Innovation Exploration Kit™

ACCESSIBLE STEM ACTIVITIES
HANDS-ON, SELF-LED LEARNING
GRDES K-9

FROM THE CREATORS OF CAMP INVENTION® – A NATIONAL INVENTORS HALL OF FAME® EDUCATIONAL PROGRAM
Deliver STEM Exploration and DIY Fun

At the National Inventors Hall of Fame® (NIHF), we understand the challenges educators and families are experiencing this school year. Our Innovation Exploration Kits™ offer a simple, affordable solution.

Delivering the hands-on invention education we have provided for 30 years, our kits include everything students need to complete engaging activities and build 21st-century skills in self-led, at-home and blended settings.

**Easy Implementation**
- Deliver a complete set of high-quality materials in each kit
- Provide step-by-step guides to help children complete each activity
- Offer access to digital assets for optional enhancements to the experience

**Innovative Experiences**
- Emphasize creative problem solving through real-world challenges
- Encourage STEM exploration through hands-on activities
- Introduce confidence-building lessons from the world’s greatest innovators

**Equitable Solutions**
- Provide a full experience for each child, regardless of internet access
- Support independent exploration with no need for educator involvement
- Foster curiosity, creativity and authentic engagement among all students
At NIHF, we believe every child can invent. Through open-ended, hands-on exploration, our programs help children build an Innovation Mindset—a growth mindset infused with lessons from world-changing inventors—to enable and empower them in any area of life.

The Innovation Mindset is made up of nine essential skills and traits that are strengthened every time a child applies them. Each Innovation Exploration Kit highlights different aspects of this mindset, guiding students to unlock their potential and discover the magic of their own creativity.

**INNOVATION EXPLORATION KITS**

**I CAN INVENT™ SERIES, K-6**
With real robots in each kit, students engage in our most popular hands-on activities, from coding to reverse engineering.
- Innovation
- Persistence
- Design Thinking
- STEM

**ELEVATE SERIES, K-6**
Four inspiring kits lead students on a journey exploring principles of flight, sports innovations, real environmental challenges and more.
- Design Thinking
- Creative Problem Solving
- Intellectual Property
- Entrepreneurship

**INNOVATION FORCE® LIMITED EDITION KIT, K-6**
Imaginative activities help students build confidence in their creativity as they design superhero personas, disguises and gadgets.
- Innovation
- Confidence
- Creative Problem Solving
- STEM

**INVENTION PROJECT® SERIES, 6-9**
Young innovators gain valuable skills as they explore entrepreneurship, design futuristic clothing, build simple robots and more.
- Confidence
- Persistence
- Entrepreneurship
- Intellectual Property
I CAN INVENT®

INNOVATION EXPLORATION KIT™

CREATIVE ACTIVITIES WITH CAMP INVENTION’S BEST BOTS

This robust series delivers the most popular activities from past Camp Invention® K-6 programs. Each one includes a different robot and provides opportunities for hands-on exploration. The experience begins with our Starter Set, and additional kits can be added for more fun and learning.

PRICING:
$175 for the bundle of all five kits
$65 for the Starter Set
$45 for each additional kit if purchased separately
INNOVATION FORCE® AND BOT ANN-E™: STARTER SET

Children dive into the I Can Invent series as they:

- Receive all the necessary supplies to create superhero disguises and gadgets, including a device that picks up toxic sludge (SLIME!).
- Unbox a high-tech agricultural robot named Bot ANN-E, and all the tools they need to complete fun challenges.
- Follow step-by-step instructions to code their robot to plant seeds and navigate landscapes they’ve created.

