



OFFICIAL
ENTRY KIT



WELCOME TO THE KIDS' SCIENCE CHALLENGE!

Instructions

In the following pages you will find information about the Kids' Science Challenge and how our scientists do experiments. This kit provides you with all of the information you will need to fill out the Entry Application.

Parent or Guardian Consent

Your parent or guardian MUST fill out the Consent Form that is included with the Entry Application. When you have both of those forms filled out, please mail or fax them to us at the address or fax number on the Entry Application Instructions.



Presented by
the award-winning
radio series,
Pulse of the Planet



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support provided by
Camp Woodward
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What is the Kids' Science Challenge?

It's a national science competition for third to sixth graders.

First, you learn about some REAL scientists who are doing fun things. Then, you come up with a question or a problem for them to solve, or an experiment they can do.

If your idea is chosen, you get to visit and work with the scientist and see your idea become a reality. And you would get some cool prizes.

How do you think of a question, an experiment or problem?

- Watch the videos on the kidsciencechallenge.com web site and check out the Science Secrets section.
- Do some of the online activities at kidsciencechallenge.com. Once you've learned about what the scientists do, pick one of the subjects that interest you: flavor, skateboards, water quality, or the search for life on other planets.
- See if you can come up with a question, experiment or problem you'd like to see solved. Discuss your ideas with your parents, teachers or friends.
- Join a group on imbee.com or a live chat on Whyville.net. See kidsciencechallenge.com for direct links. To get you jump-started, we've included some sample questions for each scientist in this entry kit.

You already know how to solve problems. You do it everyday: "How can I reach the cookies on the top shelf?" Well, it's no different for scientists and engineers. What's a problem a flavor scientist could solve? Maybe it's creating a new kind of candy or flavor!

What do you do after you've thought of a question?

Fill out the Entry Application at the end of this booklet. Make sure your parent or guardian completes and signs the Parent or Guardian Consent Form, so we know it's OK with them for you to enter the challenge. Then mail or fax it to us at the address or fax number on the Entry Application Instructions.

How do you win?

Our panel of science judges is looking for a question, problem or experiment that shows you've learned about the science of skateboarding, flavor, water quality or the search for life on other planets. Your idea should be original, and something that a scientist can really do. So making a skateboard out of bubblegum may sound like fun, but it probably wouldn't make a very good skateboard!

If you win, what do you get?

The four Grand Prizes are trips to visit and work with a scientist. There are many other prizes too, so lots of kids will win something. You can see the complete list of prizes on our web site at kidsciencechallenge.com



Now, in the next few pages, find out about the Kids' Science Challenge scientists and engineers and how they do experiments and solve problems.



Joan Harvey is a flavor scientist. She works in the Cadbury Flavor Lab, spending her days creating new kinds of candies and gums. She asks questions like, "Why does a flavor used in soda not taste the same in chewing gum?"

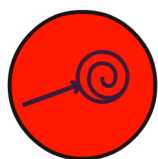
Joan especially enjoys smelling liquid aromas in bottles, then mixing them together to create flavors like bananas.

Joan thinks more kids should learn about flavor science, because nothing tastes sweeter than candy you invented yourself.

Here are the Kinds of Questions that Joan might ask:

- Can we use a familiar flavor in a new way? For example, can we make chewing gum that tastes like tea or salad dressing?
- What are new and fun flavor combinations?
- Is there a new kind of candy or snack that could be used in special situations, such as at the movies, on a boat or on a camping trip?
- Could a candy or snack do something that would make it useful?
- How can we use color and smell to make new kinds of candy?

See if you can come up with a completely new or different idea that nobody else has thought of. Let your imagination go wild!



SETI



Scientists at the SETI Institute (the Search for Extraterrestrial Intelligence) explore the universe for signs of intelligent life. Are there other planets like Earth? Is there anyone living on them? If there are living creatures in outer space, are they trying to send us messages? What are they trying to say?

Jill Tarter is SETI's research director. She spends time looking for very short light pulses from distant lasers, and listening for the beep-beep of radio signals, hoping that ET could be sending us a message. "ET" stands for "extra-terrestrial" – an intelligent form of life that may exist on another planet.

