



The 2009 Discovery Education 3M Young Scientist Challenge

Overview

The Discovery Education 3M Young Scientist Challenge is the premier national science competition for students in grades 5 through 8. The Young Scientist Challenge (YSC) is designed to encourage the exploration of science among America's youth and to promote the importance of science communication. In 1999, Discovery Communications, LLC launched the competition to nurture the next generation of American scientists at a critical age when interest in science begins to decline. Over the past nine years, more than 540,000 middle school students have been nominated to participate in the competition. Winners have gone on to speak in front of members of Congress, work with the nation's top scientists, and pursue academic careers in the sciences.

Process

In order to enter, students must be in grades 5 through 8, and must submit a video entry (see below) online at www.youngscientistchallenge.com between **January 15, 2009 and May 20, 2009**.

Students will be challenged to create a one- to two-minute video about a specific scientific concept which they will select from a list of concepts provided by YSC judges.

Video entries must demonstrate the student's understanding of the scientific concept explained and should also exhibit his or her comfort level discussing science in general.

Videos do NOT need to be "produced" or have high production value. Judges are not evaluating production skills. Videos may be recorded on cell phones or simple digital cameras, for example. In addition, local libraries and schools may be able to loan cameras to students.

Videos will be screened to determine whether they meet all entry requirements and will then be presented to a panel of online judges.

Over the summer, judges from Faraday Studios will review the video submissions and choose up to 51 semifinalists: one from each state and the District of Columbia. Winning entries will be based on the average of scores awarded by a panel of judges using the following rubric.

- Creativity (20%)
- Content meets stated contest criteria (30%)
- Persuasiveness (10%)
- Classroom suitability (10%)
- Overall Presentation (30%)

The Finals

In the fall, 10 finalists receive an all-expense-paid trip to New York, NY for the competition finals, consisting of a series of challenges, some in which may be in front of a live audience. These age-appropriate challenges are developed and administered by Head Judge Steve Jacobs, science educator, creator of “Jake’s Attic” and founder of Faraday Studios. Finalists will be judged on their communication and scientific problem solving skills. At the end of the competition, American’s Top Young Scientist will be awarded \$50,000 in U.S. savings bonds (a \$25,000 cash value), and other finalists will receive exciting prizes.

Prizing

Semifinalists (up to 51 - one from each State and the District of Columbia)

- \$250 Cash
- Tee-shirt
- Plaque for Middle School
- Plaque for Student's Teacher
- Certificate

Finalists (10 – chosen from the Semifinalists)

- An all expenses paid 2-night, 3-day trip, in late Sept., early Oct. for the student and ONE parent/guardian to New York, NY.
- \$1,000
- A YSC Medal
- Special YSC finalist apparel
- A chance to win various prize trips (in the past we've sent students to Space Camp, on a trip with Rangers at a National Park, etc).

First Place

- All of the above (except for the \$1,000) PLUS
- \$50,000 in U.S. Savings Bonds (Cash value \$25K)
- A trophy
- The title of "America's Top Young Scientist"



Frequently Asked Questions

1. How do I enter?

It's easy to enter! Go to www.youngscientistchallenge.com and register for the competition. We'll need your zip-code and your parent/guardian's email address. Once you've submitted those pieces of information, an email will go to your parent/guardian asking them to give you permission to enter.

2. Is the competition open to anyone?

If you're in the 5th-8th grade, yes. In its 10th year, the YSC officially opened for all 5th-8th graders nationwide (previously open only to students in ISEF-affiliated Science Fairs).

3. I don't have a camera, where can I get one?

There are lots of ways to get a camera. Did you know that many cell phones have cameras in them? Digital cameras are also good ways to make a short movie. If you don't have access to either, you can check with your teacher, school media center, or local Public Library.

4. How am I judged?

Video entries must demonstrate your understanding of the scientific concept explained and your ability to effectively communicate that concept. Videos do NOT need to be "produced" or have high production value. Judges are not evaluating production skills. Videos may be recorded on cell phones or simple digital cameras, for example. In addition, local libraries and schools may be able to loan cameras to students.

Entries that follow all of the rules and regulations will be based on the average of scores awarded by a panel of judges using the following rubric.

- Creativity (20%)
- Content meets stated contest criteria (30%)
- Persuasiveness (10%)
- Classroom suitability (10%)
- Overall Presentation (30%)

5. Who are the judges?

The video competition is judged by Head Judge Steve Jacobs, as well as judges from Faraday Studios.

