2016 5th Annual Global

Invent It Challenge

Smithsonian

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Think about a real-world health problem and come up with a solution.

Teacher Resource Pack

Everything you need to support student participation in the 2016 Spark!Lab Invent It Challenge.

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TIPS!

Invention is all about solving problems, so the first step is to identify a health problem or challenge you want to work on. (This is sometimes the hardest step in the invention process!) Look around you – what health challenges do you see at school or in your community? Ask friends, teachers, and family members about health issues that are important to them. Look at your local newspaper to learn about the health issues that people in your community are talking about. Observe health issues around you and jot them in a notebook. You can also try searching the Internet to learn more about health issues in other countries. Talk to someone who works in the healthcare field, like a doctor, nurse, physical therapist, or nutritionist. If possible, talk through what you've discovered in partners and groups with other students to spark more ideas. The best invention ideas often address problems that affect lots of people.

If you've identified a health problem that affects many people around you (or even around the world), you're probably not the first inventor to try to solve it! Don't let this discourage you. Instead, do some research to learn how others have addressed the problem. What do you like about their solutions? What do you think you can improve? How can your invention be different? Many inventions build and improve on ones that have come before. Think carefully about who your invention helps and make sure your idea clearly solves the identified problem. Identify specific features and benefits of your invention that improve on inventions of the past.

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Once you have a basic concept of what your invention will be, make some simple sketches of your idea. These do not have to be perfect or artistic. Sketches simply help you take the idea in your head and put it on paper. Sketches can help you think through not only what your invention will look like, but how it will work. You may want to make several sketches of your invention – from the front, side, looking down from above, or from the inside to show how it works. Be sure to label your sketches to explain how the various parts and pieces function.

For many inventors, this is the most fun part of the invention process! This is where you create a prototype, or model, of your invention. Using your sketches as a guide, you'll build your first prototype. Remember, this doesn't have to be perfect or even work! It's just the next step in the process and allows you to take your concept and put it into three-dimensional form. To build your model, try to use materials that you already have. Items from your recycling bin and scraps from other projects can be great resources. Remember the model does not need to actually work, but it should show others what the pieces and parts look like. Capture video or photos of the steps you take in building your prototype or model.

Once your prototype is finished, ask friends, teachers, parents, and neighbors to try it. It's even better if you ask people you interviewed in the Think it step or someone who is affected by the health challenge you're trying to solve. What do they like? What suggestions do they have for making your invention better? Be sure to write down what they say about your invention so you have good notes for the next step of the process. If possible, perform some experiments to find out how well you prototype works. Write down the results of each test.

Think about a real-world health problem and come up with a solution.

Using the feedback you got in the Try it step, identify ways you can improve your invention. Do you want to modify the design or change the materials it's made from? Do you want to add a new part to your invention, or take something away to make it simpler? Many inventors try and tweak and then try again to keep improving their idea until they get it just the way the want it!

Once you have your final invention idea, you want people to start using it! How will you convince others to use your invention? Create a "fact sheet" or a video or written pitch about your invention. What health problem does it solve? How is it different from other inventions? Who is your "target audience"? Who should use your invention? How does it work? Answer these questions to explain how your invention will lead to a healthier future!

GOOD LUCK!

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Key Steps of the Invention Process

Invention is all about solving problems, so your first step is to identify a health problem or challenge you want to work on. Look around you – what health challenges do you see at school or in your community? Ask friends, teachers, family members, or even your doctor or a nurse, about health issues that are important to them. Make a list, and choose the one that you want to help solve.

If you've identified a health problem that affects many people around you (or even around the world), you're probably not the first inventor to try to solve it! Do some research to learn how others have addressed the problem. What do you like about their solutions, and what do you think you can improve? Think about what your invention will do, who it will be for, and how it will be different from any of the other inventions you read about.

Once you have a basic plan for your invention, make some simple sketches of your idea to show how it might work. Sketching helps you get the idea out of your head and onto paper where you can really see it!

For many inventors, this is the most fun part of the invention process! This is where you create a prototype, or model, of your invention. Using your sketches as a guide, build a prototype. Creating your prototype will help make your ideas visible to others.

Once your prototype is finished, ask friends, teachers, parents, and neighbors to try it or review it. It's even better if you test it with someone who is affected by or interested in the health challenge you're trying to solve. What suggestions do they have for making your invention better?

Using the feedback you got in the Try It step, identify ways you can improve your invention. Keep working on your invention!