Doug Vakoch thinks about the messages that we could send ET to get it to notice us. Should they be pictures or could ET understand our words or numbers?

Nathalie Cabrol goes to extreme environments on earth – such as very cold and very high places - to study the plants and animals that live there. She asks questions like, "Could life on other planets live in places like these?"

And astronomer **Seth Shostak** talks to people a lot about what SETI does. He has a science radio show, Are We Alone?

Here are some of the kinds of questions that the SETI scientists might ask:

- What would be a smart way to tell an ET that we're here? Should we, as Seth Shostak suggests, "get everybody in a city to turn our lights off and on at the same time?"
- What kind of message should we be listening for? Right now, SETI monitors radio signals with radio telescopes, like the ones in the picture above, maybe we should look or listen in other ways.
- If we do send a message into outer space, what should it say? What should we tell an extra-terrestrial about us and planet earth?
- How should we communicate with an alien creature? Should we write our message in English? Should we put our message in numbers or pictures?
- Are there places on earth that are like environments in outer space, such as the deserts of Mars? What can we learn from these places?
- How can we make better radio telescopes that listen to more distant signals?

See if you can come up with a completely new or different idea that nobody else has thought of. Let your imagination go wild!



WATER QUALITY



Adina Paytan is an oceanographer at the University of California in Santa Cruz. She goes to different places, like the beaches in California, to collect water samples and test them in her lab.

Adina asks questions like, "How do people's activities on the beach affect the water in the ocean?," or "Why is the water in Lake Tahoe, in California, not as clear as it used to be?"

Adina especially enjoys scuba diving, hiking and just being outdoors. She thinks more kids should learn about water, because it makes all life possible.

Here are the kinds of questions that Adina asks:

- Are chemicals and pollution from factories, automobiles and homes getting into our water supply? Is this pollution affecting life in the ocean?
- Could dog poop and other "fecal matter" on the beach affect the quality of the water? Adina and her students tried to answer this question by taking samples of ground water at different beaches, checking for harmful life forms and comparing these results with the quality of the ocean water.
- What are the best ways to find the sources of water pollution? Adina uses tell-tale clues to trace different kinds of water. For example, ocean water is salty and fresh water is not.
- Do natural forces, like tides and the full moon, affect the amount of water pollution in the ocean?
- Think about the water supply in your own home and community. Are there any problems that you think Adina might be able to help solve?

See if you can come up with a completely new or different idea that nobody else has thought of. Let your imagination go wild!



SKATEBOARD ENGINEERING



Engineers at Gravity Skateboards and CreateAskate.org design and manufacture new kinds of skateboards. What could they build to make skateboards go faster? Higher? More safely? How could they make skateboards in an environmentally friendly way?

Michael Bream owns Gravity Skateboards. He built his first skateboards in a garage and sold them to kids on the beach.

Michael's company was the first one to use recycled wood in skateboards.

Paul Schmitt started CreateAskate.org so kids could build skateboards and learn about science too. Paul built his first board when he was 14.

Here's an example of the kinds of problems that Paul and Michael try to solve:

- Is it possible to use recycled materials to make better skateboards? Michael found a way to use recycled glass instead of the sandpaper grip-tape that goes on top of a skateboard.
- How can you make a skateboard last longer? Paul worked on a deck that has waffle-type holes in the wood that make the board stronger.
- When Paul was first making skateboards at the age of 14, he had a real problem. How could he get enough pressure to glue the strips of wood together to make a skateboard deck? He came up with some smart ideas, like using the weight of his mother's car to press down on the boards!
- Is there a skateboarding problem you have that Michael and Paul could solve? Do you have an idea for a better, safer, board? Can you think of a new, strong, flexible material to make a skateboard out of?

