



Camp Invention<sup>®</sup>

# ILLUMINATE



**THIS IS  
INVENTION EDUCATION  
IN ACTION.**

Camp Invention® is an acclaimed hands-on STEM program that provides a turnkey system for bringing invention education to students.

# HANDS-ON STEM PROGRAMMING

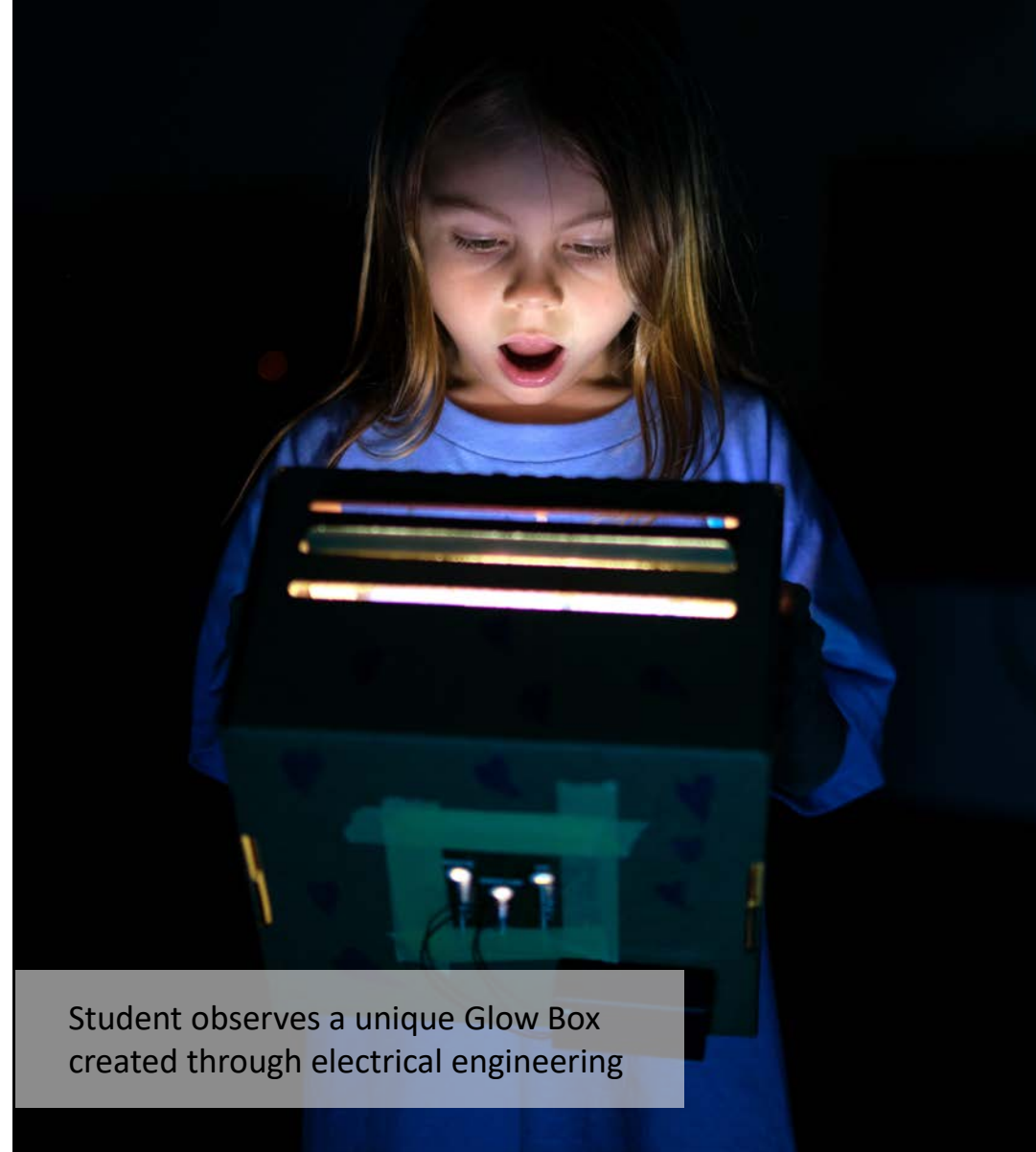


Student learns about innovation through hands-on development of prototypes

- An engaging, nationally recognized K-6 program
- Authentic invention education to children for more than 30 years
- Brand-new curriculum is developed and tested each year
- Hands-on experiences that encourage divergent thinking
- Backed by independent research
- Designed to spark imaginations through open-ended engagement in creative problem solving

