Invention Project®
GRADES K-6

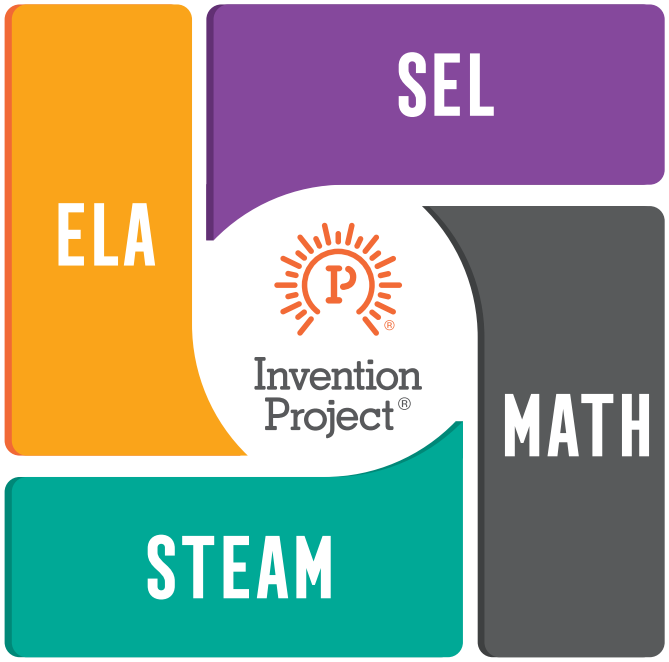
ENGAGING CURRICULUM

FOR IN-SCHOOL, AT-HOME AND BLENDED LEARNING

FROM THE CREATORS OF CAMP INVENTION® – A NATIONAL INVENTORS HALL OF FAME® EDUCATIONAL PROGRAM

CREATIVE SOLUTIONS FOR YOUR SCHOOL YEAR

Invention Project® K-6 is an immersive invention education program. This cross-cutting curriculum complements classroom lesson plans and provides effective, hands-on learning experiences for in-school, at-home and blended settings. Aligned to State, Common Core State Standards and Next Generation Science Standards, Invention Project K-6 supports social-emotional learning (SEL) and sparks imaginations through open-ended exploration of STEAM concepts.



"The activities and the skills that students learn at Invention Project really **TRANSFER TO THE OUTSIDE WORLD.** They're encouraged to come up with ideas, brainstorm, hypothesize and make mistakes - **IT'S ALL PART OF THE LEARNING PROCESS!**"

TANIA G., COMMONS ELEMENTARY SCHOOL

FLEXIBLE CURRICULUM

- Features 10 robust units with a total of 30 sessions spanning 22.5 hours
- Includes pre- and post-assessments
- Adapts to blended learning scenarios with program extensions for at-home learning, with or without internet access

K-6 DIFFERENTIATION

- Guiding questions and discussions aid in age-appropriate reflection and learning
- Level-specific reading handouts assist with comprehension and boost the fun-factor with nature-themed content
- Additional program assets are differentiated for Primary and Intermediate participants, in order to support children in age-appropriate sketching and writing

TURNKEY IMPLEMENTATION

- Step-by-step curriculum guide, rubric and comprehensive instructor guide
- Materials for hands-on and collaborative learning
- Recommended book list for extension
- Dedicated National Inventors Hall of Fame (NIHF) support

SOCIAL-EMOTIONAL LEARNING

- Builds competency in decision-making, self management and social awareness
- Enhances empathy and relationship skills
- Provides opportunities to practice speaking and listening skills

PRICE - $1,625 FOR CLASSROOM SET*

*Classroom set includes 25 individual student material packs, shipped to one location. Additional $10/student if shipping direct to homes.

Note: Sample of product only.
See unit curriculum for full product list.

THE INNOVATION MINDSET

At the National Inventors Hall of Fame, we believe every child can invent. With our programming, you can lead your students to build an Innovation Mindset – a growth mindset infused with lessons from world-changing inventors. This mindset is made up of nine essential skills and traits that are instilled through hands-on, open-ended exploration and strengthened through application.