See if you can come up with a completely new or different idea that nobody else has thought of. Let your imagination go wild



ENTRY APPLICATION INSTRUCTIONS

- You may enter in more than one category (skateboards, flavor, etc.), but you must submit a new application for each entry. So if you want to send a question for SETI and an experiment for water quality, you'll have to fill out two entry applications.
- A parent or guardian **must** fill out the Consent Form.
- Your entry **must** be postmarked or faxed by midnight, February 28, 2009.
- Winners will be announced on March 31, 2009.
- If you have questions about filling out the Entry Application, email info@kidsciencechallenge.com

Mail your Entry Application and Parent or Guardian Consent Form to:

Pulse of the Planet's Kids' Science Challenge

PO Box 344

Accord, NY 12404

Or Fax it to: 1-253-648-2253



ENTRY APPLICATION

YOUR NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

PHONE _____ EMAIL _____

SCHOOL _____

- I want to enter as:
- An Individual
 - A Team Member

If entering as a Team Member, please ask your team mentor for the name of your team and fill it in here:

NAME OF TEAM _____

Team Mentor: If entering as a Team, you need to have a team mentor, who may be an educator or parent.

NAME OF TEAM MENTOR _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

PHONE _____ EMAIL _____

SCHOOL (IF APPLICABLE) _____

Team entries are limited to no more than 25 kids.

WHYVILLE NAME (Whyville members only - get your free KSC beanie)

How did you hear about the Kids' Science Challenge?

(This information is optional and not used for judging.)

- School
- Friends
- Radio
- Whyville.net
- imbee.com
- Other Internet Site _____
- After School Group _____
- Magazine _____
- Other _____



ENTRY APPLICATION

YOUR NAME _____

Scientist selection (*choose only one*):

- Adina Paytan / Water Quality
- Joan Harvey / Flavor Science
- SETI Team / Search for Extraterrestrial Intelligence
- Paul Schmitt & Michael Bream / Skateboard Engineering

TELL US YOUR QUESTION, EXPERIMENT OR PROBLEM:

HOW DID YOU COME UP WITH THIS IDEA?



ENTRY APPLICATION

In the space to the right, you can tell us more about your idea, **or** draw a picture that shows or demonstrates it.

(This page is optional. Fill it out only if you want to.)

YOUR NAME _____



PARENT OR GUARDIAN CONSENT

ENTRANT FULL NAME _____

BIRTH DATE _____ FEMALE _____ MALE _____

GRADE LEVEL: 3 _____ 4 _____ 5 _____ 6 _____

PARENT OR GUARDIAN INFORMATION

NAME _____

RELATIONSHIP TO ENTRANT _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

PHONE _____ EMAIL _____

PARENT OR GUARDIAN PERMISSION

I have read the Official Rules and I understand that, by submitting this application, the entrant named above has my permission to participate in the Kids' Science Challenge under the conditions stated in the Official Rules; that the entrant may be asked to appear in public media, such as newspapers, the internet, radio or TV; and that the contact information listed above may be shared with third parties for the express purpose of prize and science activity kit deliveries. Finalists may be contacted by phone to verify their identity and the originality of their entry.

NAME _____ DATE _____

SIGNATURE _____

PULSE OF THE PLANET'S "KIDS' SCIENCE CHALLENGE" OFFICIAL RULES

1. ELIGIBILITY

Pulse of the Planet's "Kids' Science Challenge" ("Challenge") is open to all legal U.S. residents who are students enrolled in 3rd through 6th grade at a public, private, parochial, or home school located in one of the fifty states or the District of Columbia. In order to be considered eligible, students must comply with the safety guidelines set forth below ("Safety Guidelines"). Employees, officers and directors of Jim Metzner Productions, Inc. (the "Sponsor"); (the "Judges"), its subsidiaries, affiliates, advertising agencies, promotional suppliers, and participating scientists, their immediate family members (spouse, siblings, and children, regardless of where they live) or members of the same households (whether related or not) of such employees, officers and directors are not eligible. Void in Puerto Rico and where prohibited.

2. CHALLENGE PERIOD

The Challenge period begins on October 1, 2008 at 12:01 AM EST and expires at 11:59 PM EST on February 28, 2009.

