

Super Space Careers

Do you think it would be awesome to work in outer space someday? By the time you're grown up, there will be missions to space stations, the moon, and Mars. Read on to learn about the real-life skills you might need for a job in space!

ROCKET ENGINEERS design rockets and other spacecraft.

Science they use: Rocket engineers create rockets that can escape Earth's gravity (that's the force that pulls objects down). Rockets work using a process called **propulsion** to fly into outer space. If you've ever let go of a balloon you've blown up, you've seen propulsion at work. Air escaping from the end of the balloon moves it forward in the opposite direction. A rocket basically does the same thing to fly into space.

Problems they solve: Rocket engineers have to design spacecraft that doesn't carry extra weight or air resistance and is safe and effective.

Skills: Working with advanced computers; coding; writing reports; geometry and physics; teamwork.

ASTRONAUTS travel into space to complete missions.

Science they use: Astronauts use science and engineering skills



to conduct experiments while they're in space. But they spend most of their time on Earth, training or helping

other astronauts from the ground.

Problems they solve: During training, they must learn how to survive and work in space. They use special equipment called **simulators** that make it feel like they're in space.

Skills: Engineering and operating spacecraft; calculus and algebra; physical fitness; collaboration.

ROBOTICS ENGINEERS design, test, and build robots.

Science they use:

These engineers create robots (machines

that do dangerous or hard jobs) and computer software to perform important tasks in outer space.

Problems they solve: Robotics engineers make it easier for astronauts to explore parts of space that aren't safe for humans. They also solve other space challenges, like creating a robotic arm to help an astronaut lift heavy equipment.

Skills: Working with computer design programs; coding; algebra and calculus; critical thinking; problem-solving.



Name _____

What's Your Space Job?

Read "Super Space Careers," then use information from the text to fill in the chart below.

Define these jobs

Problems they solve

Rocket Engineer

Robotics Engineer

Astronaut

Write answers to these questions on the back of this page.

1. Which job interests you the most? Why?
2. What skills will you need?
3. What could you do to start practicing those skills?