Implemented as a set of 10 units with activities that can adapt to different grade levels, Invention Project K-6 equips educators to foster each aspect of the Innovation Mindset, enabling students to unlock their full potential, discover the power of their creativity and overcome challenges in any area of life.

INVENTION PROJECT UNITS

Ecosystem Exploration
Children investigate North American ecosystems, compete in zipline races and learn the importance of following a formula for making good decisions.
⬣ **Design Thinking**

Nature's Engineering
Applying their creative problem-solving skills, children experiment to safely airdrop animals, build beaver dams and restore balance in nature.
⬣ **Creative Problem Solving**

Lights: Bioluminescence and LEDs
New concepts are illuminated as children create their own glowing flowers, explore circuits and experiment with self-management tools.
⬣ **Persistence**

Water Pollution
Children develop water filtration solutions to clean up a vulnerable habitat and build self-awareness through journaling.
⬣ **Innovation**

Earth and Human Activity
Children build and test prototypes of litter clean-up devices and practice empathy while considering environmental pollution challenges.
⬣ **Confidence**

Designers and Inventors
Children experience a rapid round of the Camp Invention Design Thinking Process™, develop their teaming skills and discover the value of portfolios during job interviews while making their own.
⬣ **Design Thinking**

Empathy and Design Thinking
As children build empathy through problem solving, they learn to see themselves and each other as capable creators and entrepreneurs.
⬣ **Entrepreneurship**

Scale, Decisions and Prototypes
For an in-depth understanding of the prototyping process, children engage in hands-on construction while considering scale, explore materials science and practice decision making.
⬣ **STEM**

Reflect and Protect
Discovering the power and purpose of intellectual property, children refine their prototypes, complete a patent application and design their own logo.
⬣ **Intellectual Property**

Pitching, Listening and Deals
Children gain confidence and practice their speaking and listening skills as they develop and deliver an exciting, persuasive product pitch.
⬣ **Confidence**

INVENTION PROJECT K-6 STANDARDS

Each unit provides
INTERACTIVE TOOLS AND SCRIPTS
for flexible in-school, at-home and blended settings.

	ANCHOR STANDARDS	Ecosystem Exploration	Nature's Engineering	Lights: Bioluminescence and LEDs	Water Pollution	Earth and Human Activity	Designers and Inventors	Empathy and Design Thinking	Scale, Decisions and Prototypes	Reflect and Protect	Pitching, Listening and Deals
	UNITS										
NGSS	STEAM	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Common Core	Reading			✓				✓			
	Writing				✓					✓	
	Speaking and Listening					✓					✓
	Math	✓							✓		
	College and Career Readiness		✓				✓				
Social-Emotional Learning	Self-Awareness				✓					✓	
	Self Management			✓							✓
	Social Awareness					✓		✓			
	Relationship Skills		✓				✓				
	Responsible Decision-Making	✓							✓		

View Invention Project K-6 Standard Alignments

ECOSYSTEM EXPLORATION

KEY SKILLS AND CONCEPTS

- Earth and Human Activity
- Measurement and Data
- Cause and Effect
- Ethical Responsibility
- Evaluation and Reflection

UNIT OVERVIEW

In this unit, students become members of the Rescue Squad™, a team of environmental heroes. They design and build Squad Pods to race across a zipline, make eco-friendly choices and delve into mathematical principles that will help them improve their designs.

CURRICULUM HIGHLIGHTS

THIS UNIT EMPHASIZES THESE INNOVATION MINDSET HABITS:

STEM — Exploring STEM principles to help them compete in zipline races.

DESIGN THINKING — Applying design thinking skills to create a nature-inspired Squad Pod.

CREATIVE PROBLEM SOLVING — Using creative problem solving to make environmentally responsible choices that can be implemented in the real world.