# Innovative Experiences

- Foster critical thinking, collaboration and creativity through authentic STEAM experiences
- Practice empathy, and build confidence and persistence through real-world challenges
- Engage children through high-energy activities and active participation in learning experiences
- Cultivate educator's innovative mindset through job-embedded professional development



Student observes a unique Glow Box created through electrical engineering

# Turnkey Implementation



NIHF-provided materials support innovation and creativity.

- All-inclusive program curriculum and materials
- All materials shipped in classroom sets from our warehouse to your program location
- Personalized support and resources ensure a positive experience
- Step-by-step curriculum guide and online resources reduce prep time

# Flexible & Immersive Curriculum

- Four all-new, themed modules with hands-on activities every year
- Curriculum differentiated for primary and intermediate levels
- Aligned to state, Common Core and Next Generation Science Standards



Physics and fun come together as students explore motion and momentum with In the Game.

# ALL-NEW 2024 STEM MODULES

Four confidence-boosting modules spark imagination and innovation through hands-on challenges and open-ended exploration.



Physics, engineering and entrepreneurship with a sports ball, board game and building a brand.



Biophysics, optics, and electrical engineering involved in illuminating inventions and glowing animals.



Ingenuity and global connections through water quality exploration with a mobile robotic laboratory.



Prototyping and design thinking as it relates to the invention and the innovative process.



**IN THE GAME™**



# Module Overview: IN THE GAME

**IN THE GAME** gives students the chance to be innovative all-stars as they engineer their own light-up ball game. After creating a unique sports ball, they explore the physics of motion, then find out how to protect their ideas with intellectual property and reach the goal of being inducted into the Game of Fame!

- **PHENOMENA EXAMPLE:** Ball dissection through media, physics of catching and throwing various balls into Game Board
- **LIFE SKILLS CONCEPTS:** Creative and critical thinking, speaking and listening, reasoning and problem solving, risk-taking
- **MATH CONCEPTS:** Calculating scores, probability
- **LITERACY CONCEPTS:** STEM vocabulary, presentation of knowledge and ideas, making inferences, reading and writing in Inventor Log
- **WHAT THEY TAKE HOME:** Game Board: a tabletop game, sports ball, sporting equipment prototype



# Module Overview: IN THE GAME



## CURRICULUM HIGHLIGHTS

THIS MODULE EMPHASIZES THESE ASPECTS OF THE I CAN INVENT MINDSET:



Engaging in hands-on exploration of physics and materials science through STEM.



Building entrepreneurship skills by creating a brand and looking at target audience.



Gaining intellectual property literacy by designing a logo.



TEST INCLINES  
AND GRAVITY





**LET'S GLOW™**

# Module Overview: LET'S GLOW

In **LET'S GLOW**, students learn about biophysics, optics and electrical engineering as they discover illuminating inventions and engineer their own one-of-a-kind Glow Box. They investigate how light works in LEDs, fiber optics and even glowing animals. With ultraviolet light, they uncover clues to reveal a mystery, using the power of light to help their ideas shine.

- **PHENOMENA EXAMPLE:** Light refraction experiments, light and foil reflection, streaking petri dishes with UV paint
- **LIFE SKILLS CONCEPTS:** Decision-making, goal setting, problem solving, collaboration and communication, persistence
- **LITERACY CONCEPTS:** STEM vocabulary, reading and following instructional text in Inventor Log, sharing of ideas and hypotheses, ask and answer questions, multiple styles of media to communicate information
- **WHAT THEY TAKE HOME:** Glow Box: a proprietary box with white and UV LED light strips wired to a double-sided circuit board and slides featuring their designs



# Module Overview: LET'S GLOW

## KEY SKILLS AND CONCEPTS

Circuitry

Electrical Engineering

Molecular Biology

Optics

## CURRICULUM HIGHLIGHTS

THIS MODULE EMPHASIZES THESE ASPECTS OF THE I CAN INVENT MINDSET:



Exploring STEM concepts like genetic engineering and the physics of light while experimenting with glowing materials.



