



KIDS' SCIENCE CHALLENGE

TEACHER – MENTOR GUIDELINES



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Pulse of the Planet



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THANK YOU FOR BEING A KIDS' SCIENCE CHALLENGE MENTOR

By “mentor,” we mean teacher, helper, facilitator, group leader – someone who helps prepare students to participate in the challenge. We hope that your participation will be rewarding for you as well as for the 3rd to 6th graders involved in the Challenge, and that it will be a rich and satisfying science education experience for all. We sincerely believe that adult participation in the learning process is the single most important key to educational success. Your participation is truly appreciated.

In a nutshell, we are asking kids to come up with an original idea or design that relates to three fields of scientific inquiry or engineering: Detective (forensic) Science, Bio-Inspired Designs, and Sports on Mars. The Entry that is judged in each field to be the most original will win the Grand Prize for that field – a visit with the scientist or engineer to collaborate with him or her on the winning idea, along with possible appearances in *Kids' Science Challenge* videos and *Pulse of the Planet* radio programs and other media. But many entrants will win prizes. See the prize descriptions on the *Kids' Science Challenge* web site for a complete list.

To prepare kids for the process of completing the Entry Application, we've created a wealth of educational resources and activities related to the three Scientific Fields. We encourage you to familiarize yourself with all of the following instructions and resource guides. Many of the online activities are also appropriate for after-school or classroom use.

If you have not already done so, we encourage you to join our mailing list. To sign up, just look for the link on [kidsciencechallenge.com](http://www.kidsciencechallenge.com) or go directly to <http://www.pulseplanet.com/planetkids/>

GENERAL GUIDELINES

- In both classroom and after-school groups, participating students have the choice to work individually **or** collaboratively in a Team. In either case, the end product of the students' activities will be a completed Kids' Science Entry Application.
- When a child prepares for entering the competition as an individual, he/she will be guided through a series of learning activities, and then encouraged to imagine an original idea for his/her entry.

To apply as a member of a Team, students will work collaboratively on learning activities, and be encouraged to come up with an original idea together.
- Although recommended, individual entrants are NOT required to have a mentor. They are free to simply use all of the Kids' Science Challenge resources as a guide to the learning activities.
- Team submissions **MUST** be endorsed by a mentor. In the case that a Team submission wins a Grand Prize, the judges will award the prize to **one** Team member, in consultation with the mentor. All other Team members will receive runners-up prizes.

- Mentors are asked to help guide the students through the Entry Application process, assuring that they fill out all forms properly and that the Parent or Guardian Consent form is completed, signed and returned to the *Kids' Science Challenge* with the Entry Application.
- Probably the most challenging and most important component of mentoring will be to help the kids to envision ideas, encouraging them to have their own ideas. Here are some basic tips:
 - Encourage the students to explore all of the resources on the web site, and to try to imagine new ideas as they go through this process.
 - Encourage ideas that are neither too hard nor too easy. If in doubt, err on the easy side since something too difficult may give the idea that science itself is too hard.
 - Allow students to select the activities they like and to imagine their own ideas.

FORMING A KIDS' SCIENCE CHALLENGE TEAM

You may be asked by your students to assist in the formation of a *Kids' Science Challenge Team*. Teams may be formed in *After-School Groups*, in classrooms, or other communities.

The Mentor will help the kids select an appropriate Team Name, guide them through the Team Entry process, and verify consistency within Team Entry Applications. Each Team member must submit a complete Entry Application that includes the Team Name and the name and contact information of the Team Mentor. Once a kid joins a Team, then he/she MUST enter as a Team member.

TIPS FOR TEAMS

- **How to start things off in your group.**
 - All *Kids' Science Challenge Teams* are limited to no more than 10 kids.
 - Ask the kids if they would like to work individually **or** collaboratively as a Team. It's okay to have both individual and Team entries from one class or after-school group.
 - Introduce the kids to the KSC online learning resources, including videos and games. In particular, we recommend doing many of the downloadable activities you'll find on the Science Secrets and Get Involved pages. They're fun, and they'll give kids a real sense of what that particular science field is all about. Nearly every downloadable activity has a companion video that explains it.
 - Take a poll, or survey, to see if the kids are particularly attracted to any of the three Scientific Fields in the competition.
 - Kids working in Teams should agree on the Scientific Field that they wish to enter.
 - Help the kids to brainstorm about fun names for their Team.
 - Encourage the use of names with a local flavor, like "The Anyschool USA Flavor Tasters," "The Anytown 4-H SETI Team," etc.