MATERIALS

<table>
<thead>
<tr>
<th>AAA batteries</th>
<th>Federico Faggin figure</th>
<th>Slime</th>
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</thead>
<tbody>
<tr>
<td>Beads (red and white)</td>
<td>Inventor Log</td>
<td>Step-by-step activity guides</td>
</tr>
<tr>
<td>Bot ANN-E robot</td>
<td>Markers</td>
<td>String</td>
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<tr>
<td>Bot ANN-E sheet</td>
<td>Mask</td>
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<tr>
<td>Cape</td>
<td>Masking tape</td>
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<tr>
<td>Cardboard connectors</td>
<td>Packing paper</td>
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<tr>
<td>Comic book</td>
<td>Pencil</td>
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<tr>
<td>Copy paper</td>
<td>Putty</td>
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<tr>
<td>Cord lock</td>
<td>Safety glasses</td>
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<tr>
<td>Duct tape</td>
<td>Safety saw</td>
<td></td>
</tr>
<tr>
<td>Farm animal figure</td>
<td>Scissors</td>
<td></td>
</tr>
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<tr>
<td>Farm animal figure</td>
<td>Scissors</td>
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</tbody>
</table>

For more information, visit invent.org/kits
OPTIBOT™

Children prepare to navigate the future as they:

• Receive self-driving robots and everything they need to make tracks the robots can follow.

• Build creativity and persistence by personalizing, modifying and testing their Optibots.

• Explore how sensors are used in automated systems like the ones in self-driving cars.

MATERIALS

Adhesive gems
Black permanent marker
Clay
Colored permanent markers
Copy paper
Exploring With Optibot sheet

Finger flashlights
Inventor Log
Masking tape
Ocean stickers
Optibots
Paper cups
Pencil

Spec sheets
Step-by-step activity guide

For more information, visit invent.org/kits
Robotic pet vet™

Robotics and veterinary science combine as children:

• Receive two robotic dogs – one to take apart and diagnose, and one to personalize.

• Unbox all their hands-on materials and build a dog park using simple machines.

• Follow step-by-step instructions to investigate dog anatomy and perform surgery.

MATERIALS

AA batteries
Adhesive fur
Adhesive gems
Craft sticks
Fur templates
Foam blocks
Masking tape
Inventor Log
Operation table sheet
Pencil
Robotic dog
Safety glasses
Scissors
Screwdrivers
Step-by-step activity guide

For more information, visit invent.org/kits
DIY ORBOT™

Children take on exciting challenges as they:

- Receive all the materials they need to customize and operate remote-controlled robots.
- Build perseverance by completing a series of tasks with their robots.
- Explore lessons in reverse engineering and the invention process.

**MATERIALS**

- AAA batteries
- Button batteries
- Certification stickers
- Copy paper
- Craft sticks
- DIY Orbot face stickers
- DIY Orbots with remotes
- Foam blocks
- Googly eyes
- Inventor Log
- Masking tape
- Pencils
- Pipe cleaners
- Safety glasses
- Scissors
- Screwdriver
- Step-by-step activity guide
- Table tennis ball
INNOVATION EXPLORATION KIT™

ELEVATE SERIES

CURiosity Takes Flight With Exciting Challenges

Our Elevate series lets children’s imaginations soar. Students in grades K-6 are introduced to world-changing inventors, practice divergent thinking and explore a different theme in each of four kits, from flight and sports innovations to intellectual property and environmental science.

PRICING:
$115 for all four kits

ACTIVITY GUIDES:
Available in both English and Spanish
Children become game-changing innovators as they:

• Receive everything they need to design and build the ultimate sports complex.

• Collect Inventor Trading Cards to discover the inspiring stories of inventors who have shaped the world of sports.

• Follow step-by-step instructions to incorporate simple machines into tabletop games.

**MATERIALS**

<table>
<thead>
<tr>
<th>Camp Invention Champions™</th>
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</thead>
</table>

- Ball bearing
- Balloon cups and sticks
- Bendable straws
- Bungee cord
- Button magnets
- Champions Box
- Coffee stirrers (wooden paddle-shaped)
- Cord locks
- Foam ball
- Innovation Dream Team Trading Cards
- Inventor Log
- Jumbo craft sticks
- Markers
- Masking tape

- Netting
- Pencil
- Plastic game piece stand
- Player silhouette sheets
- Playing surface sheets

- Scissors
- Step-by-step activity guide
- Triangular paper clips
Children begin to see themselves as capable creators and entrepreneurs when they:

- Engage in activities that build design thinking skills, empathy and persistence.
- Gain tools and experiences that will help them understand the value of intellectual property.
- Follow step-by-step instructions to sketch ideas, build prototypes, design logos and make pitches.