Once you've created your invention, you want people to start using it! How will you convince others to try your invention? Think about your target audience. Then create a "fact sheet" or a video or a written pitch about your invention. What health problem does it solve? Who should actually use it? How does it work? How is it different from other inventions? Answer these questions to explain how your invention will lead to a healthier future!

HEALTH TOPICS & RELATED RESOURCES

Use these ideas and resources to spark your health inventions!

Nutrition: Eating a well-balanced diet is one of the most important ways that kids and adults can stay healthy and maintain a healthy weight. What can you invent to help others make smart food choices?

Resources:

- Dietary Guidelines
- ChooseMyPlate.gov; SuperTracker
- Read the Label Youth Campaign

Importance of Sleep: Getting a good night's sleep helps you to be a better student and more effective in your afterschool activities. What can you invent that will help others sleep better or get the recommended amount of sleep each night?

Resources:

- http://www.cdc.gov/sleep/about_sleep/how_much_sleep.htm
- http://www.cdc.gov/sleep/about_sleep/sleep_hygiene.htm
- https://www.nhlbi.nih.gov/files/docs/public/sleep/healthy_sleep_atglance.pdf

Prevention of Disease Spread: Handwashing is the number one way to help anyone from getting sick. Create something that would remind kids and adults to wash their hands often to prevent infection and foodborne illness. What else can you invent that will help prevent the passing of germs?

Resources:

- PSA: Alvin and the Chipmunks
- Henry the Hand
- http://www.cdc.gov/handwashing/
- http://www.cdc.gov/healthywater/hygiene/hand/handwashing-family.html

Screen Time: Kids and adults should keep their screen time (TV, videos, apps) to no more than two hours a day (excluding school or office work). Can you think of an invention that would help people maintain healthy screen time limits? What can you invent to solve health problems caused by too much time in front of a TV, computer or gaming screen?

Resources:

- http://www.nhlbi.nih.gov/health/educational/wecan/reduce-screen-time/
- https://www.nichd.nih.gov/msy/materials/Pages/needMSY_infographic.aspx
- http://www.fns.usda.gov/sites/default/files/limitscreen.pdf

Street Safety: What could you invent to make our roads, sidewalks, and crosswalks safer for kids who walk, bike or roll around the neighborhood.

Resources:

- http://www.saferoutesinfo.org/
- http://www.cdc.gov/motorvehiclesafety/pedestrian_safety/index.html
- http://www.cdc.gov/features/pedestriansafety/index.html

Healthy Functioning: A disability is any condition of the body or mind that makes it more difficult for the person with the condition to do certain activities. Some examples of disabilities include challenges such as difficulty lifting, reaching, or walking, inability to see or hear well, and difficulty learning by reading or doing math or staying focused. As a result, many people with disabilities have unique challenges to being healthy, active, and part of the community. Invent a tool that helps people with disabilities to stay well, remain active and be part of the community.

Resources:

- http://www.cdc.gov/ncbddd/disabilityandhealth.html
- http://www.nchpad.org/
- http://www.aahd.us/

Dental Health: Tooth decay occurs in half of all children by age 5. Better diet choices and oral hygiene practices can help. What can you invent to help kids and adults take care of their gums and teeth?

Resources:
http://www.cdc.gov/OralHealth/children_adults/child.htm
http://www.nidcr.nih.gov/OralHealth/OralHealthInformation/ChildrensOralHealth/ToothDecayProcess.htm?_ga=1.160420671.305208996.1447967666
https://science.education.nih.gov/supplements/nih2/oral-health/default.html

Sports Safety: Playing sports and games can be fun—and good exercise! But, playing too hard can cause exhaustion, dehydration, overheating, or injury. Can you invent something cool to make exercise safer for your friends and family?

Resources:

- https://www.nlm.nih.gov/medlineplus/exerciseforchildren.html
- https://kids.usa.gov/exercise-and-eating-healthy/index.shtml
- http://health.gov/paguidelines/guidelines/chapter6.aspx
- http://www.webmd.com/parenting/raising-fit-kids/move/how-much-exercise

Healthy Air and Water: From the quality of the air we breathe to the chemicals in our water, the environment has a complex relationship with our health. What can you invent to help us better monitor or improve our local air and water environment?

