Camp Invention® | Spark Curricula Highlights

Fur-ensics™

In **Fur-ensics**, campers sharpen their detective skills and discover how forensic science is used to solve crimes as they conduct their own critter crimes investigation. They explore the inner robotics of their capybara, create clever sleuthing gadgets and build critical thinking skills as they collect evidence to forensically analyze and narrow down their suspects.

- **PHENOMENA EXAMPLES:** Crime scene analysis, DNA evidence exploration, fingerprinting, microscope investigation
- **CAREER CONNECTIONS:** Animal caretaker, detective, forensic scientist, forensic photographer, lab technician
- **LIFE SKILLS:** Critical thinking, decision-making, reasoning and problem solving, speaking and listening, teamwork
- **MATH CONCEPTS:** Operations and algebraic thinking
- **LITERACY CONCEPTS:** Alliteration, compare and contrast, deductive reasoning, figurative language, phonemic awareness, rhyming
- **WHAT THEY TAKE HOME:** Robotic capybara with accessories

Make Waves™

In **Make Waves**, campers explore exciting entrepreneurship concepts, make ocean discoveries and ride the waves of innovation as they learn how to commercialize their inventions, from generating ideas to pitching invention prototypes to investors. They conduct hands-on buoyancy experiments, “make waves” in the market with customer research and build an innovative billboard boat to hook their target audience.

- **PHENOMENA EXAMPLES:** Buoyancy, flotation, mass, mechanical energy, surface tension, waves
- **CAREER CONNECTIONS:** Entrepreneur, graphic designer, market researcher, materials scientist, product designer
- **LIFE SKILLS:** Creative thinking, curiosity, evaluating impacts, goal setting, persistence, resilience
- **MATH CONCEPTS:** Counting and cardinality, geometry, measurement and data
- **LITERACY CONCEPTS:** Adjectives, analogy, conducting research, context clues, facts vs. opinions, metaphor
- **WHAT THEY TAKE HOME:** Personalized floating billboard boat

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Space Morphers™

Space Morphers launches campers on a mission to terraform a new planet for human habitation as they create inventions to transform its atmosphere, terrain and ecosystem. After building their own DIY rocket, they study Earth's systems, collect samples in a high-energy relay challenge, review data and record their observations in their Space Lab.

- **PHENOMENA EXAMPLES:** Animal egg hatching, crystal formation, fluorescence and ultraviolet light, rocket flight
- **CAREER CONNECTIONS:** Aerospace engineer, astrobiologist, data scientist, geologist, planetary scientist
- **LIFE SKILLS:** Analyzing information, collaboration and communication, flexibility, planning and organization skills
- **MATH CONCEPTS:** Analyzing and interpreting data, counting and cardinality, measurement
- **LITERACY CONCEPTS:** Cause and effect, compare and contrast, ideation, research and investigation
- **WHAT THEY TAKE HOME:** DIY Space Rocket with Solar Sail prototype

The Infringers™

In **The Infringers**, campers spark the superpowers of the I Can Invent® Mindset, design and create an invention that solves a challenge in their community and learn how to protect their intellectual property with various security tools. They brainstorm, design and miniaturize a top-secret invention, design a wearable device that incorporates cryptography and file a provisional patent to safeguard designs from the Infringers.

- **PHENOMENA EXAMPLES:** Exploring time through sun, light and sensors
- **CAREER CONNECTIONS:** Cryptography engineer, cybersecurity data scientist, microfabrication engineer, technologist
- **LIFE SKILLS:** Cooperation, creative thinking, identifying solutions, persistence
- **MATH CONCEPTS:** Analyzing and interpreting data, counting and cardinality, measurement, operations and algebraic thinking
- **LITERACY CONCEPTS:** Characterization, compare and contrast, inferencing, symbolism
- **WHAT THEY TAKE HOME:** Wearable wrap bracelet device with accessories