ANCHOR STANDARDS

IN THIS UNIT, STUDENTS EXPLORE:

- STEAM
- Math
- Responsible Decision-Making

NATURE'S ENGINEERING

KEY SKILLS AND CONCEPTS

- Testing Materials and Properties
- Analyzing and Interpreting Data
- Environmental Engineering
- Forces and Motion
- Teamwork

UNIT OVERVIEW

Students practice creative problem solving as they work to restore balance in nature. They build parachutes to safely airdrop wildlife into a river and engineer beaver dams to help boost the survival rates of salmon, all while learning about environmental careers.

CURRICULUM HIGHLIGHTS

THIS UNIT EMPHASIZES THESE INNOVATION MINDSET HABITS:

CREATIVE PROBLEM SOLVING

Applying creative problem-solving skills to solve real-world ecological challenges.

DESIGN THINKING

Exercising design thinking while constructing environmentally helpful tools.

INNOVATION

Testing innovative ideas and strategies to protect wildlife and their habitats.

ANCHOR STANDARDS

IN THIS UNIT, STUDENTS EXPLORE:

- STEAM
- College and Career Readiness
- Relationship Skills

LIGHTS: BIOLUMINESCENCE AND LEDS

KEY SKILLS AND CONCEPTS

- Energy
- Circuitry
- Phonics and Word Recognition
- Energy Transfer
- Stress Management

UNIT OVERVIEW

This unit challenges students to create glowing plants that will light a park's pathways without disturbing animals. As they read informational text about living creatures and plants that produce their own light, students also experiment with circuits and investigate helpful ways to cope with stressful situations.

CURRICULUM HIGHLIGHTS

THIS UNIT EMPHASIZES THESE INNOVATION MINDSET HABITS:

PERSISTENCE — Developing persistence while learning strategies to overcome challenges and manage stress.

STEM — Exploring STEM concepts including bioluminescence and using this knowledge to inform design choices.

CONFIDENCE — Gaining confidence while experimenting with technology and exercising creativity.

ANCHOR STANDARDS

IN THIS UNIT, STUDENTS EXPLORE:

- STEAM
- Reading
- Self Management

WATER POLLUTION

KEY SKILLS AND CONCEPTS

- Ecosystems: Interactions, Energy and Dynamics
- Systems and System Models
- Vocabulary Acquisition and Use
- Identifying Emotions
- Recognizing Strengths

UNIT OVERVIEW

Students learn how they can apply their ingenuity to change the world as they clean polluted water using water filtration and purification methods. While applying their writing skills to communicate with a City Engineer, students engage in meaningful conversations about how their emotions can influence their behavior and relationship to environmental issues.

CURRICULUM HIGHLIGHTS

THIS UNIT EMPHASIZES THESE INNOVATION MINDSET HABITS:

INNOVATION — Practicing innovation by addressing real-world challenges involving water pollution.

STEM — Exploring STEM concepts while learning about environmental science and technology.

DESIGN THINKING — Building design thinking skills while writing instructions for building a water pipe system.

ANCHOR STANDARDS

IN THIS UNIT, STUDENTS EXPLORE:

- STEAM
- Writing
- Self-Awareness

EARTH AND HUMAN ACTIVITY

KEY SKILLS AND CONCEPTS

- Engineering Design
- Human Impacts on Earth Systems
- Presentation of Knowledge and Ideas
- Global Citizenship
- Comprehension and Collaboration

UNIT OVERVIEW

Students are motivated to actively protect the planet as they build a trash removal device out of upcycled materials, pitch a campaign to eliminate plastic pollution, and explore social activism and empathy toward nature. Several activities guide students to understand the power of their global citizenship.

CURRICULUM HIGHLIGHTS

THIS UNIT EMPHASIZES THESE INNOVATION MINDSET HABITS:

CONFIDENCE — Building confidence while developing a campaign to help the Earth.

CREATIVE PROBLEM SOLVING — Using creative problem solving to identify responsible, empathetic solutions.

INNOVATION — Practicing innovation by creating devices meant to improve global conditions.