Resources:

- https://youtu.be/DxmjMH600aw
- http://www.niehs.nih.gov/health/assets/docs_f_o/healthy_homes_healthy_kids_indoor_water_english_508.pdf
- http://www.nytimes.com/2015/09/30/nyregion/pilot-program-will-gauge-air-quality-in-new-york-nail-salons.html?_r=1&utm_source=Innovators+Insights+Newsletter&utm_campaign=7f1c5b62b5-Innovators_Insights_November_19_2015&utm_medium=email&utm_term=0_171b83f6b5-7f1c5b62b5-290248089

Global Health: People around the world who live in poor and live in rural areas often have inadequate resources to help them make healthy life choices. For example, they may not have access to clean drinking water; all people and animals need clean water to be healthy. Or they may not have electricity and need to burn fires inside their homes for heating, light, and/or cooking. This increases the risk for lung diseases like asthma and for serious burns from fires, and decreases the quality and time school children have for their home studies because of inadequate lighting and indoor air pollution. What can you invent that does not require electricity (or battery) access that will help people living in poor, rural areas live more healthy and safe lives? What can you invent to help people in poor rural areas solve problems caused by unsafe food and drinking water?

Resources:

- http://www.cdc.gov/safewater/disease.html
- http://www.voanews.com/content/a-13-2005-03-17-voa34-67381152/274768.html
- http://www.who.int/mediacentre/factsheets/fs292/en/
- https://en.wikipedia.org/wiki/Indoor_air_pollution_in_developing_nations

Public Videos & Images

Media SMART Kids https://www.nichd.nih.gov/msy/materials/Pages/default.aspx . The materials address physical activity, poor diets, sedentary lifestyles, and marketing of foods.

Variety of topics
http://www.cdc.gov/cdctv/
https://www.youtube.com/user/CDCStreamingHealth

Handwashing
http://www.cdc.gov/cdctv/healthyliving/hygiene/wash-your-hands.html
http://www.cdc.gov/cdctv/healthyliving/hygiene/hands-together-hygiene.html

Physical Activity
http://www.cdc.gov/physicalactivity/basics/videos/index.htm

Community health videos
http://www.cdc.gov/nccdphp/dch/multimedia/videos.htm

Injury
http://www.cdc.gov/parentsarethekey/socialmedia/videos.html
http://www.cdc.gov/cdctv/injuryviolenceandsafety/index.html
http://www.cdc.gov/headsup/resources/videos.html
http://www.cdc.gov/TraumaticBrainInjury/tbi_stories.html

Disability
http://www.cdc.gov/ncbddd/spinabifida/multimedia.html
http://www.cdc.gov/ncbddd/disabilityandhealth/video/index.html
http://www.cdc.gov/ncbddd/disabilityandhealth/righttoknow/index.html

Antimicrobial resistance
http://www.cdc.gov/drugresistance/resources/videos.html

Food Safety
http://www.fightbac.org/kidsfoodsafety/kids-games-and-activities/
http://www.fightbac.org/free-resources/videos/

Nutrition
www.nutrition.gov
http://www.nutrition.gov/life-stages/children/kids-kitchen

Graphics: Team Nutrition and MyPlate
http://www.fns.usda.gov/tn/graphics-library

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Parental/Legal Guardian Permission & Release

By signing below, I acknowledge that I am the parent/legal guardian of the **2016 Invent-It- Challenge** ("Challenge") student/minor child entrant indicated below, and hereby give him/her permission to enter, or be entered into the Challenge (an "Entry"), as an individual entrant or as a team entrant through my submission as his/her parent/legal guardian or submission through his/her teacher (hereinafter "Entrant"), as set forth in the Official Rules. I have read and accept the Official Rules of the Challenge located at http://challenges.epals.com/invent2016/the-challenge/eligibility-and-guidelines/, and acknowledge the privacy policies of the Challenge sponsors' (Cricket Media, Inc. and the Smithsonian Institution's Lemelson Center, hereinafter "Sponsors"), located respectively at www.cricketmedia.com and http://www.si.edu/privacy apply.

