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

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

1. Think It
2. Sketch It
3. Explore It
4. Create It
5. Try It
6. Tweak It
7. Sell It

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 2:** 8-10 years
- **Age group 3:** 11-13 years
- **Age group 4:** 14-21 years

Prize Providers

- Smithsonian
- Cricket
- National Innovation Convention And Entrepreneurship Exposition
- Nelson Mullins Riley & Scarborough LLP
- Faber-Castell

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

Timeline

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
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<tbody>
<tr>
<td>Official Start</td>
<td>January 31</td>
</tr>
<tr>
<td>(Kid Inventor’s Day)</td>
<td></td>
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<tr>
<td>Submission Deadline</td>
<td>April 9</td>
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<tr>
<td>Winners Announced</td>
<td>May 8</td>
</tr>
<tr>
<td>ePals Choice Winner Announced</td>
<td>May 22*</td>
</tr>
<tr>
<td>Winners Trip to DC*</td>
<td>June 28-30</td>
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</tbody>
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*Winners trip to DC includes workshops and a celebratory dinner with the Yoon family.
## Standards Alignment: Invent It Challenge

### 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

### 21st Century Learning Standards
www.p21.org

### Common Core State Standards for English Language Arts
www.corestandards.org

### STEAM
www.steamedu.com

#### 1. Creativity and Innovation
- Strand 1: Questioning, Analysis, and Interpretation Skills
- Creativity and Innovation
- CCSS.ELA-Literacy.CCRA.W.4
  Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

- Strand 2: Knowledge of Environmental Processes and Systems
- Critical Thinking and Problem Solving
- CCSS.ELA-Literacy.CCRA.W.6
  Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.

- Strand 3: Skills for Understanding and Addressing Environmental Issues
- Communication and Collaboration
- CCSS.ELA-Literacy.CCRA.W.7
  Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation.

- Strand 4: Personal and Civic Responsibility
- Information Literacy
- CCSS.ELA-Literacy.CCRA.W.8
  Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.

- Information, Media and Technology Skills
- Media Literacy
- CCSS.ELA-Literacy.CCRA.W.9
  Draw evidence from literary or informational texts to support analysis, reflection, and research.

- Life and Career Skills
- ICT (Information, Communications and Technology) Literacy
- CCSS.ELA-Literacy.CCRA.SL.5
  Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.

### Science
- Conduct scientific inquiry through the Spark!Lab Process of Inquiry
- Conduct online research
- Communicate an invention idea through a digital presentation

### Technology
- Solve a problem
- Design an invention
- Build a prototype

### Engineering
- Imagine and sketch an invention
- Create a 3-D prototype

### Arts
- Measure and create a scale model of the invention
- Analyze data to refine invention

### Math
- Measure and create a scale model of the invention
- Analyze data to refine invention

#### 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 form evidence; Obtaining, evaluating and communicating information

#### Dimension 2: Crosscutting Concepts
- Cause and Effect
- Systems and system models
- Energy and Matter: Flows, cycles, and conservation
- Stability and Change

#### Dimension 3: Disciplinary Core Ideas
- Life Science
  - LS2: Ecosystems: Interactions, Energy, Dynamics
- Earth Science
  - ESS2-Earth’s Systems
- Physical Science
  - PS3 Energy
- Engineering & Technology
  - ETS1 Engineering Design

#### Strand 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 form evidence; Obtaining, evaluating and communicating information

#### Strand 2: Knowledge of Knowledge of Environmental Processes and Systems
- Critical Thinking and Problem Solving
- Communication and Collaboration

#### Strand 3: Skills for Understanding and Addressing Environmental Issues
- Information Literacy
- Media Literacy
- ICT (Information, Communications and Technology) Literacy

#### Strand 4: Personal and Civic Responsibility
- Initiative and Self-Direction
- Productivity and Accountability

#### Strand 1: Questioning, Analysis, and Interpretation Skills
- Creativity and Innovation
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