ANCHOR STANDARDS

IN THIS UNIT, STUDENTS EXPLORE:

- STEAM
- Speaking and Listening
- Social Awareness

DESIGNERS AND INVENTORS

KEY SKILLS AND CONCEPTS

- Engineering Design
- Career Exploration
- Communication
- Comprehension and Collaboration
- Presentation of Knowledge and Ideas

UNIT OVERVIEW

Students are immersed in the Camp Invention Design Thinking Process™ as they construct their very own video game controller out of clay. They learn about the importance of building a portfolio to present their ever-evolving work, collaborate with their peers, and develop and pitch their controller designs while practicing their presentation and public speaking skills.

CURRICULUM HIGHLIGHTS

THIS UNIT EMPHASIZES THESE INNOVATION MINDSET HABITS:

CONFIDENCE — Gaining confidence through public speaking and collaboration with others.

ENTREPRENEURSHIP — Practicing entrepreneurship by creating a portfolio and delivering a pitch.

DESIGN THINKING — Using design thinking techniques to create a unique video game controller.

ANCHOR STANDARDS

IN THIS UNIT, STUDENTS EXPLORE:

- STEAM
- College and Career Readiness
- Relationship Skills

EMPATHY AND DESIGN THINKING

KEY SKILLS AND CONCEPTS

- Asking Questions and Defining Problems
- Developing Possible Solutions
- Vocabulary Acquisition and Use
- Phonics and Word Recognition
- Empathy

UNIT OVERVIEW

Students discover the fundamentals of innovation through the fun story about Pip the gecko. While building their reading comprehension skills, students explore Prior Art to find inspiration for improving on inventions from the past, learn how to overcome obstacles and sketch solutions for challenges people face every day.

CURRICULUM HIGHLIGHTS

THIS UNIT EMPHASIZES THESE INNOVATION MINDSET HABITS:

Developing entrepreneurship skills while learning the importance of original ideas and patent protections.

Demonstrating persistence to overcome obstacles to innovation.

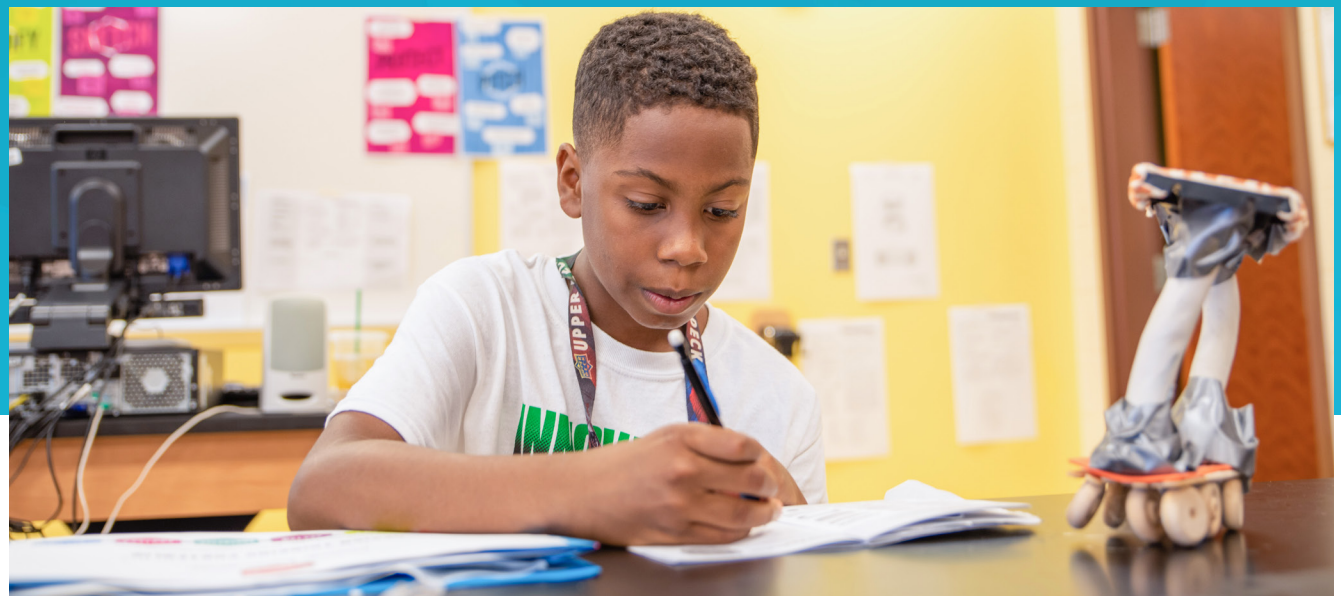
Applying creative problem solving to identify inventive solutions to everyday problems.

