



## The 2016 Discovery Education 3M Young Scientist Challenge

### Overview

The Discovery Education 3M Young Scientist Challenge is a premier national science competition for students in grades 5 through 8. The Young Scientist Challenge is designed to encourage the exploration of science and innovation among America's youth and to promote the importance of science communication. In 1999, Discovery Communications launched the competition to nurture the next generation of American scientists at a critical age when interest in science begins to decline. In 2008 3M joined forces with Discovery Education in a quest to nurture the next generation of American scientists with an innovative and interactive science program open to every middle school student in America. Over the past 18 years, winners have gone on to speak in front of members of Congress, work with the nation's top scientists, and pursue academic careers in science.

### 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](http://www.youngscientistchallenge.com) **by April 20, 2016.**

Students are challenged to create a one-to-two-minute video describing an innovative solution to a real-world problem using science and engineering principles. 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. Judges will review the video submissions and choose the 10 national finalists who will go on to compete for \$25,000 and the title of "America's 2016 Top Young Scientist." Judges will then identify *up to* 51 state merit winners: 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:

- (i) Creativity (ingenuity and innovative thinking) (30%);
- (ii) Scientific knowledge (30%);
- (iii) Persuasiveness and effective communication (20%); and
- (iv) Overall presentation (20%)

## Summer Mentorship

In June, 10 national finalists will be paired with 3M scientists to complete a summer assignment having to do with innovation. Together they will work virtually through pre-assigned objectives with resources and support provided by Discovery Education and 3M.

## The Finals

In the fall, the 10 finalists will receive an all-expense-paid trip to the competition finals (October 2016 at 3M's world headquarters in St. Paul, MN), consisting of a series of scientific challenges designed for students in grades 5 through 8. Finalists will be judged on their scientific problem solving and communication skills.

## Prizing

### First Place

- \$25,000
- The title of "America's Top Young Scientist"
- A once-in-a-lifetime opportunity to attend a taping of a Discovery network show
- A Contest Trophy

### 10 Finalists

- A trip for the student and ONE parent/guardian to competition finals
- \$1,000
- A chance to win an opportunity to attend a taping of a Discovery network show
- A Contest Medal

### Three Runner-Up Prize Winners

- A once-in-a-lifetime opportunity to attend a taping of a Discovery network show

### Honorable Mention (total of 6 awarded)

- "Excitations" for a \$500 excursion, subject to terms at <https://discovery.excitations.com/about/terms>

### Merit Winners (up to 51 - one from each State and the District of Columbia)

- 3M Innovation Prize Packs

## Video Topics

### VIDEO SUBMISSION

The challenge is to create a one- to two- minute video that...

- explains the problem and how it impacts the entrant, their family, their community or the global population;
- describes a new innovation or solution that could solve or impact the problem;
- explains the science, technology, engineering and/or mathematics behind their innovation; and
- illustrates how their innovation could both address the everyday problem they've identified and have a broader impact locally or globally.

### THOUGHT STARTERS

The following ideas are thought-starters to help students identify a problem and think about a creative solution. Students are encouraged to consider one of these topics or come up with their own ideas!

**HOW WE MANUFACTURE:** From automobiles to your kitchen sink, manufacturing is essential to making every day life run more efficiently.

What kinds of technologies, innovations, or solutions might:

- Ensure clean breathing air for people in all communities?
- Provide safe drinking water to people across the world?
- [See how our 2015 winner Hannah Herbst thought to use energy from ocean currents to provide a power source and fresh water to developing countries.](#)
- Help increase the production of goods without the use of fossil fuels?
- Improve the efficiency of production at minimal costs?

**HOW WE PROVIDE ENERGY:** Energy is the key to keeping the world working and one of the most fundamental parts of our daily lives.

What kinds of technologies, innovations, or solutions might:

- Help plants grow in dry climates?
- Provide electricity to underdeveloped countries?
- Make transportation easier without automation?
- Help limit the amount of fossil fuels in the environment?
- Find ways to help people reduce their environmental footprint?
- Reuse energy in creative ways?

**HOW WE STAY SAFE:** Whether you're on the sports field or crossing the street, safety should always come first.

What kinds of technologies, innovations, or solutions might:

- Detect and alert people of the likelihood of an accident happening?
- Protect people from workplace dangers?
- Make it safer to travel during bad weather?
- Prevent a sports related injury from happening?
- Create ways to reduce the risk of accidents?

**HOW WE STAY HEALTHY:** Living a healthy lifestyle and ensuring the health of others is crucial to having long and productive lives.

What kinds of technologies, innovations, or solutions might:

- Provide healthy foods to all communities?
- Detect and alert people of the onset of health problems?
- Make healthcare products available to underdeveloped communities?
- Perform diagnostics without the use of modern technology?