Practicing persistence while building and wiring a Glow Box.



Applying design thinking to create and refine a unique and personalized Glow Box.





# **OPERATION: HYDRODROP™**



# Module Overview: OPERATION: HYDRODROP

In **OPERATION: HYDRODROP**, students embark on an epic global operation to explore and solve water challenges around the world. They personalize their own light-up robotic Lab-on-Wheels inspired by cutting-edge marine science technology. Using creative problem solving, they engineer solutions to filter and clean water, becoming hydro heroes.

- **PHENOMENA EXAMPLE:** Drought and flooding, water filtration
- **LIFE SKILLS CONCEPTS:** Resilience, reasoning and problem solving, interpersonal skills, speaking and listening
- **MATH CONCEPTS:** Calculating water usage of various crops and making comparisons
- **LITERACY CONCEPTS:** Diagramming and writing about invention, reading and writing in Inventor Log, comprehension and collaboration, STEM vocabulary, ask and answer questions, making inferences, cause and effect
- **WHAT THEY TAKE HOME:** Lab-on-Wheels: a mobile laboratory with a light-up robotic base, model tiny house with crops, water-solution prototypes



# Module Overview: OPERATION: HYDRODROP

## KEY SKILLS AND CONCEPTS

Creative Problem Solving

Global Awareness

Environment

Robotic Technology

## CURRICULUM HIGHLIGHTS

THIS MODULE EMPHASIZES THESE ASPECTS OF THE I CAN INVENT MINDSET:



Using creative problem solving to identify novel solutions to real-world water challenges.



Building confidence to affect change through invention.



Using STEM to innovate a better future.



Embark on a  
global adventure



# PROTOTYPING STUDIO™

# Module Overview: PROTOTYPING STUDIO

Students step into the **PROTOTYPING STUDIO** where they are empowered to mold and transform their ideas into unique inventions. They find inspiration in how Our Nation's Greatest Innovators™ invented their first prototypes, then they build their own toolbox to fill with useful tools and take it home to keep on inventing anything, anywhere.

- **PHENOMENA EXAMPLE:** Non-standard materials, materials exploration
- **LIFE SKILLS CONCEPTS:** Curiosity, flexibility, cooperation, collaboration and communication
- **MATH CONCEPTS:** Calculating cost of goods and materials
- **LITERACY CONCEPTS:** Reading and writing in Inventor Log, presentation of knowledge and ideas, divergent thinking and fluency
- **WHAT THEY TAKE HOME:** Toolbox: a functional and personalized toolbox with a cardboard safety saw and a tape measure, rapid design prototypes



# Module Overview: PROTOTYPING STUDIO

## KEY SKILLS AND CONCEPTS

Rapid Prototyping

Idea Fluency

Tool Usage

Pitching Ideas

## CURRICULUM HIGHLIGHTS

THIS MODULE EMPHASIZES THESE ASPECTS OF THE I CAN INVENT MINDSET:



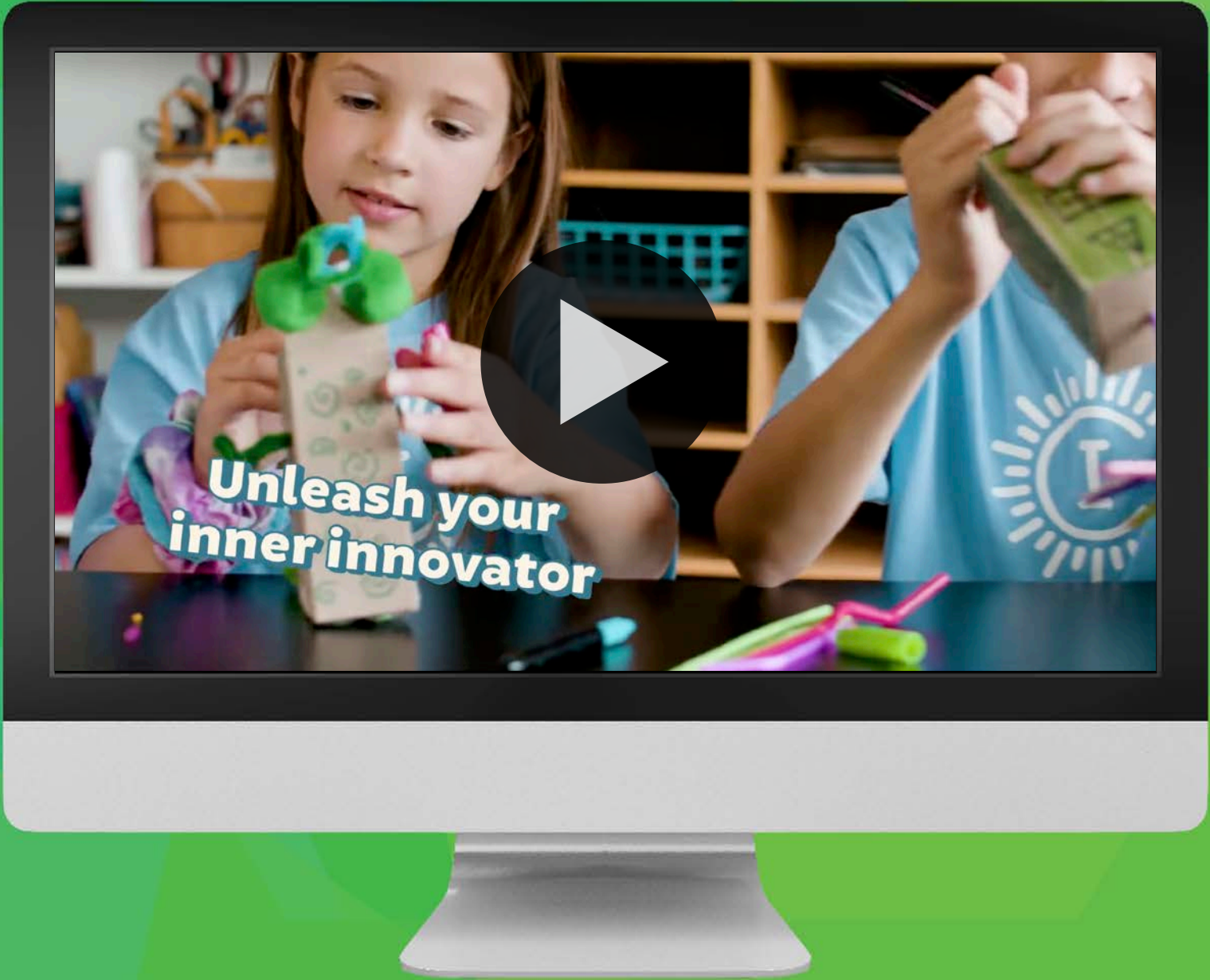
Building confidence through bringing invention prototypes from idea to reality.



Using design thinking to consider the user and uses of an invention.



Exploring the places, tools and techniques of innovators to discover their own process of innovation.



**Unleash your  
inner innovator**

# Meeting Your Districts' Unique Needs



- A customizable program to fit a variety of summer schedules
- All materials delivered in classroom sets
- A classroom set covers a singular space with up to 25 participants
- A customizable curriculum, supplements and pacing guides

	IN PERSON
Hands-On	✓
Collaborative	✓
Program Materials	✓
Camp Invention T-Shirt	✓
Technology Needed	✓
Instructor-Led	✓
Outdoor Fun	✓
Socialization	✓



# Customizable Implementation: Full Day

The National Inventors Hall of Fame® offers flexible programming that can stand alone or be embedded in district/school summer programming. Your dedicated National Inventors Hall of Fame representative will work with you to build a customized schedule that fits your specific needs.