In accordance with the Official Rules, I confirm and agree that as a condition of Entry, the Sponsors, their respective parent[s], affiliate[s], and authorized distributor[s] and licensee[s] are granted a perpetual, irrevocable, worldwide, transferable, royalty-free, and non-exclusive right and license to use, reproduce, adapt, modify, publish, distribute, publicly perform, create a derivative work from, and publicly display the Entry, including the inventions depicted therein, the photographs, video, slides, text, images, interview, and/or audio or narrative of Entrant and of other individuals contained in the Entry submitted or related to such Entry, including any likeness, biographical information, text and/or information as contained therein or any statements or remarks made about the Challenge, for any purpose, including but not limited to advertising and promotional purposes, including without limitation for display on the Sponsors' websites, in any media now or hereafter developed, including social media, without any attribution or compensation to Entrant, except where prohibited by law. I understand and agree that I have no rights to review or approve any uses and/or edits that Sponsor[s] may make or authorize of the Entry or other materials submitted in connection with the Challenge. My grant includes the right and permission for Cricket Media, Inc. to copyright, in its own name or otherwise, my child's Entry.

To the extent permitted by law, I release and hold harmless Sponsors from any and all claims, injuries, damages, or liability of any kind resulting from any use of or arising out of the use of my Entry. I understand and agree that this Release is binding and shall be interpreted by, and enforced in accordance with the laws of the Commonwealth of Virginia and applicable U.S. federal law, without regard to any conflict of law principles.

I represent and warrant that the Entry is provided in accordance with such Official Rules of the Challenge that the Entry is an original work, not previously published commercially, and to the extent individual[s] appear in any portion of the Entry that a written release for their participation has been secured, and shall, upon request, be provided to Sponsor[s].

I hereby warrant that I, the signatory below, am over 18 years of age and have the legal right and capacity to execute in connection with my child's Entry in the Challenge. I have read the contents of this Permission and Release form, and understand and agree to its contents. (All information in the fields below must be completed, and this form signed).

Printed name of parent/legal guardian

Signature of Parent/legal guardian

Parent/legal guardian email

Printed name of my student/minor child entrant His/her date of birth

Mailing Address (including city, state, country):

Name of Entry

School Name; School's city/state/country; Grade in School: (write in "Home School", if applicable)

Invent It Challenge Scoring Guide

Invent It Steps		1- Requires Development	2- Approaches Standard	3 - Meets Standard	4 - Exceeds Standard
	**Identifies a real-world health problem or challenge**	Mentions a real-world health problem but does not define or explain it.	Presents a real-world health problem and provides minimal explanation.	Presents, defines, and explains a real-world health problem.	Clearly presents and defines the scope of a real-world health problem, providing detailed background and explanation.
	**Demonstrates invention's originality**	Presents an invention that copies existing ideas or products rather than building on them.	Presents an invention that shows some originality (relying heavily on existing ideas or products).	Presents an original invention and shows how it builds on similar past ideas.	Presents an innovative invention with attributes that reflect but go well beyond similar past ideas.
	**Demonstrates how the invention might work**	Sketch is incomplete and does not show how the invention works to solve the stated health problem.	Sketch is complete and somewhat demonstrates how the invention works to solve the stated health problem.	Sketch is detailed and clearly labeled to demonstrate how the invention works to solve the stated health problem.	Multiple sketches clearly demonstrate and gives examples of how the invention might work to solve the stated health problem.
	**Builds a prototype or model**	Prototype or model is incomplete and does not reflect the sketch or plan.	Prototype or model minimally reflects the sketch or plan.	Prototype or model is complete and accurately represents the size, shape and function.	Working prototype or detailed model clearly shows how the invention will function and is accompanied by video, audio or textual explanation.

Invent It Challenge Scoring Guide

Invent It Steps		1- Requires Development*	2- Approaches Standard	3 - Meets Standard	4 - Exceeds Standard
	**Tests the invention**	States that invention has been tested or feedback has been gathered but does not provide evidence.	Shows evidence of some testing of the invention or that minimal feedback has been gathered.	Shows evidence of thorough testing of the invention and/or gathering of comprehensive feedback from potential users or experts in the field.	Shows evidence of extensive and repeated testing of different versions of the invention, and/or gathering of comprehensive feedback from both potential users and experts in the field.
	**Tweaks the invention**	Proposes changes to the invention, but changes do not accurately reflect the testing of the invention or the feedback student received.	Proposes changes or improvements to the invention that somewhat reflect the testing and feedback.	Clearly improves the invention based on test results or feedback.	Significantly improves the invention based on test results or feedback and adds additional innovations of their own.
	**Includes a "sales pitch" convincing others of the value of the invention**	Provides basic information about the invention, but no reasons for using it.	Provides information about the invention and the problem it is solving, but does not include compelling reasons for using it.	Targets an appropriate audience, clearly defines the invention, shows how it is differentiated from similar products, and explains how it effectively solves the health problem.	Includes a convincing and compelling "sales pitch" that clearly explains how the invention solves the health problem and is different from any similar products that came before it.