6. When and how will I find out if I've won?

You will be contacted via phone/ email to alert you that you are a Semi-Finalist in early July. Finalists will be notified in early August.

7. What happens at the finals?

In early October, 10 student finalists receive an all-expense-paid trip to New York, NY for the competition finals, consisting of a series of challenges, some of which may be in front of a live audience. These age-appropriate challenges are developed and administered by Head Judge Steve Jacobs, science educator, creator of "Jake's Attic" and founder of Faraday Studios. Finalists will be judged on their communication and scientific problem solving skills.

8. What are the student prizes?

Semifinalists (up to 51 - one from each State and the District of Columbia)

- \$250 Cash
- Tee-shirt
- Plaque for Middle School
- Plaque for Student's Teacher
- Certificate

Finalists (10 – chosen from the 51 Semifinalists)

- An all expense paid 2-night, 3-day trip, October 5-7, 2008 for the student and ONE parent/guardian to New York, NY
- \$1,000
- A YSC Medal
- Special YSC finalist apparel

- A chance to win various prize trips (in the past we've sent students to Space Camp, on a trip with Rangers at a National Park, etc).

First Place

- All of the above (except for the \$1,000) PLUS
- A U.S. Savings Bond for \$50,000 (Cash value \$25K)
- A trophy
- The title of "**America's Top Young Scientist**"

9. I forgot my username/password, how can I find it?

When you registered, your username and password were emailed to you and your parent. Make sure to check your spam folders!

10. Why do my parents have to grant permission for me to enter?

In compliance with the Children's Online Privacy Protection Act of 1998, Parental/guardian consent is needed for any person under the age of 13 years to give personal information to a third party over the internet. In the case of our competition, your parent/guardian needs to grant consent for us to receive your entry.

11. I got nominated for the YSC at my State Science Olympiad competition. What does that mean?

If you were nominated at a State Science Olympiad competition, that means that through your participation and achievements with Science Olympiad, we have selected you to by-pass the first round of judging and go straight to the quarterfinalist level.

12. I got nominated for the YSC at my Local, State or Regional Science Fair. What does that mean? Is my video supposed to be about my Science Fair Project?

If you were nominated at a State Science Fair, that means that through your participation and achievements in Science Fair, we have selected you to by-pass the first round of judging and go straight to the quarterfinalist level. Your video should NOT be about your Science Fair Project. In order to judge everyone on an even playing field, we have pre-selected 4 topics that you may make your video about. We challenge you to create a one-to-two minute video about one of these topics.

13. Are there rules and guidelines about how to make my video?

Yes, it is very important that you read and comply with the Official Rules and Regulations and Safety Guidelines. They are available at www.youngscientistchallenge.com.

14. Are there examples of successful videos that I can watch?

For examples of the types of videos we are looking for, you can check out www.youngscientistchallenge.com.

15. Are there other resources that I can explore?

Check out our links page! <http://www.youngscientistchallenge.com/checkitout/resources.html>

16. What if I have a question that is not addressed here?

Contact us at YSC@Discovery.com



Attention Young Scientists!

We're looking for kids who know how cool science can be, and are ready to show off their talent. We're combing the country for the top 5th-8th grade students and asking them to make a video that explains one of these scientific topics. If your video wins, you just might be crowned America's Top Young Scientist of the Year!

(1) Demonstrate a method, or fabricate and employ a common device or material which will alter (dampen, or enhance) the sound emitted from a household communication or entertainment device.

Example: How can I play my music system for my own enjoyment, without disturbing the rest of the house?

(2) Adapt a common household material or device to enhance the performance of any sports or recreation device and implement it.

Example: What can I do to the soles of my shoes to make them better perform when I skate board?

(3) When we encounter an area of our house that is always "too dark," often our first inclination is to add another lamp or light fixture. Using common materials and items found around your home, demonstrate an alternative strategy for bringing light to a darkened area of your home without adding or subtracting the number of lamps or light fixtures. Alternatively, present an innovative method for dimming ambient light.

Example: How can I make the dark corner of my room brighter, without adding more electric lights? Or, there is too much glare on my television screen which hinders my video gaming. What innovative method can I devise to resolve that problem?