3. BRIEF CHALLENGE DESCRIPTION

Eligible students shall have the opportunity to submit an experiment or problem for a participating scientist to solve. For a student to officially enter the Challenge, the student must be registered as described below and his/her submission must be uploaded, faxed or postmarked between October 1, 2008 at 12:01 AM EST and 11:59 PM EST on February 28, 2009. Limit one entry per student or group per category. The student or group judged to have the most original entry in each science category will be selected as a winner and will have the opportunity to work directly with a scientist. Winners will be announced on March 31, 2009 on kidsciencechallenge.com. Scientists will conduct winning experiments between April 1, 2009 and May 31, 2009. The four (4) winners will be entitled to a Grand Prize (described below).

4. TO REGISTER AND ENTER

Starting on October 1, 2008, visit www.kidsciencechallenge.com, click on the "Submit Your Entry" tab to download a PDF file to be completed and be faxed or posted via US mail, or register online at imbee.com. For entries posted via US mail you must provide your parent or legal guardian's completed and signed "Parent or Guardian Consent" form, which includes the student's full name, home address, home phone, email address, birth date, gender, school grade, parent/legal guardian's name and email address, and school information.

For entries submitted online via imbee.com, your parent or guardian must agree to your registration as an imbee.com member and complete a "Parent or Guardian Consent Form" provided by imbee.com.

Sponsor or imbee.com will send an email or written confirmation to your parent or guardian advising him/her of your attempt to enter the Challenge.

Personal contact information may be shared with third parties for the sole purpose of prize and science activity kit deliveries.

You may enter as an individual or as a member of a team. Teams may be formed online at imbee.com, in classrooms, after-school groups, or in another community of your choice. In the case of a team entry only, team members will be assigned a mentor to guide them through the team entry process. The mentor will supply the entrant with a unique team name that must be provided in the Entry Application. Failure to provide an approved team name for a team entry will result in disqualification. You may not enter as an individual if you have already joined a team and have been assigned a team mentor.

5. SCIENTIFIC FIELDS

Each student must select one (1) of the following fields of science (each a "Scientific Field" and collectively ("Scientific Fields")):

(i) Water Quality: Propose an experiment relating to water ecology or oceanography, in particular having to do with water quality, the water cycle, or the migration of pollutants within that cycle.

(ii) SETI: Propose an experiment or means of communication, the use of which might assist astronomers in their understanding of and search for extraterrestrial intelligence.

(iii) Flavor: Propose an idea for a new flavor creation, or means by which to create a flavor for a confection, or a new type of confection (including, but not limited to, chewing gum, gummy candies, and hard candies).

(iv) Skateboarding: Create or propose a new structural design element to be used in the construction of a skateboard.

6. EXPERIMENT SUBMISSION

To enter, a student must submit one Entry Experiment, Question or Problem explaining and/or demonstrating one of the Scientific Fields listed above in Section 5 (the "Entry Experiment"), along with answers to questions explaining how the entrant developed the idea for the Entry Experiment.

The Entry Experiment, Question or Problem must be the original work of the student. Students may work independently or in a peer group on the development of their Entry Experiment and must devise their Experiment with minimal help or direction from others. Entries WILL NOT be accepted which include non-student work.

Completed Entry Experiments must be received via online submission at imbee.com, or postmarked via US mail, or faxed, between October 1, 2008 at 12:01 AM EST and February 28, 2009 at 11:59 PM. No entries will be accepted before or after such period. Entry materials submitted will not be returned to the entrant. Sponsor is not responsible for late, lost, damaged, misdirected, postage due, stolen, or misappropriated entries.

Entry Experiment may not defame or invade the privacy or publicity rights of any person, living or deceased, or otherwise infringe upon a person's personal or proprietary rights. No copyrighted material may be used in an entry experiment without proper permission from, and acknowledgement of, the copyright owner. Sponsor reserves the right in its sole discretion to disqualify any entry at any time which, in the Sponsor's reasonable opinion, endangers the safety or well being of any person or in the event it is determined that the entrant has not complied with these Official Rules, including without limitation the Safety Guidelines. In addition to the Sponsors' right to do so at its discretion, the Judges will also be instructed to disqualify any entry that describes dangerous conduct, stunts or tricks, conduct that could lead to physical injury, property damage or otherwise violates or is inconsistent with these Official Rules.

