**Power to Explore Challenge 2026-27 FAQs**
https://www.futureengineers.org/powertoexplore2027

**What is the Power to Explore Challenge?**
Embark on an exciting challenge to explore the Moon! Dream about exploring the Moon with NASA using nuclear power! Create one illustration and a written submission of 200 words or less that accomplishes the following:

**YOUR ILLUSTRATION:** Learn how nuclear energy can be used in lunar exploration and illustrate your vision of a nuclear-powered lunar base that supports human and robotic exploration of the Moon's surface. Showcase the following nuclear power sources within your illustration:

- **Radioisotope Power Systems (RPS):** An RPS is a small but mighty type of nuclear technology—able to power exploration of the coldest, darkest and dustiest corners of space for decades! RPS relies on the natural heat of plutonium-238.
    - A **Multi-Mission Radioisotope Thermoelectric Generator (MMRTG)** generates small amounts of electricity. It is the perfect, ultra-reliable power system for remote observation equipment or robotic explorers and is currently used to power the Mars Curiosity and Perseverance rovers. What could it power on the Moon?
    - A **Radioisotope Heater Unit (RHU)** generates heat. It won't provide electricity, but it will help space technologies that need to stay warm or survive cold lunar nights. What could it keep warm on the Moon?
- **Space Reactor Systems:** The reactors being developed to meet the growing demand for power in space can be more powerful—able to generate plentiful energy on demand. They use a process called nuclear fission, in which neutrons collide with uranium atoms, causing them to split and release energy. This creates a controlled chain reaction that produces heat, which is then converted into electricity.
    - **Fission power systems** will generate great amounts of energy by converting the heat to electricity. Large fission systems on Earth can power entire cities, but what could these smaller reactors power on the Moon? This technology would make an ideal, robust energy source for living, working, and building things on the Moon.

**YOUR WRITTEN SUBMISSION:** We want to hear what powers you! Using 200 words or less, describe at least one personal superpower that could help NASA explore the Moon with nuclear power. Whether you are an astronaut on the Moon one day, or whether you use your powers here on Earth, it takes a team of many different skills and personality traits to explore! Describe how your unique superpower will help explore the Moon.

Explore the **EDUCATION RESOURCES** to brainstorm ideas and learn more about nuclear power and the Moon. Your entry must be original and entirely your own—no generative AI is allowed – and don't include your name or anyone else's name in your entry. Read the **RULES** for all requirements. Entries will be judged in three grade groups: K-4, 5-8, and 9-12. Every student who enters will get a digital certificate and an invite to a virtual event with NASA

nuclear power experts, where students will learn what powers the NASA workforce to dream big and explore. Fifteen semifinalists per grade group (45 total) will win a NASA Prize Pack. Three national finalists per group (9 total) get a virtual session with a NASA expert. One grand prize winner per group (3 total) wins a trip for two to NASA's Glenn Research Center in Cleveland.

Good luck!

**Who can enter?**

- Individual K-12 students attending U.S. public, private, or home schools can enter, including U.S. territory, DoDEA, and BIE schools. NO team entries are allowed. Children and students who live in the same household as NASA employees are not eligible to enter. For all eligibility details, please refer to the rules.

**Can homeschool or after school program students participate?**

- Yes. Any K-12 student in the U.S. can participate in this contest.

**What's the Timeline for the NASA RPS Power to Explore Challenge?**

- Contest Launch: November 17, 2026
- Entries Due: March 1, 2027
- Virtual Event & Semifinalists Announced: April 22, 2027
- Finalists Announced: May 11, 2027
- Winners Announced: May 13, 2027

**Are entries divided into age groups?**

- Yes. Entries will be separated into three categories of grades — K-4, 5-8, and 9-12, — to be judged. Fifteen semifinalists (45 total), three finalists (9 total), and one winner (3 total) will be selected in each grade category.

**What are the prizes?**

- Fifteen national semifinalists in each grade category (45 semifinalists total) will receive a NASA Prize Pack. Three national finalists in each grade category (9 finalists total) will receive a virtual session with a NASA expert and a finalist prize pack. One grand prize winner from each grade category (3 total) will receive a trip for two to **NASA's Glenn Research Center** in Cleveland, Ohio, to learn about the people and technologies that power NASA missions.

**What does a Power to Explore entry consist of?**

- TITLE of your entry
  - Maximum 75 characters
- ILLUSTRATION of your lunar base
  - maximum 10MB;
  - JPG, JPEG, PNG, BMP, GIF, SVG or HEIC
- WRITTEN SUBMISSION of your superpower
  - 200 words or less

**Can I send my entry via U.S. Mail?**

- No. Only entries submitted online at https://www.futureengineers.org/powertoexplore are accepted. No exceptions.

**I'm a minor. Can I enter the contest on my own?**

- Entrants in class must be linked to their teacher's account to enter– either by entering a teacher's class code during registration or by your teacher registering for you. If you are not participating with a teacher and are a minor, you must get a parent's or legal guardian's permission to enter.

**Can one entry be submitted by a team of students?**

- No. This is an individual contest.

**Can I submit more than one entry?**

- No. You may only submit one entry for the Power to Explore Challenge; however, you are welcome to edit your entry until the contest deadline on March 1, 2027. Your last submitted entry is the one that will be considered the final entry.

**How and when do I submit my entry?**

- Please log in to your Future Engineers account, go to your dashboard or the Power to Explore webpage, and submit your entry on or before March 1, 2027. For more detailed instructions, refer to the How to Submit help article.

**How are the entries judged?**

A panel of judges will review eligible entries based on the following criteria.

- 25 points: How well your lunar base supports human/robotic exploration and scientific discovery on the Moon
- 25 points: Visual communication of radioisotope power system technologies on the Moon
- 25 points: Visual communication of fission power system technologies on the Moon
- 25 points: Quality of the ideas presented in your written entry

**Is this Contest open to International Participants?**

- No. This contest is only open to students in the United States and its territories.

**Do I need to get parent signatures for students to participate?**

- Parent signatures are not required to enter the contest; however, the potential winners' parents or legal guardians will be notified via email, and they will be required to sign and return additional documents by a specified time, which may include an Affidavit (or Declaration, as determined by Sponsor) of Eligibility, Liability and, where legal a Publicity Release.

**One of my parents works for NASA. Am I eligible to participate?**

- No, children of NASA employees are not eligible to enter.