**MATERIALS**

<table>
<thead>
<tr>
<th>Black paper</th>
<th>Scissors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black permanent marker</td>
<td>Step-by-step activity guide</td>
</tr>
<tr>
<td>Clay</td>
<td>The Creator’s Key to Intellectual Property poster</td>
</tr>
<tr>
<td>Clay tool</td>
<td>Tracing paper</td>
</tr>
<tr>
<td>Deal cards sheet</td>
<td>White chalk</td>
</tr>
<tr>
<td>Design Thinking Portfolio</td>
<td>Pressman controller</td>
</tr>
<tr>
<td>Inventor Log</td>
<td>patents sheet</td>
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<tr>
<td>Markers</td>
<td></td>
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<tr>
<td>Masking tape</td>
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</tr>
<tr>
<td>Patent drawings sheet</td>
<td></td>
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<tr>
<td>Patterned duct tape</td>
<td></td>
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<tr>
<td>Pencil</td>
<td></td>
</tr>
<tr>
<td>Pipe cleaners</td>
<td></td>
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<tr>
<td>Plastic base</td>
<td></td>
</tr>
<tr>
<td>Ruler</td>
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</tbody>
</table>

**OTHER MATERIALS**

- Transparencies
- Video game controller
Children earn their wings as they:

- Take apart and customize a high-tech flight simulation robot.
- Follow step-by-step instructions to investigate the inner workings of their robot.
- Receive everything they need to experiment with principles of flight, such as lift and thrust.

**MATERIALS**

- AA batteries
- Classic paper airplane sheets
- Classic paper airplane instructions
- Feathers
- Flight Inductee Book
- Hand-copter
- Inventor Log
- LINK accessory stickers
- LINK robot
- Pencil
- Safety glasses
- Screwdriver
- Step-by-step activity guide
- Straw
- Washi tape
Creative thinking helps protect the planet as children:

- Follow step-by-step instructions to construct parachutes and safely airdrop wildlife.
- Receive all the materials they need to design and create an energy-efficient LED plant.
- Take on environmental challenges and practice creative problem solving to restore balance in nature.

**MATERIALS**

- Animal figure
- Brown crinkle paper
- Clothespins
- Coin battery
- Craft stick
- Felt flower
- Flowerpot
- Glowing Garden Book
- Green painter’s tape
- Inventor Log
- Leaf template
- Lei flower
- Markers
- Masking tape
- Paper muffin cup
- Pencil
- Rainbow LED
- Rescue Squad temporary tattoo
- Resealable plastic bag
- Scissors
- Silver conductive tape
- Step-by-step activity guide
- String
IMAGINATIVE ACTIVITIES AT AN AFFORDABLE PRICE

This kit delivers superhero-themed activities meant to engage and inspire children in grades K-6. Available for a limited time, this kit has flexible delivery options and price points.

PRICING:

Centralized Delivery: $10 per kit, 1-3 delivery sites

Decentralized Delivery: $12 per kit, multiple (up to 30) delivery sites

Home Delivery: $16 per kit, delivered directly to student’s home address

ACTIVITY GUIDES:

Available in both English and Spanish
INNOVATION FORCE®
LIMITED EDITION

Children unlock their creative superpowers as they:

• Design and create their own superhero persona and disguise to join the Innovation Force - a team of heroic inventors.

• Receive a series of fun worksheets to put their superpowers to the test.

• Get immersed in the Supercharged Comic Book story starring our NIHF Hall of Famers.

MATERIALS
Cape
Cardboard connectors
Mask
Pip lizard figure
Pip activity cards
Slime
Step-by-step activity guide
Supercharged Comic Book

WORKSHEETS
Hall of Famer activity sheet (3)
Hall of Famer quiz challenge sheet (5)
Innovation Force quiz
Math worksheet

National Inventors Hall of Fame Inductee Emmett Chappelle is a biochemist. Chappelle studied bioluminescence - an organism's ability to produce and emit light. He figured out how to use this super power of nature to create bioluminescence techniques that would allow us to detect life on Mars and monitor crops here on Earth.

INVENT.ORG/CAMP

Living Light
Emmett Chappelle figured out that the number of bacteria in water could be measured by the amount of light they were giving off. Find the 10 pairs of matching bacteria in this petri dish.