(4) Design and implement an engaging method to demonstrate and explain how heat consumed in the home may be conserved or better distributed throughout the house. Alternatively, you may opt to "reverse the energy flow" and demonstrate an innovative method for improving the removal of heat from your home.

Example: What device or method can you contrive which might help lower your family's heating or cooling bills?

Enter today at www.youngscientistchallenge.com

The YSC is open for entries from January 15, 2009 through May 20, 2009

DISCOVERY EDUCATION 3M “YOUNG SCIENTIST CHALLENGE” OFFICIAL RULES

- 1. ELIGIBILITY:** The Discovery Education 3M “Young Scientist Challenge” (“Contest”) is open to all legal U.S. residents who are students enrolled in 5th through 8th grade at a public, private, parochial, or home school located in one of the fifty states or the District of Columbia. Former Young Scientist Challenge finalists are not eligible to enter the Contest. In order to be considered eligible, students must be currently enrolled in 5th through 8th grade and comply with the safety guidelines set forth below (“Safety Guidelines”). Employees, officers and directors of Discovery Education (the “Sponsor”) and 3M (“Promotional Partner”), its subsidiaries, affiliates, advertising agencies, promotional suppliers, and Faraday Studios (the “Judges”), 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. CONTEST PERIOD:** The Contest period commences on **January 15, 2009 and expires at 11:59 PM EST on May 20th, 2009.**
- 3. BRIEF CONTEST DESCRIPTION:** Eligible students shall have the opportunity to create a video that communicates one of the scientific concepts outlined in Section 5 below. For a student to officially enter the Contest, the student must be registered as described below and his/her video must be uploaded between January 15, 2009 and 11:59 PM EST on May 20, 2009. Limit one entry per student. The student with the highest score from each state, including the District of Columbia, will be considered a semifinalist (51 in total). Of the 51 semifinalists, the ten (10) with the highest overall scores will be selected as finalists and will compete for the Grand Prize (described below).
- 4. TO REGISTER AND ENTER:** Starting on January 15, 2009, visit www.youngscientistchallenge.com, click on the Contest banner, tile or link and follow the on-screen directions to complete the on-line entry form by entering your zip code and by providing your parent or legal guardian’s email address (“Entry Request”). Then submit this information in accordance with the on-screen instructions during the Contest Period. **Important:** In the Entry Request you must provide your zip code and your parent or legal guardian’s valid, verifiable email address. Sponsor will send an email to your parent or guardian advising him/her of your attempt to enter this Contest. In that parental email notification your parent/guardian will be given the opportunity to consent/authorize your entry into this Contest by completing and electronically signing the consent form that is generated by clicking on the consent form link in the email (“Consent Form”). This Consent Form from your parent/legal guardian must be emailed and received, in accordance with the directions found in the form, by no later than **11:59 P.M. ET on May 19, 2009** . Once the parent/guardian submits the Consent Form, a registration page will appear on-line as a separate pop-up window (“Registration Page”), and the parent/guardian must complete the information requested in the Registration Page by no later than **11:30 PM ET on May 20, 2009**, which includes without limitation, the student’s full name, home address, home phone, email address, birth date, age, gender, school grade, parent/legal guardian’s name and email address, school information and local media information. In addition, the Registration Page will offer a check box for the parent / guardian to select whether the student has been nominated to participate in this Contest through a Science Fair or State Science Olympiad. Once the parent/guardian submits the Registration Page by clicking send, the parent/guardian will be prompted to set up a username and password for the student. Username

and password confirmation will be sent to both parent/guardian and student at the emails provided in the Registration Form. The student shall use his/her username and password in order to submit his/her video.

If your parent/legal guardian does not submit the Consent Form and the Registration Form by the applicable dates stated above, you will not be able to enter the Contest.

5. SCIENTIFIC CONCEPTS

Each student must select one (1) of the following scientific concepts (each a “Scientific Concept” and collectively (“Scientific Concepts”)):

(1) Demonstrate a method, or fabricate and employ a common device or material which will alter (dampen, or enhance) the sound emitted from a household communication or entertainment device.

Example: How can I play my music system for my own enjoyment, without disturbing the rest of the house?

(2) Adapt a common household material or device to enhance the performance of any sports or recreation device and implement it.

Example: What can I do to the soles of my shoes to make them better perform when I skate board?

