Illuminate

A program for rising 1st through 6th graders

CAMP INVENTION OVERVIEW

The Camp Invention program is a week-long summer enrichment program that partners with schools across the country to reinforce the traditional school year with Science, Technology, Engineering and Mathematics (STEM) concepts through inquiry-based, hands-on engagement.

Taught by local educators, the Camp Invention program is comprised of 32.5 hours of programming, designed to be delivered over five, consecutive 6.5-hour days. Other scheduling options are available to meet your unique requirements. Aligned to education standards, the Camp Invention program is designed to meet the needs of both primary and intermediate students.

2015 CAMP INVENTION NATIONAL PROGRAM: ILLUMINATE

INDUCTED™

National Inventors Hall of Fame (NIHF) Inductees deliver personalized, invention-based challenges, connecting participants directly with the individuals who bring STEM into our homes, schools, work places and lives. Featuring inventors who have excelled in areas from medical technology to digital music, their challenges give children the opportunity to innovate in relevant and meaningful ways that prepare them to change the world. Building on the stories of more than ten Inductees who have already made their mark on the world, Inducted™ makes STEM real for kids.

- Explores marine science through an underwater archaeological challenge, building a marine exploration vehicle and racing to collect bioluminescent specimens
- Increases understanding of how shape and structure influence a building's strength and physical integrity through a materials science investigation, as well as building a mega-tower using rolled newspaper crossbeams
- Engages children in rocket science through the challenge of building and launching a space rocket powered by the stomp of their foot, as well as creating the ideal trajectory to land a rocket on both fixed and moving targets

DESIGN STUDIO: ILLUMINATE™

Design Studio: Illuminate™ is a creativity and innovation laboratory, where children have the opportunity to dream, tinker, prototype, take risks and make discoveries. They can invent from scratch, find inspiration through investigating circuits or take on a nature-inspired design challenge. Participants explore mathematics from a new angle as they create origami flight models and engage in tangram-based team building. The dynamic relationship between invention, innovation and entrepreneurship reveals itself as children move from sketching prototypes to bringing them to market.

- Promotes self-directed learning and builds self-confidence by allowing children to pick from activities throughout the program week
- Inspires children by introducing them to Collegiate Inventors Competition Finalists—real-world, invention and entrepreneruship role models
- Fosters creativity and innovation skills through challenges based on design thinking, extending the boundaries and participating in brainstorming and idea selection sessions

Camp Invention®

I CAN INVENT: NEXT LEVEL GAMERS™

Children reverse engineer high-tech components from non-working devices to build their own physical video game model in the 3rd dimension! Camp Invention Gaming Labs need their help creating the next mega-hit video game, MazeWorld. Upcycling and re-powering gears, motors, magnets and other gadgetry, they prototype patent-worthy worlds that will earn them the title: Next Level Gamers™. Participants score high in literacy skill building as they develop rich storylines for their villain and superhero characters, as well as their strategic pursuit to overcome obstacles.

- Provides an authentic STEM exploration as teams apply reverse engineering to disassemble broken appliances and redesign them into prototypes of a MazeWorld video game level
- Uses spatial relationships and problem solving skills to construct and navigate mazes
- Engages children in product-based, entrepreneurial thinking through video game design while considering user-friendliness, game-play operation, aesthetic appeal and functionality
- Increases understanding of the value of Intellectual Property and the roles that patents, trademarks and copyrights play in the landscape of invention and innovation

KARTWHEEL™

Children use design engineering to create a freestyle race kart that can traverse the ultimate wet obstacle course. Alongside building their physics skills through daily Hydrochallenges, like Lever Launch and Super Sling, racers also build their economics skills as they earn points and spend them in the Hardware Store on materials to upgrade their rides. In a grand finale, children's STEM skills glide them across the finish line to see who will be the most extreme KartWheel™ racer!

- Enlists the 21st century skills of teamwork, communication and collaboration to develop methods to complete challenges by listening and evaluating each other's ideas
- Enhances skills in entrepreneurship, mathematics and reasoning as children earn points during daily Hydrochallenges, ration and spend them to purchase kart parts at the Hardware Store and calculate their savings
- Employs the practical application of STEM skills to build a working kart that will withstand water and navigate the obstacle course as a team to achieve the fastest speed

M.O.V.E.: MOTION, OBSTACLES, VARIETY, EXCITEMENT™

Children stretch their imagination and reach for the stars as they get in motion, overcome obstacles, make variations to classic games and build excitement in M.O.V.E.! Teamwork, cooperation and coordination are exercised during this series of fun, high-energy games that promote 21st century thinking and moving. Participants strategize and problem solve their way to self-confidence through this kinesthetic experience of recess…reinvented.

- Increases the type of physical activity that has a relationship with improved academic performance
- Enhances understanding of advanced science concepts through kinesthetic play, allowing children to further explore academics through hands-on games
- Encourages strategic communication and team collaboration with diverse partners, building on others' ideas and the clear, persuasive expression of ideas as games are reinvented

Programs with more than 90 participants run M.O.V.E. Camps with fewer than 90 participants participate in exciting team-building kinesthetic games during their lunch break.

Camp Invention®