<b>Full Day Schedule Based On One Week</b>	<b>TIME</b>	<b>DAILY</b>
	9:00-9:15	Check-In
	9:15-10:25	District Led (Math)
	10:25-10:30	Sanitize Hands
	10:30-11:35	In the Game
	11:35-12:00	Lunch
	12:00-1:00	District Led (ELA)
	1:00-1:45	Let's Glow
	1:45-2:30	Operation: HydroDrop
	2:30-3:15	Prototyping Studio
3:15-3:20	Dismissal	

# Customizable Implementation: Half Day

Half Day Schedule Based on Four Weeks				
TIME	WEEK ONE	WEEK TWO	WEEK THREE	WEEK FOUR
9:00-9:15	Check-In	Check-In	Check-In	Check-In
9:15-10:30	In the Game	Let's Glow	Operation: HydroDrop	Prototyping Studio
10:30-10:35	Sanitize Hands	Sanitize Hands	Sanitize Hands	Sanitize Hands
10:35-12:00	District Led (ELA, Math)	District Led (ELA, Math)	District Led (ELA, Math)	District Led (ELA, Math)

1 Week	Full Day 6 hours per day
2 Weeks	Half Day 3 hours per day
4-5 Weeks	60-90 minutes per day

# WHAT'S INCLUDED

		Camp Invention Provides	District or Host Site Provides
Program Preparation	Promotional Tools (digital flyers, posters and social media content are provided)	✓	✓
	Exceptional support provided by Regional Representatives	✓	✓
Implementation Support	Materials, curricula and Instructor Guide for 32.5 hours of programming	✓	✓
	Materials delivered to the program location in classroom sets	✓	✓
	Samples of daily schedules and prerecorded videos	✓	✓
	Camp Invention T-shirt for participants and Program Team Members	✓	✓
Site Coordination	Classroom or physical space	✓	✓
	Program Team Member recruitment	✓	✓
	Program Team compensation	✓	✓
	Distribution of promotional materials	✓	✓
	Participant registration	✓	✓



## INSTRUCTOR TESTIMONIALS

"I think Camp Invention is just as important for the teachers as the students. This is a **great opportunity for teachers to learn about inquiry** in a well mapped out and fun environment. Leading this summer program gives teachers the **hands-on experience** to incorporate inquiry into their classroom during the school year and provides the exact supports for teaching in a truly 21st-century model."

NICOLE F., AKRON, OHIO

"Camp Invention is a wonderful, hands-on experience for children. As a teacher, I **consistently learn new techniques to engage students** in learning and gaining deeper knowledge of the material."

DEBBIE Y., COLUMBIA, SOUTH CAROLINA

"I **get so many ideas of ways to level up my own teaching and get students more engaged in thinking**. I love how much creating kids are able to engage in during the week. They learn quickly to try new ideas, and collaborate in ways I don't usually see using traditional lessons."

BETHANY V., DALLAS, GEORGIA



## EMBEDDED PROFESSIONAL DEVELOPMENT

### Supporting Educators With Transferable Strategies

Camp Invention includes embedded professional development, preparing educators with hands-on learning strategies they can easily transfer from this STEM program to their day-to-day classroom.

Through hands-on experience, we provide educators with the tools and best practices they need to instill essential 21st-century skills, promote empathy and teamwork, and help students build the I Can Invent® Mindset.

**According to a recent post-camp survey of Directors and Instructors who were involved in Camp Invention:**

- **97%** will take an experiential, **hands-on** approach to learning
- **97%** have enhanced their knowledge of **STEM application**
- **97%** will **integrate** different disciplines and subject areas
- **98%** will use **open-ended inquiry** as an instruction technique
- **99%** will create **problem-solving** challenges for their students
- **98%** will foster **risk taking** in their classrooms

*Data collected from 2022 Camp Invention Instructor and Director Surveys*

# LET'S BUILD YOUR CUSTOM PROGRAM

- What are your specific program goals?
- How many hours/days/weeks of programming do you need?
- When do you plan to run the program?
- How many classrooms are you planning to support?
- How many students/teachers are you planning to support?

ARE YOU READY TO GET STARTED?

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**REACH OUT TO ME TODAY!**



Camp Invention<sup>®</sup>