*Assign a score of zero if criterion is not met at all.

Total Points for all categories, (possible 32): _____

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The Challenge

Think about a real-world health problem and come up with a solution.

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

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

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Nelson Mullins

Nelson Mullins Riley & Scarborough LLP

Timeline

January 15	March 18	April 15*	April 29*
Official Start (Kid Inventor's Day)	Submission Deadline	Winners Announced	ePals Choice Award Winner Announced

*Dates subject to change.

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 Health Standards from the Society of Health and Physical Education http://www.shapeamerica.org/standards/health	21st Century Learning Standards www.p21.org	Common Core State Standards for English Language www.corestandards.org	STEAM www.steamedu.com
1. Creativity and Innovation **2. Communication and Collaboration** **3. Research and Information Fluency** **4. Critical Thinking, Problem Solving, and Decision Making**	**Engineering Design** • Define • Develop Solutions • Optimize	**Standard 1:** Students will comprehend concepts related to health promotion and disease prevention to enhance health. **Standard 2:** Students will analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors. **Standard 3:** Students will demonstrate the ability to access valid information and products and services to enhance health.	**Learning and Innovation Skills** • Creativity and Innovation • Critical Thinking and Problem Solving • Communication and Collaboration **Information, Media and Technology Skills** • Information Literacy • Media Literacy • ICT (Information, Communications and Technology) Literacy **Life and Career Skills** • Initiative and Self-Direction • Productivity and Accountability	CCSS.ELA -Literacy.CC RA.W.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. CCSS.ELA -Literacy.CC RA.W.6 Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others. CCSS.ELA -Literacy.CC RA.W.7 Conduct short as well as more sustained research projects based on focused questions, demonstrating understanding of the subject under investigation. CCSS.ELA -Literacy.CC RA.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. CCSS.ELA -Literacy.CC RA.W.9 Draw evidence from literary or informational texts to support analysis, reflection, and research. CCSS.ELA -Literacy.CC RA.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 **Technology** • Conduct online research • Communicate an invention idea through a digital presentation **Engineering** • Solve a problem • Design an invention • Build a prototype **Arts** • Imagine and sketch an invention • Create a 3-D prototype **Math** • Measure and create a scale model of the invention • Analyze data to refine invention

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Official Rules

No purchase necessary to enter or to win this contest (the 2016 "Invent-it-Challenge" or "Challenge"). Entry in the Challenge constitutes your acceptance of these Official Rules.

Sponsors: This Challenge is sponsored by **Cricket Media, Inc**. 13625-A Dulles Technology Drive, Herndon, VA 20171, and the **Smithsonian Institution's Lemelson Center**, Washington, D.C. ("Sponsors").

Eligibility: Open to legal residents, age 5-21 at time of entry, of: the 50 United States (and District of Columbia), Canada (other than Quebec) and only those countries in which this contest is fully permitted by law. Residents of Cuba, Iran, North Korea, Sudan, and Syria are expressly prohibited. Individuals who meet the residency/age requirements and who are in Grades K-12 are eligible to enter--either as an individual or part of a team (see below), **so long as entries are submitted in connection with an authorized Submittable account (by a teacher/parent/or student account holder [if eligible]) utilizing the Challenge submission form[s]provided, including the submission of signed Parent/Legal Guardian Release form(s). Children, immediate family members, and members of the household (whether related or not) of employees of Sponsors or its affiliates, are not eligible to participate or enter. To constitute a complete entry ("Entry"), the Challenge entry submission form must be accompanied by the following uploaded attachments: (i) a file containing the invention being entered; (ii) signed parental/legal guardian permission/release form[s], as provided; and (iii) photo of inventor(s).**

As shown on the online Challenge entry submission form, there are two (2) categories of Entry as follows:

(1) Individual
(2) Team; and

Four (4) Age groups within each Entry category (**Individual**/**Team):**

Age 5-7

Age 8-10

Age 11-13

Age 14-21

Content/Timing of Entry:

Submissions must adhere to the fundamental spirit of the Challenge and Entries be submitted for judging only during the **Entry time period (January 15, 2016-March 18, 2016)** -see also **Deadlines for Entry** below. The invention or any video contained therein cannot include any defamatory, obscene or otherwise unlawful matter, depict anyone engaged in any illegal, immoral or lewd act, or contain any violent or pornographic material or any other inappropriate content as determined by Sponsor[s].