(3) When we encounter an area of our house that is always “too dark,” often our first inclination is to add another lamp or light fixture. Using common materials and items found around your home, demonstrate an alternative strategy for bringing light to a darkened area of your home without adding or subtracting the number of lamps or light fixtures. Alternatively, present an innovative method for dimming ambient light.

Example: How can I make the dark corner of my room brighter, without adding more electric lights? Or, there is too much glare on my television screen which hinders my video gaming. What innovative method can I devise to resolve that problem?

(4) Design and implement an engaging method to demonstrate and explain how heat consumed in the home may be conserved or better distributed throughout the house. Alternatively, you may opt to “reverse the energy flow” and demonstrate an innovative method for improving the removal of heat from your home.

Example: What device or method can you contrive which might help lower your family’s heating or cooling bills?

6. VIDEO SUBMISSION

To enter, a student must submit one, and only one, entry video explaining and/or demonstrating one of the Scientific Concepts listed above in Section 5 (the “Entry Video”).

The Entry Video must be longer than 60 seconds, but not longer than 120 seconds. The Entry Video must be the original work of the student. Only the student can appear in the Entry Video, no other individuals should be filmed. Students must work independently on the development of their video concept and must record their video with minimal help or direction from others. Entries WILL NOT be accepted which include non-student work.

To upload the Entry Video, the student must visit, during the Contest Period, www.youngscientistchallenge.com and login by using his/her username and password to enter the upload page. At the upload page the student will be prompted to upload his/her Entry Video and, if desired, to provide a photograph and brief biographical information. Entry Videos must be submitted as a Quicktime/MOV, WMV, MPEG, or AVI file on the Contest upload page. **Completed Entry Videos must be received between January 15, 2009 and 11:59PM EST on May 20, 2009.** No entries will be accepted before or after such period.

Entry Video 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 video unless student is the copyright owner of said material. Submissions that are deemed by the Judges in their sole discretion to be immoral, obscene, profane or not in keeping with Sponsor's image will be disqualified. 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. Other than for semifinalist and finalist notification, neither Sponsor, nor anyone acting on its behalf, will enter into any unsolicited communication with any entrant regarding this Contest, nor will entries be acknowledged or returned.

Participation in the Contest 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 Video is an original creation of the student's; has not been previously published or won any award; 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.

7. JUDGING: There are four (4) 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. Students who have been nominated for this Contest at their State Science Olympiad and/or Science Fair will automatically advance to Round 2.
- Round 2: Judges will then score each Entry Video. Students will be scored on their ability to understand and effectively communicate the Scientific Concept they have chosen for their Entry Video. Each Scientific Concept shall be treated equally. Scores will be broken down in to 5 areas:
 - (i) Creativity (20%);
 - (ii) Content's relation to stated criteria (30%);
 - (iii) Persuasiveness (10%);
 - (iv) Classroom suitability (10%); and
 - (v) Overall presentation (30%).

The Judges will select a semifinalist from each state from which an entry is received including the District of Columbia (up to 51 semifinalists in total). The student with highest score from each state, including the District of Columbia, (according to this rubric) will be considered a semifinalist (up to 51 in total). The semifinalists will be announced on or about July 8, 2009.

- Round 3: Of the semifinalists, the ten (10) with the highest overall scores will be selected as the finalists and will be eligible for the Contest prizes. The 10 finalists will be announced on or about August 4, 2009. In the event of any ties, the overall presentation score will be used as a tiebreaker.

- Round 4: On or about October 5 – 7, 2009, the 10 finalists will compete in a series of challenges, some of which may be in front of a live audience at a New York, NY location to be determined by Sponsor. These age-appropriate challenges are developed and administered by head Judge, Steve Jacobs, science educator, and creator of “Jake’s Attic” and founder of Faraday Studios. The finalists will be judged on their communication and scientific problem solving skills. Sponsor may disclose the topics, challenges and judging criteria prior to October 5, 2009. Student who scores the highest score according to the judging criteria will be deemed the Grand Prize winner.

All Judges’ decisions are final.

