

DISASTERS

A photograph of a space shuttle launching from a launch pad. The shuttle is ascending vertically, leaving a large, bright plume of fire and white smoke behind it. The launch pad's service structure is visible to the left of the shuttle. The background is a clear blue sky.

# SPACE DISASTERS

ANN WEIL

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## CHAPTER 1 | Introduction

# DATAFILE

### Timeline

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#### April 12, 1961

Yuri Gagarin, Russian cosmonaut, is the first person to enter outer space.

#### July 20, 1969

Neil Armstrong is the first person to walk on the moon.

### Where is Russia?





### **Did You Know?**

The *International Space Station* is the largest scientific project in world history. Astronauts from different nations work together in teams of three for months at a time.

### **Key Terms**

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**astronaut**—a person who is trained to go into outer space

**cosmonaut**—a Russian astronaut

**gravity**—the force that pulls objects toward the center of Earth

**space station**—a spacecraft that stays in space for a long time

## **CHAPTER 1** | Introduction

On July 20, 1969, astronaut Neil Armstrong stepped onto the moon. Millions of people watched this amazing event on television.

No one had ever stood on the moon before. It changed how people thought about our planet and the universe.

Now, space travel doesn't seem so extraordinary. A rocket blasting off isn't always big news anymore. Hundreds of astronauts and scientists have traveled in space.

Some people have even become space tourists. They pay a lot of money to spend a week in space. Now, people even live in space for months at a time.



*Apollo 11* astronaut Buzz Aldrin poses for a portrait on the moon.

## Science Fiction/Science Fact

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It's hard to believe that less than 50 years ago, space travel was just a fantasy. Science fiction books and movies put people in outer space. But it wasn't until 1961 that someone traveled into space.



Footprint on the surface of the moon

The first person to go into space was a Russian man named Yuri Gagarin. He orbited Earth once in a Russian rocket. Then he landed safely.

Not every space mission has gone so well. Some space accidents damage very expensive equipment. Even a minor accident can cost millions of dollars. This can be a disaster for a country's space program.

Space travel is risky. Some astronauts have died in space accidents. The total number of space-related deaths is low. But these tragedies seem much bigger. Fortunately, there are very few space disasters.

## **The First Space Stations**

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The first space stations were small laboratories that orbited Earth. Astronauts traveled to the space station in rockets. They lived and worked in space for months at a time.



There is no gravity in space. People and things are weightless. Scientists studied the effects of living in space on people and other living things. They learned a lot from experiments on these early space stations.

The Russians built the first space station. *Salyut 1* was launched on April 19, 1971. The American space station, *Skylab*, was launched two years later, in May 1973.

The Russians launched their eighth space station, *Mir*, in February 1986. *Mir* means “peace” in Russian. *Mir* cosmonauts became the first people to spend more than a year in space.

There were many problems with the early space stations. Some of these turned into disasters. But the lessons learned from these catastrophes helped make the newest space station—the *International Space Station*—better and safer.

## ***The International Space Station***

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Americans and Russians work with astronauts and scientists from other countries on the *International Space Station*. They do many different scientific experiments. The results of these experiments can help us learn more about life in space and life on Earth.

The *International Space Station* (ISS) orbits the Earth. Astronauts live and work on the ISS for about three to six months. Then a new crew comes to the ISS to continue the work.

The ISS is the only space station orbiting Earth. The earlier space stations are no longer in orbit.

## ***Skylab* in Trouble!**

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*Skylab* was launched on May 14, 1973. It was more than three times larger than *Salyut 1* and weighed about 100 tons. But only one minute after taking off, *Skylab* was in serious trouble. A big meteor shield fell off. It tore away a large screen of solar panels. NASA launched a team of three astronauts to fix the space station. The astronauts fixed the problem while *Skylab* orbited Earth.