Participation in the Challenge constitutes the student's and his/her parent's or guardian's full and unconditional agreement to and acceptance of these Official Rules. By entering the Contest, the student and his/her parent or guardian warrants that the student's Entry Experiment is an original creation of the student's, and that student and the parent or guardian is aware of no conflicting rights in the submission or claims to the submission, including but not limited to copyright or other intellectual property right.

In the event that an entrant submits an Entry Experiment that is accepted as a winning entry by the judges, and in the following experimental process the Entry Experiment is found to have potential commercial value, intellectual property rights to any and all resulting products and processes will be shared jointly between the Entrant, the participating scientist, and Jim Metzner Productions, Inc.

7. JUDGING

There are two (2) rounds of judging:

- Round 1: All entries will first be screened to ensure they meet the entry criteria. Students who meet the entry criteria will advance to Round 2.
- Round 2: Judges will score each Entry. Students will be scored on their ability to understand the Scientific Field they have chosen for their Entry Experiment. Scores will be broken down in to 3 areas:

1. (i) Originality;
2. (ii) Content's relation to stated criteria; and
3. (iii) Overall presentation.

The Judges will select the four (4) entrants with the highest overall scores, and these entrants will be eligible for the Contest prizes. In the case of a Team submitting a winning entry, only one (1) Team member will be entitled to a Grand Prize and other Team members will receive runner-up prizes. Team prize awards will be determined by the judges in consultation with the Team Mentor.

In the case of similar or identical entries, judges will make a determination of the winner. All decisions by the judges are final. The 4 winners will be announced on March 31, 2009. Sponsor will use its best efforts to announce the winners at the designated time, but will not be held liable for any unforeseen delays.

8. PRIZES

One Grand Prize will be awarded for each Scientific Field: Each winner shall receive the grand prize associated with his/her submission, in one of the following categories:

- (i) Water Ecology: Research voyage on San Francisco's Marine Science Institute vessel
- (ii) SETI: Tour of the SETI Institute
- (iii) Flavor: Tour of the Cadbury flavor research laboratory
- (iv) Skateboarding: Skateboard factory tour and a demo by professional skateboarders for the winner's school.

Grand Prizes include roundtrip airfare for the winner and his/her parent or legal guardian from a major airport nearest the winner home (airport and airlines selected by Sponsor in its sole discretion), hotel accommodations, select events/sightseeing and meals. Meals shall consist of 3 breakfasts, 2 lunches and 3 dinners [Approximately retail value ("ARV") \$3,000.00]. Gratuities and incidental expenses not included. Actual value will vary depending upon point of departure and other contingencies. Any differences between actual costs and ARV will not be awarded. Finalist and parent / guardian must travel together on the same itinerary. If finalist resides within a 100-mile radius of prize location, Sponsor, in its sole discretion, reserves the right to provide ground transportation in lieu of air transportation and no compensation or substitution will be provided for difference in prize value.

A listing of Grand Prize and runner-up prizewinners may be found on the Kids' Science Challenge web site at kidsciencechallenge.com

Winners will be notified by email or by telephone (as provided on the Entry Application) and will be sent a claim form, which parent or legal guardian of the finalist will be required to sign and return to Sponsor. In addition, each winner will be sent an affidavit/documentation of eligibility and liability release, a federal and state tax release (if applicable), and a (where legal) publicity release. Parent or legal guardian of the finalist will be required to complete and return the aforementioned documents within 10 days of issuance of these documents to claim the finalist prize. Failure to timely complete and return the properly signed affidavit and releases or other prize documentation, or if a finalist chooses to decline a prize for any reason, or fails to comply with any requirement of these Official Rules, may result in the prize being forfeited. Return of any prize/prize notification as undeliverable, or inability of Sponsor to contact finalist(s), may result in disqualification. If a winner forfeits an award for any reason, the Judges shall determine a winner from one of the runner-ups. The decision of the Judges in this respect shall be final.

