children in economic and entrepreneurial work. During the week, children create and "sell" items that will benefit their avatars' lives and the *Hatched* virtual world. This module uses supply and demand as well as needs and wants to guide children towards a better understanding of how these principles work in the real world. During the week, children use creative and critical-thinking skills, cooperative groups, and communication to engage in the restoration of the *Hatched* virtual world.

In the **I Can Invent: Balloon Burst™** module, participants dismantle broken machines from home using real tools and create multi-step inventions that they name and prepare to market. Participants use science, creative problem solving, and hands-on applications to further their inventiveness and critical-thinking skills. Working in teams, younger participants focus on balloon breaking machines that break a water balloon on a target, while older participants create multi-step, Rube Goldberg-type water balloon breaking machine.

The **Action and Adventure Games™** module scores a home run by combining physical activity and creativity. Children practice teamwork, cooperation, coordination, and creative problem solving processes during fun, energetic games. Action and Adventure Games activities are based on the premise that traditional games can be modified using nontraditional approaches. Employing the concept of upcycling, children use found materials to create completely new games. Unlike competitive games or sports, this module stresses creative problem solving, rather than winning or losing, while boosting self-confidence and encouraging active physical participation.