Color the Glow
Firefly Maze
A firefly can light up when oxygen is added to the other chemicals in its light organ. Get the oxygen to the firefly's light organ, so that it can light up!

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Electret microphones look like this. Circle all the electret microphones you can see on the page! How many can you find?

Sound waves bounce all around a room! Did you know that our ears funnel sound, squeezing it into a small space to make it louder?

MAKE SOME NOISE!
Visit each room in your home. What objects do you see that could make noise? How could you combine them to make interesting sounds?
Experiment with materials in your house to amplify or quiet the sounds you make. How can you make them louder or softer?

SOLVE THE CODE!
KEY:
A B C D E F G H I
J K L M N O P Q R
S T U V W X Y Z

National Inventors Hall of Fame® Inductee Jim West is an expert in acoustics - the branch of physics that studies the science of sound and how it travels. He and his coworker, Gerhard Sessler, invented the electret microphone. His microphone is tiny, lightweight and inexpensive. Ninety percent of today's microphones are electret microphones. They are used in everyday items like phones, tablets and hearing aids. In fact, almost everything on this page has an electret microphone in it!

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REAL-WORLD CHALLENGES BUILD CONFIDENCE AND SKILLS

This inspiring set of four at-home activity kits delivers the hands-on fun of Camp Invention and elevates it to engage students in grades 6-9. Each kit is packed with all the materials innovators need to take on exciting challenges and build perseverance and goal-setting skills.

PRICING:
$135 for all four kits

ACTIVITY GUIDES:
Available in both English and Spanish
E-Racer Bots™

Children develop persistence as they:

- Create simple robots using a motor and eraser.
- Use vibration to make their robots move through trial and error.
- Gain insight on advanced batteries from Collegiate Inventors Competition® Finalists.

**MATERIALS**

- Binder clips
- Chart paper
- Coin batteries
- Corks
- Erasers
- E-Racer bots sheet
- Feathers
- Large paper clips
- Markers
- Masking tape
- Pencil
- Pushpins
- Rubber bands
- Scissors
- Small paper clips
- Step-by-step activity guide

- Vibrating motors
- Webbing Out sample sheet
FLY GLIDERS™

Imagination takes off as children:

- Receive all the materials they need to explore flight, inspired by NIHF Inductees Orville and Wilbur Wright.
- Experiment with an electronic heliball and airplane structural design.
- Build a rescue plane prototype and explore the role of wing shape and nose weight in an airplane’s trajectory.

**MATERIALS**

- Hand-copter
- Classic paper airplane sheet
- Colored copy paper
- Markers
- Masking tape
- Paper clips
- Scissors
- Heliball
- Masking tape
- Safety glasses
- Step-by-step activity guide
RC ORIGAMI BOT™

Children explore new possibilities as they:

• Receive all the materials they need to construct and operate a remote-controlled robot.
• Apply creative thinking to transform their bots from 2D figures to 3D objects.
• Explore remote-control technology, including the use of medical robots.

**MATERIALS**

- AA batteries
- Black permanent marker
- Markers
- Masking tape
- RC Origami Bot Kit
- Safety glasses
- Scissors
- Screwdriver
- Step-by-step activity guide
- Transparent tape
Children bring innovative ideas to life as they:

- Use creative problem solving to engineer clothing of the future to function in extreme weather.

- Follow step-by-step instructions to protect their idea, draft a business plan and launch a powerful pitch.

- Receive complete materials and inspiration from NIHF Hall of Famers to tap into their creativity.

**MATERIALS**

- Adhesive notepad
- Business Basics sheet
- Coin batteries
- Conductive thread
- Copy paper
- Fabric
- Feathers
- Felt
- Go-to-Market sheet
- LEDs
- Markers
- Masking tape
- Pencil
- Pipe cleaners
- Recyclables
- Scissors
- Sewable sequin lights
- Sewing needle with cork
- Step-by-step activity guide
- The Creator’s Key to Intellectual Property poster
- Threader
- Umbrella
- Wear It Out sheet
KEEP STUDENTS ENGAGED WITH ACTIVITY KITS

TO LEARN MORE, CONTACT:
800-968-4332
NIHFatmyschool@invent.org
invent.org