Submissions must be original work by the inventors. By submitting, you (and the parent/legal guardian of the inventor[s]) attest that the work contained in the Entry is not copied from others and it does not violate the rights of any other person or entity, and that you have all rights necessary to submit the Entry and to grant Sponsors the rights set forth in these Official Rules.

If the submission contains any material or elements that are not owned by the Entrant and/or which are subject to the rights of third parties, and/or if any persons appear in a photograph or video contained within the submission or in audio form, the Entrant is responsible for obtaining, prior to submission, any and all releases and consents necessary to permit the exhibition and use of such third party's voice/image in the manner set forth in these Official Rules without compensation. If any person appearing in the submission is under the age of majority in their state/province/territory of residence the signature of a parent or legal guardian is required on each such release. Upon Sponsor's request, each entrant must be prepared to provide (within 7 calendar days of receipt of Sponsor's request) a signed release from all persons who appear in the Challenge submission and/or from the owner of any material that is displayed or included (i.e. audio) in the submission, which release "*authorizes the use of the releasing party's image, voice or material by Sponsors, their affiliates, and authorized distributors for any purpose, including but not limited to advertising and promotional purposes, and including without limitation display on the Sponsors' websites, in any media now or hereafter known, without any attribution or compensation*."

Each Entry **must** identify a real-world problem that deals with a health issue and demonstrate all of the following seven (7) **Key Steps of the Invention Process:**

Think it	Have a great idea for an invention
Explore it	Investigate inventions and ideas of the past
Sketch it	Draw pictures and diagrams to figure out how your invention might work
Sell it	Market your invention to people who might buy it
Create it	Build a prototype or model of your invention
Try it	Test your invention
Tweak it	Keep improving your invention

The real world-problem that deals with HEALTH may be one that all the people in an Entrant's neighborhood face, something that friends complain about, or an issue where the Entrant[s] live. It could also be about a bigger, global health problem that affects many people. Your Entry must describe how you help solve the problem by inventing something new.

For the evaluation criteria for judging, see the **Scoring Guide**, which is incorporated in these Official Rules.

How to Submit

Submission must demonstrate your solution using the **Key Steps of the Invention Process**. **(**For the invention**,** Entrant can use either the provided **PowerPoint template,** a Power Point**,** or video).

Submit by completing the required fields on the online **Submission/Entry** form provided in connection with a parent, teacher, or eligible student's creation of an authorized User account for this Challenge (through our provider, Submittable).That account holder (only) is authorized to upload the Entry and **Parental/Guardian Release** form(s).

To constitute a complete Entry for consideration, fill-out the **Submission Entry form** and submit it along with a file containing the video or slide show (a PowerPoint) being entered, and the **Parental/Guardian Permission and Release form[s],** which form[s] must be signed by such parent/guardian who is 18 years of age or older (and attached in pdf or via a photo of the completed parental release form[s]) – the Parental/Guardian Permission form is required-regardless of whether the submission of the Entry is from a teacher, a parent, **or** from an eligible student (with a Submittable account.)

Submission is online only, as follows:

- Complete the online Entry submission form, and upload (i) the parental/guardian **Permission and Release** form, at http://challenges.epals.com/inventit2016/submit and (ii) upload a single digital photograph of the student(s) [the inventor(s)] being entered in this Challenge

- Uploads of the Invention must be in one of the following formats and size: Submission uploads must be under 2GB in one of the following allowed file types: ppt, pptx, avi, mov, mp3, mp4, mpg

Deadlines for Entry are as follows:

Start Date (for submission of Entries): January 15, 2016

End Date: March 18, 2016.

The timeline for determining the potential Winners and the honorary ePals Choice Award, as described below, may be subject to change.

Disclaimers; Conditions: Sponsors are not responsible for entries that are lost, late, misdirected, incorrect, garbled, or incompletely received, for any reason. If for any reason, the Challenge is not capable of running as planned by reason of infection by computer virus, worms, bugs, tampering, unauthorized intervention, fraud, technical failures, or any other causes which, in the sole opinion of the Sponsor(s) could corrupt or affect the administration, security, fairness, integrity or proper conduct of this Challenge, the Sponsor[s] reserve the right at its sole discretion to cancel, terminate, modify or suspend the Challenge and determine winners from all eligible Entries received prior to that action taken.