RESOURCES – Kids' Science Challenge Web Site

The *Kids' Science Challenge* web site (www.kidsciencechallenge.com) is your central resource for educational activities. Although designed to be kid-friendly, we hope that you'll have fun exploring it too!

The navigation tabs direct you to general *Kids' Science Challenge* information, including: entry form; prize descriptions; the Teachers and Parents page; and a link to woogiworld.com.

Three colored tabs lead to comprehensive information about each of the three Scientific Fields. They pop-out to reveal three selections:

- **Latest Updates:**

- Videos of the scientists and engineers describing their work and how they do science. Encourage the kids to watch the videos and discuss them.
- *Check the Latest Update* pages for all the latest news.

- **Science Secrets:**

- *Meet Your Scientists* includes biographical information about the scientists and examples of the work they do.
- *Great Resources!* Includes a selection of downloadable science activities tailored to the competition. Many of these activities are supported by videos with our scientists and engineers. Relevant web links can also be found in this section.

- And fun educational *Games!* Each scientific field includes a kid-friendly game that is intended to teach science concepts in a fun and engaging way.

LESSON PLANS

In collaboration with *WVIZ/PBS ideastream* we have created lesson plans for classroom use for each of our Scientific Fields. Although these are intended for science classrooms, they could also serve as activities for *After-School Groups*. The lesson plans are aligned to National Science Education Standards. They are free and available at www.pulseplanet.com/educatorresources, but you must register to access them.

WOOGIWORLD.COM

Woogi World is a safe online community in which kids can interact with one another. *The Kids' Science Challenge* has partnered with Woogi World, where kids have the opportunity to ask specific questions directly to our participant scientists and engineers in a science clubhouse. A link to this area of Woogi World is provided on the Kids' Science Challenge homepage.

OFFICIAL ENTRY APPLICATION

A downloadable PDF of the Official Entry Application is available at www.kidsciencechallenge.com. You will be better able to assist your students by becoming familiar with the Official Entry Application.

The Entry Application contains:

- **Background on the Kids' Science Challenge**
- **Information about the Science Fields**
- **The Entry Application**

Fill out the Entry Application completely and sent to:

Pulse of the Planet's Kids' Science Challenge
PO Box 344
Accord, NY 12404

or fax it to
253-648-2253

In the case of an individual entry, it may be completed online at kidsciencechallenge.com.

- Official Rules - *Please note:* The *Kids' Science Challenge* is open to all legal U.S. residents who are students enrolled in 3rd through 6th grade. The Challenge begins on October 1, 2009 at 12:01 AM EST and expires at 11:59 PM EST on February 28, 2010. Entries **MUST** be the kids' original work, or the original work of their Team. Please see the *Official Rules* for additional information.

AFTER THE ENTRIES ARE COMPLETED

What happens with students after they enter the competition? We'd like to keep them interested by continuing to do the online and hands-on activities. We encourage students to use their KSC entries as springboards for Science Fair Projects. In the spring, we'll be inviting all KSC entrants to send in photos of their Science Fair projects and we'll post them on our Science Fair page.

The kids who send in drawings may see their drawing posted on our entries gallery. In the spring of 2010, we'll have a Kids' Choice Award, where kids get to vote for their favorite entries. Check out <http://kidssciencechallenge.com/gallery08> to see last year's entries.

Once the winners are announced, everyone can follow the progress of the competition and the resulting experiments at kidssciencechallenge.com. We'll post news as it happens, and there will be new videos too!

ACTIVITY KITS

The first 1000 kids to submit a valid Entry Application via mail, via fax or via online application, will receive a FREE Science Activity Kit. The kit includes engaging hands-on activities in all of the *Kids' Science Challenge* Science Fields. For the fullest educational experience we recommend that *parents, teachers* or *After-School Group* leaders participate in the activities.

This year's kit includes, among other things: UV Beads that change color when exposed to sunlight, ink pads for a "blow up your fingerprint" activity, and Zoobs to create invention prototypes.

Thanks again for mentoring! If you have any questions or run into any problems along the way, please don't hesitate to contact us at info@kidssciencechallenge.com