ANCHOR STANDARDS

IN THIS UNIT, STUDENTS EXPLORE:

- STEAM
- Reading
- Social Awareness

SCALE, DECISIONS AND PROTOTYPES



KEY SKILLS AND CONCEPTS

- Materials Science
- Structures and Properties of Matter
- Measurement and Data
- Developing and Using Models
- Analyzing Situations

UNIT OVERVIEW

This unit gets students excited to engage in the prototyping process, guiding them to create detailed, scaled drawings of their invention ideas. Exploring materials science, students learn how to determine which resources they should use in the construction of their prototypes.

CURRICULUM HIGHLIGHTS

THIS UNIT EMPHASIZES THESE INNOVATION MINDSET HABITS:

STEM — Applying STEM concepts to create invention prototypes.

INNOVATION — Modifying prototypes and learning that innovation and improvement are always possible.

DESIGN THINKING — Using design thinking to develop solutions to real-world problems.

ANCHOR STANDARDS

IN THIS UNIT, STUDENTS EXPLORE:

- STEAM
- Math
- Responsible Decision-Making

REFLECT AND PROTECT

KEY SKILLS AND CONCEPTS

- Engineering Design
- Production of Writing
- Vocabulary Acquisition and Use
- Identifying Emotions
- Recognizing Strengths

UNIT OVERVIEW

Students realize the power of intellectual property as they refine their inventions and follow the steps to protect their work with a patent. They complete a mock Patent Application, receive their very own patent pending stamp, reflect on the value of their creations and design trademark-worthy logos.

CURRICULUM HIGHLIGHTS

THIS UNIT EMPHASIZES THESE INNOVATION MINDSET HABITS:

Learning the fundamentals of intellectual property by following the patent process.

Overcoming challenges and improving upon ideas through hard work and creativity.

Seeing themselves as capable entrepreneurs as they brand their inventions.

ANCHOR STANDARDS

IN THIS UNIT, STUDENTS EXPLORE:

- STEAM
- Writing
- Self-Awareness

PITCHING, LISTENING AND DEALS

KEY SKILLS AND CONCEPTS

- Defining and Delimiting Engineering Problems
- Presentation of Knowledge and Ideas
- Knowledge of Language
- Organizational Skills
- Impulse Control and Self-Discipline

UNIT OVERVIEW

Each activity in this confidence-boosting unit prepares students for entrepreneurial success. They learn how to craft the perfect pitch and deliver their presentations to earn Deal Cards – exciting offers from potential investors.

CURRICULUM HIGHLIGHTS

THIS UNIT EMPHASIZES THESE INNOVATION MINDSET HABITS:

CONFIDENCE — Building confidence and practicing public speaking while pitching inventions.

ENTREPRENEURSHIP — Developing entrepreneurship skills by learning how to promote and sell ideas to potential investors.

INNOVATION — Practicing innovation and developing creative presentations to promote their ideas

ANCHOR STANDARDS

IN THIS UNIT, STUDENTS EXPLORE:

- STEAM
- Speaking and Listening
- Self Management

CUSTOMIZE A SOLUTION FOR YOUR DISTRICT TODAY!

TO LEARN MORE, CONTACT:

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Title

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National Inventors Hall of Fame®

Inspiring Future Innovators®

In partnership with uspto UNITED STATES PATENT AND TRADEMARK OFFICE

The National Inventors Hall of Fame provides STEM education programs for young innovators from PreK through grade 12.