9. RESPONSIBILITIES

All expenses related to acceptance and use of the prizes not specified are the sole responsibility of finalist/winner. By participating, entrants agree: (a) to these rules and decisions of Sponsor and Judges, which shall be final in all respects relating to the Contest; (b) to the release of personal contact information to third parties for the sole purpose of prize deliveries; and (c)

to release, discharge and hold harmless Sponsor from any and all injuries, liability, losses and damages of any kind resulting from their participating in the Challenge or their acceptance, use or misuse of a prize including, without limitation, personal injury, death and property damage, and claims based on publicity rights, copyright, trademark, defamation or invasion of privacy

By entering the contest, entrants agree to grant Sponsor: [a] all rights of ownership, reproduction and use of entry for any purpose whatsoever without compensation or further permission, including but not limited to an irrevocable and perpetual, royalty-free, worldwide right, in all media (now known or later developed) to assign, use, publish, edit, adapt, modify, alter, reproduce, distribute, broadcast, display, copyright, create derivative works or otherwise exploit entries, for commercial or non-commercial use; and if a winner, [b] to permit Sponsor to use his or her name, photograph, likeness, Entry, biographical information, voice, voice likeness, and city and state address for advertising, publicity and promotional purposes in all media, including but not limited to within Sponsor's web sites in perpetuity, without compensation (unless prohibited by law) and agree to execute specific consent to such use upon request.

Sponsor is not responsible for and shall not be liable for: [a] electronic, hardware or software program, network, Internet or computer malfunctions, failures, or difficulties of any kind, including without limitation, server malfunction or by any human error which may occur in the processing of entries; [b] failed, incomplete, garbled or delayed computer transmissions; [c] late, lost, misdirected or incomplete entries; or [d] any condition caused by events beyond the control of the Sponsor that may cause the promotion to be disrupted or corrupted.

Sponsor reserves the right in its sole discretion to cancel, terminate, modify or suspend the Challenge or any portion thereof should viruses, bugs or other causes beyond the control of Sponsor corrupt the administration, security or proper play of the Challenge, and limit entries to those submitted prior to the action taken, or to proceed in such a manner as may be deemed fair and equitable by Sponsor in its sole discretion and to award the prize from all eligible entries received prior to such action taking place. No prize transfer or cash redemption. No prize substitution, in whole or in part, except by Sponsor due to prize unavailability, safety or security considerations, or any other reason as solely determined by Sponsor in which case a prize of comparable or greater value will be awarded.

CAUTION: ANY ATTEMPT BY AN ENTRANT TO DELIBERATELY DAMAGE ANY WEB SITE OR UNDERMINE THE LEGITIMATE OPERATION OF THE PROMOTION MAY BE A VIOLATION OF CRIMINAL AND CIVIL LAWS AND SHOULD SUCH AN ATTEMPT BE MADE, SPONSOR RESERVES THE RIGHT TO SEEK DAMAGES FROM ANY SUCH PERSON TO THE FULLEST EXTENT PERMITTED BY LAW.

Internet entry must be made at the authorized web site address of www.imbee.com. Entries may not be made by any other individual or any entity, and/or originating at any other Internet web site or e-mail address, including but not limited to commercial contest and sweepstakes subscription notification and/or entering service sites. Any person who enters by any of the methods described above will be disqualified. Use of any device to automate entry is prohibited. Sponsor reserves the right in its sole discretion to disqualify any entry at any time in the event it is determined that the entrant has not complied with these Official Rules. This Contest is governed by the laws of the State of New York, with jurisdiction and venue in Ulster County, New York, and all claims must be resolved in the courts of Ulster County, New York.

Sponsor reserves the right to extend the competition deadline and/or winner announcement deadline for any unforeseen reasons if needed.

10. WINNERS LIST

Grand Prizewinners' names will be published on the Kids' Science Challenge web site, www.kidsciencechallenge.com, on or before March 31, 2009.

Sponsor: Jim Metzner Productions, Inc., PO Box 344, Accord, NY 12404.