



Spark!Lab Dr. InBae Yoon

Invent It Challenge

Think about a new and innovative way to provide natural disaster preparation or relief.

Follow the Spark!Lab 7-step Process of Invention:



Why take part in the Invent It Challenge?

Students:

- Learn how an inventor thinks!
- Share your invention with the world!
- Meet other inventors!

Teachers:

- Engage students in a motivational STEM learning experience
- Bring Smithsonian expertise and resources into your classroom
- Get free ready-to-use teaching materials

Who can take part?

Challengers may enter individually or as part of a team in the following 4 age groups:

Age group 1: 5-7 years

Age group 3: 11-13 years

Age group 2: 8-10 years

Age group 4: 14-21 years

Visit challenges.epals.com for complete entry details and official rules.

Prize Providers



Smithsonian



Camp Invention

FABER-CASTELL
since 1761



Nelson Mullins
Nelson Mullins Riley & Scarborough LLP

Timeline

| January 31 | April 9 | May 8 | May 22* | June 28-30 |
|----------------------------------------|------------------------|----------------------|----------------------------------|------------------------|
| Official Start (Kid Inventor's Day) | Submission Deadline | Winners Announced | ePals Choice Winner Announced | Winners Trip to DC* |

*Winners trip to DC includes workshops and a celebratory dinner with the Yoon family.

Standards Alignment: Invent It Challenge



Smithsonian
Institution

| ISTE NETS'S Standards http://www.iste.org/standards/standards-for-students | Next Generation Science Standards http://www.nextgenscience.org | National Association for Environmental Education Guidelines for Excellence http://bit.ly/2dZuaAO | 21st Century Learning Standards www.p21.org | Common Core State Standards for English Language Arts www.corestandards.org | STEAM www.steamedu.com |
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| <ol style="list-style-type: none"> 1. Creativity and Innovation 2. Communication and Collaboration 3. Research and Information Fluency 4. Critical Thinking, Problem Solving, and Decision Making | <p>Dimension 1: Practices Asking questions; Developing and using models; Planning and carrying out investigations; Analyzing and interpreting data; Constructing explanations and designing solutions; Engaging in argument from evidence; Obtaining, evaluating and communicating information</p> <p>Dimension 2: Crosscutting Concepts</p> <ul style="list-style-type: none"> Cause and Effect Systems and system models Energy and Matter: Flows, cycles, and conservation Stability and Change <p>Dimension 3: Disciplinary Core Ideas</p> <p>Life Science LS2: Ecosystems: Interactions, Energy, Dynamics</p> <p>Earth Science ESS2-Earth's Systems</p> <p>Physical Science PS3 Energy</p> <p>Engineering & Technology ETS1 Engineering Design</p> | <p>Strand 1: Questioning, Analysis, and Interpretation Skills</p> <p>Strand 2: Knowledge of Environmental Processes and Systems</p> <p>Strand 3: Skills for Understanding and Addressing Environmental Issues</p> <p>Strand 4: Personal and Civic Responsibility</p> | <p>Learning and Innovation Skills</p> <ul style="list-style-type: none"> Creativity and Innovation Critical Thinking and Problem Solving Communication and Collaboration <p>Information, Media and Technology Skills</p> <ul style="list-style-type: none"> Information Literacy Media Literacy ICT (Information, Communications and Technology) Literacy <p>Life and Career Skills</p> <ul style="list-style-type: none"> Initiative and Self-Direction Productivity and Accountability | <p><u>CCSS.ELA -Literacy.CCRA.W.4</u> Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.</p> <p><u>CCSS.ELA -Literacy.CCRA.W.6</u> Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.</p> <p><u>CCSS.ELA -Literacy.CCRA.W.7</u> Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.</p> <p><u>CCSS.ELA -Literacy.CC RA.W.8</u> Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.</p> <p><u>CCSS.ELA -Literacy.CC RA.W.9</u> Draw evidence from literary or informational texts to support analysis, reflection, and research.</p> <p><u>CCSS.ELA -Literacy.CC RA.SL.5</u> Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.</p> | <p>Science</p> <ul style="list-style-type: none"> Conduct scientific inquiry through the Spark!Lab Process of Inquiry <p>Technology</p> <ul style="list-style-type: none"> Conduct online research Communicate an invention idea through a digital presentation <p>Engineering</p> <ul style="list-style-type: none"> Solve a problem Design an invention Build a prototype <p>Arts</p> <ul style="list-style-type: none"> Imagine and sketch an invention Create a 3-D prototype <p>Math</p> <ul style="list-style-type: none"> Measure and create a scale model of the invention Analyze data to refine invention |