The Challenge is subject to federal, state, provincial, territorial and local laws and regulations. Certain restrictions may apply. By entering the Challenge, each Entrant agrees and acknowledges to be bound by the Official Rules, as well as the decisions of the Sponsors which are final and binding in all respects; to waive any rights to claim

ambiguity with the Official Rules, and that the Sponsors, their parents, affiliates, and representatives ("Releasees") shall have no responsibility or liability (including, but not limited to, liability for any property loss, damage, personal injury or death) in connection with: participation or inability to participate in the Challenge; technical or mechanical error ; typographical errors in the Challenge's promotional material; acceptance/possession, defects, and/or use/misuse of prizes; human error; incorrect or inaccurate transcription of Entry information; any technical malfunctions of the telephone service, telephone network, computer online system, computer equipment, software, or internet service provider utilized by the Challenge or by Entrant; interruption or inability to access the Challenge, any Challenge-related Web pages, or any online service via the internet due to hardware or software compatibility problems; any damage to entrant's (or any third person's) computer and/or its contents related to or resulting from any part of the Challenge; any lost/delayed data transmissions or mailings, omissions, interruptions, defects; and/or any other errors or malfunctions, even if caused by the negligence of any one or more of the Sponsors. Each Entrant further agrees to indemnify and hold harmless each of the Releasees from any and all liability resulting or arising from the Challenge and to release all rights to bring any claim, action or proceeding against any of the Releasees. Winners release Releasees from any and all liability/responsibility with respect to the prizes won (including any property loss, damage, personal injury, or death). Releasees shall not be liable for any injury, damage, loss, expense, accident, delay, inconvenience or irregularity that may be caused or contributed to (1) by any wrongful, negligent or unauthorized act or omission on the part of any of the Releasees, or any of its agents, servants, employees or independent contractors, (2) by any wrongful, negligent or unauthorized act or omission on the part of any other person or entity not an employee of any of the Releasees, or (3) by any other cause, condition or event whatsoever beyond the control of any of the Releasees.

Intellectual Property Rights*:* As between Sponsors and the Entrant, the Entrant retains ownership of all intellectual property rights (including moral rights) in and to the Entry, including associated photo submission(s). As a condition of entry, Entrant grants Sponsor[s], its parent, affiliates, and authorized distributors a perpetual, irrevocable, worldwide, transferable, royalty-free, and non-exclusive license to use, reproduce, adapt, modify, publish, distribute, publicly perform, create a derivative work from, and publicly display the Entry, including the inventions depicted therein, the photographs, video, text, images and/or audio of Entrant and of other parties contained in or related to the Entry, the likeness, biographical information, text, and information as contained in the Entry, and/or any statements or remarks made about the 2016 Invent-it-Challenge for any purpose, including but not limited to advertising and promotional purposes,, including without limitation display on the Sponsors' websites, in any media now or hereafter known, without any attribution or compensation to Entrant, except where prohibited by law. Entries will not be returned.

Privacy: Entrants agree and acknowledge that personal data submitted in connection with an Entry, including name, mailing address, phone number, and/or email address, may be collected, processed, stored and otherwise used by Sponsors and their affiliates for the purposes of conducting and administering the Challenge, and as otherwise permissioned by the parent/legal guardian of Entrant as described in the foregoing paragraph and authorized on the Parental/Legal Guardian Permission and Release submitted. All personal information that is collected from parents, guardians, teachers, and/or eligible students on behalf of Entrants is subject to the respective Privacy Policies of Sponsors.

Publicity. By entering the Challenge, Entrants agree to participate in any media or promotional activity resulting from the Challenge as reasonably requested by Sponsor at Sponsor's expense and agree and consent to the use of their name and/or likeness by Sponsors. All or a portion of the Entry may also be used for press and media purposes and Entrant agrees to waive any rights and not assert any intellectual property rights that Entrant has or may have in the Entry. Sponsors reserve the right to publish the name and likeness of the Entrants on the Challenge Site or through other media for publicity purposes.

Determination of Winners; Notification

On or about March 21, 2016, a panel of Smithsonian Lemelson Center and Cricket Media, Inc. staff members will commence judging of all Entries. The judges will score Entries based on how the invention solves a real-world health problem and how the key steps of invention were addressed. See **Scoring Guide, which is incorporated herein**.

