



Education Program Screening: *Science Fair*

Directors: Darren Foster, Cristina Costantini

90 minutes, documentary in English

Please use the below synopsis and study questions to lead your students in film preparation and post-screening discussion. Following the field trip, students are required to respond to the screening with a one-page essay. Essays must be sent to Cinema/Chicago in order to receive invitations to subsequent film screenings.

About the film

Hailed by critics as “infectious and exuberant” and “the funniest movie of the year,” National Geographic Documentary Films’ SCIENCE FAIR follows nine high school students from around the globe as they navigate rivalries, setbacks and, of course, hormones, on their journey to compete at the International Science and Engineering Fair. As 1,700 of the smartest, quirkiest teens from 78 different countries face off, only one will be named Best in Fair.

The film, directed by the documentary filmmaking team of Cristina Costantini and Darren Foster, offers a front-row seat to the victories, defeats and motivations of an incredible group of young men and women who are on a path to change their lives — and the world — through science. SCIENCE FAIR won the audience award at the Sundance and SXSW film festivals.

Fast Facts

- High school science fairs date back to 1942, when William Emerson Ritter and Edward W. Scripps created “The Science Talent Search.” The first American National Science Fair was won by 18-year-old Alan J. Fletcher, for his display on the laws of motion.
- Science fairs became increasingly popular in the 1950s and ’60s. American leaders saw science as a way to both confront some of the greatest global challenges and progress as a society.
- Science is one of the most important areas of study. Right now, over 9 million jobs relate to science, and more are being added every year.

- ISEF is the world's largest international pre-college science competition. About 1,700 students from more than 78 countries compete every year for \$4 million in prizes.
- One of the film's directors, Cristina Costantini, attended ISEF as a high school freshman, placing fourth. That year, all ISEF winners earned a named asteroid by the MIT Lincoln Laboratory.
- There has never been a better time to study science, technology, engineering and math. The number of students pursuing STEM degrees has dropped by half since 1997, making STEM students more in demand than ever.

Discussion Questions

Film-Specific Questions

1. Kashfia found herself poorly represented and often unappreciated by her classmates and school. How do you suggest a student could increase his or her school's involvement in supporting science fair-related competitions? Have you ever felt discouraged from pursuing your interests? How did you motivate yourself to persevere?
2. Despite being very intelligent, Robbie didn't get into college after he graduated high school. But now, he's been featured on the cover of "Bloomberg Weekly," created a fashion line with his Balenciaga artificial intelligence-influenced designs and is showing his AI-created art in Paris, France. How can you use Robbie as an influencer and role model to develop your interests? How can you learn or develop your own unique interests outside school?
3. Anjali faced criticism for being "too competitive" or "too confident," but we saw that her intelligence and confidence helped her succeed and persist through challenges. She used her innate motivation to help herself and others. What steps can you take to feel confident in yourself while serving as an example to others?
4. Ivo turned his childhood love of planes and flight into an award-winning science fair project. What passion or interest could you turn into a project? What resources could you use to develop that project?
5. One pair that traveled hundreds of miles to compete at ISEF was Myllena and Gabriel. Does their determination to succeed despite limited resources inspire you? If so, how?

6. Why does Dr. McCalla emphasize the importance of a cogent and confident verbal presentation? Why is how you present your project or product important to obtaining success when sharing an idea or invention with others?
7. Who do you think had the most interesting project? The most important? The most fun?

General Inspiration Questions

1. If you could solve one issue in your community through science, what would it be? Can you think of a project you could develop to address that issue?
2. Winning ISEF is the crowning achievement for young scientists. In your wildest dreams, what would be your biggest accomplishment?
3. Which scientific or STEM organizations can you get involved with in your community?
4. What type of science interests you the most and why? Some scientific disciplines include behavioral sciences, chemistry, robotics, geology, medicine and health, cellular and molecular biology, and environmental engineering.

Resources

- Learn more about the International Science and Engineering Fair: student.societyforscience.org
- Explore online learning and how to code: codecademy.com
- Find science research-related tools and mentorship opportunities: iresearchfoundation.com
- Find STEM resources in your community: theconnectory.org
- Identify support-based resources: donorschoose.org
- Utilize free education training and subject-based online tutorials: khanacademy.org
- Learn more about the film: sciencefairfilm.org

Guide prepared by National Geographic, Documentary Films

Send study guide response essays to Rosie Galicia at rosie@chicagofilmfestival.com or in the enclosed envelope.