8. PRIZES:

- **51 Semifinalist Prizes:** Each semifinalist will receive: \$250 check, Contest certificate, Young Scientist Challenge Tee-shirt (ARV \$10.00). In addition, his/her school will win a Contest plaque for his /her Middle School and a plaque for the Student's Teacher.
- **10 Finalist Prizes:** All 10 finalists shall win the following:
 - 3 day / 2 night hotel accommodations for the finalist and his/her parent or legal guardian (one standard room of double occupancy) in New York, NY on or about October 5 – 7, 2009 to compete in the Contest finals for the Grand Prize (as defined below). The finalist prize also includes roundtrip airfare for the finalist and his/her parent or legal guardian from a major airport nearest the finalist home (airport and airlines selected by Sponsor in its sole discretion), ground transportation to and from the airport and to and from the Contest, select events, and meals. Meals shall consist of 3 breakfasts, 2 lunches and 2 dinners [Approximately retail value (“ARV”) \$2,300.00]. 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 New York, NY, 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.
 - Opportunity to compete in the Contest finals
 - \$1,000.00 check,
 - Contest medal,
 - Special finalist apparel (ARV \$20.00), and
 - Chance to win various prizes at the Contest reception.
- **Grand Prize*:** The Grand Prize winner will receive the following:
 - \$50,000 in U.S. Savings Bonds. (Cash Value \$25,000.00)
 - Contest trophy, and
 - The title of "America's Top Young Scientist".

* For the avoidance of doubt, the Grand Prize winner will also receive all of the semifinalist prizes, except for the \$1000.00 check; instead he/she will win \$50,000 in U.S. Savings Bonds.

The semifinalists and finalists will be notified by email or by telephone (as provided on the Registration Page) and will be sent a claim form, which parent or legal guardian of the finalist will be required to sign and return to Sponsor. All semifinalists and finalists, upon being selected, must submit a completed and signed Appearance Consent and Release Form for the final competition and any on-air program about the competition, which parent or legal guardian of the semifinalist and finalist will be required to sign and return to Sponsor. The Grand Prize winner will be notified at the Contest. In addition, each finalist 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. The parents of each finalists hereby agree that your child, as a finalist, will participate in all advertising, publicity (including live and taped television appearances), press, and promotional events scheduled by Sponsor in connection with the Contest. Failure to participate in said events may result in disqualification and forfeiture of prizes.

9. All taxes on prize and all expenses related to acceptance and use of the prize 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; and [b] 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 Contest 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. Based on releases/affidavits and the details of the Consent Form provided, entrants agree to grant Sponsor: [a] all rights of ownership, reproduction and use of entry and Entry Video 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, Video 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 websites 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 Contest or any portion thereof should viruses, bugs or other causes beyond the control of Sponsor corrupt the administration, security or proper play of the Contest, 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.youngscientistchallenge.com. Entries may not be made by any other individual or any entity, and/or originating at any other Internet website 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 Maryland, with jurisdiction and venue in Montgomery County, Maryland, and all claims must be resolved in the courts of Montgomery County, Maryland.

- 10. WINNERS LIST:** To receive the Grand Prize winner's name, mail a self-addressed, stamped envelope to be received by December 31, 2009, to: Young Scientist Challenge Winner List, One Discovery Place, HC04-03D, Silver Spring, MD, 20910.

Sponsor: Discovery Education, Inc, One Discovery Place, Silver Spring, MD 20910.

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GENERAL SAFETY GUIDELINES:

The guidelines are for your general knowledge and are not a substitute for professional advice or common sense. Be sure to thoroughly research your scientific concept prior to performing your project.

1. Research the scientific concept thoroughly to understand any dangers involved in your demonstrations.
2. You cannot use (i) human blood/body fluids, (ii) animals, (iii) live ammunition, firearms, or explosives, (iv) poisonous plants, or (v) radioactive material.
3. Parts of the body are not to be placed in danger. Do not directly view the sun, infrared, or ultraviolet sources.
4. Do not taste any non food substance or food substance that has been subjected to possible contamination.
5. Dress safely for your presentation (e.g., gloves, eye protection, an apron, ear protection, safety shield, etc.).
6. Keep quantities of hazardous materials to a minimum, and always have waste containers for the disposal of such materials.
7. Comply with all local fire and safety rules and regulations; Use caution when heating all forms of matter; always have a fire extinguisher available.
8. Thoroughly check all motors to make sure all parts are sturdy and that safety nuts are securely fastened.
9. Always check to see if certain elements of your demonstration require you to obtain state and/or local permits. Always obtain the necessary permits prior to conducting your demonstration.
10. Always practice your demonstration before filming.

We strongly recommend that you review the safety guidelines established by the National Science Teachers Associations at <http://www.nsta.org/pdfs/SafetyGuidelines.pdf>.