All potential winners will be notified by mail, email and/or telephone using the contact information on the Entry documents. Upon notification of being a potential winning invention, each potential winner within a Category will be required to sign (and/or such inventor's parent/legal guardian if under age 18), additional documents in connection with Challenge and prize fulfilment. Honorable Mentions, if any, may be asked to sign (or entrant's parents, legal guardian sign) additional documents in connection with the Challenge.

If a potential winning Entrant cannot be contacted, does not respond within seven (7) business days from the date the Sponsor first tries to notify him/her, fails to return any Prize affidavit and release document, or refuses the prize, the potential winner forfeits all rights to win the Challenge and its prizes. An alternate winner may be selected.

Prizes:

There will be eight (8) winners, an individual winner (4 total) and a group ("Team") winner for each of the four (4) age Categories, and potentially up to 20 Honorable Mention winners as may be determined by Sponsors (the Honorable Mentions will *not* receive the below Challenge prizes, but shall be offered a digital subscription to one of the following science magazines: Click; Ask; or Muse (ARV $18 (U.S. dollars) per magazine).

Upon timely completion of any requested Prize affidavit and release form and dependent upon whether the potential winner is an individual or a member of a winning Team entry, the prizing is as follows (or such substitute of the same or greater value as may be provided by Sponsor):

Age 5-7: A LEGO set (ARV: $ 50-75 for Individual winner; ARV: $12-$30 for each Team member winner); a "My Body" Little Explorer book from the Smithsonian (ARV: $6.95-for individual winner and one for the Team); the 8-book set in the Smithsonian's planet series (ARV: $63.30-for individual winner and one set for the Team); and for the one Individual winner in the Category of Age 5-7 (and entering grades one through six), a scholarship for the camp registration fees to attend a Camp Invention® Summer 2016 camp Program, (ARV: $**220-250.00**)-- further details and registration forms/requirements for a particular camp location shall be made available by Camp Invention®.

Age 8-10: A LEGO set (ARV: $50-75 for Individual winner; ARV $12-$30 for each Team member winner); a "Make Your Own Skeleton" kit from the Smithsonian (ARV: $24.99-for individual winner and one for the Team); the 8-book set in the Smithsonian's "Secrets of" planet series (ARV: $63.30-for individual winner and one set for the Team); and for the one Individual winner in the Category of Age 8-10 (and entering grades one through six), a scholarship for the camp registration fees to attend a Camp Invention® Summer 2016 camp Program, (ARV: $**220-250.00**)-- further details and registration forms/requirements for a particular camp location shall be made available by Camp Invention®.

Age 11-13: A LEGO set (ARV: $50-75 for Individual winner; ARV $12-$30 for each Team member winner); the 8-book set in the Smithsonian's "Secrets of" planet series (ARV: $63.30-for individual winner and one set for the Team).

Age 14-21: A LEGO set (ARV: $50-75 for Individual winner; ARV $12-$30 for each Team member winner); a Smithsonian "Timelines of Science" book (ARV: $26.89- for individual winner and one for the Team); and for the one Individual winner in the Category of Age 14-21, a ZFlex cruise skateboard (complete), large T-shirt (Boardrboys) and stickers (ARV: $150).

In addition, at the Sponsors' discretion, up to three (3) Individual or Team winners in any of the above Age Categories, will receive a free consultation with a patent lawyer from Nelson Mullins Riley & Scarborough, LLP to discuss the eligibility of the winner's invention for patent protection.

All taxes, fees and surcharges on prizes, if any, are the sole responsibility of the prize winners.

ePals' Choice Award. The eight (8) winners described above will be eligible for ePals' Choice Award. The winner with the most votes from an online poll will receive the honorary ePals Choice Award that will be announced in May 2016. Such award is a recognition of the popularity of a single Entry invention (Individual or Team) and no further prizing is associated with such award.

WINNERS LIST AND OFFICIAL RULES: A winners' list will be available fourteen (14) days after the announcement of the ePals Choice award and for a period of six (6) months thereafter. A copy of the Official Rules will be available during the Entry Period (all requests must be received prior to the End Date). Send a request for any of the above by emailing invent@cricketmedia.com, or by mail to: Invent-it-Challenge, 13625-A Dulles Technology Drive, Herndon, VA 20171.

Prizes courtesy of:

Smithsonian

LEGO

Camp Invention®

Nelson Mullins

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