



Teacher Resource

Uranus Mission

Focus Questions

Discuss the BTN story as a class and record the main points of the discussion. Students will then respond to the following:

1. Who wants to send a mission to Uranus?
2. What spacecraft has got the closest to Uranus?
 - a. Voyager 1
 - b. Voyager 2
 - c. International Space Station
3. Uranus was discovered before telescopes were invented. True or false?
4. Why does Uranus appear blue?
5. How many moons orbit Uranus?

Activity: Quick Uranus Quiz

Begin the Uranus activity with a quick true or false quiz. Circle the correct answer.

1. Uranus is the 7th planet from the sun.	True	False
2. Uranus is smaller than Earth.	True	False
3. The atmosphere of Uranus is made up mainly of hydrogen and helium.	True	False
4. Hydrogen gives Uranus its blue green colour.	True	False
5. Uranus rotates on its side.	True	False

Answers: 1 True, 2 False, Uranus is about four times the diameter of Earth, 3 True, 4 False, methane gives Uranus its blue green colour. 5 True

Activity: Glossary

Students will brainstorm a list of key words that relate to the BTN Uranus Mission story. Here are some words to get them started.

PLANET	SOLAR SYSTEM	ICE GIANT
ATMOSPHERE	ROTATE	ORBIT

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KEY LEARNING

Students will learn more about Uranus and why astronomers want to explore it.

CURRICULUM

Science – Year 5

The Earth is part of a system of planets orbiting around a star (the sun).

Scientific knowledge is used to solve problems and inform personal and community decisions.

Science – Years 5 & 6

With guidance, pose clarifying questions and make predictions about scientific investigations.

Science involves testing predictions by gathering data and using evidence to develop explanations of events and phenomena and reflects historical and cultural contributions.

Did You Know?

The radioactive element uranium was named after Uranus when it was discovered in 1789

Activity: Class Discussion

Discuss the BTN Uranus Mission story as a class. Ask students to record what they know about the planet. What questions do they have? Use the following questions to help guide discussion:

- Make a list of all the things you know about Uranus.
- How similar are Uranus and Earth?
- What are some differences between Uranus and Earth?
- Can humans survive on Uranus? Why or why not?
- Why does NASA want to send a probe to Uranus?
- What might be some of the challenges of exploring Uranus?
- Think of three unanswered questions you have about Uranus. Share them with the class.

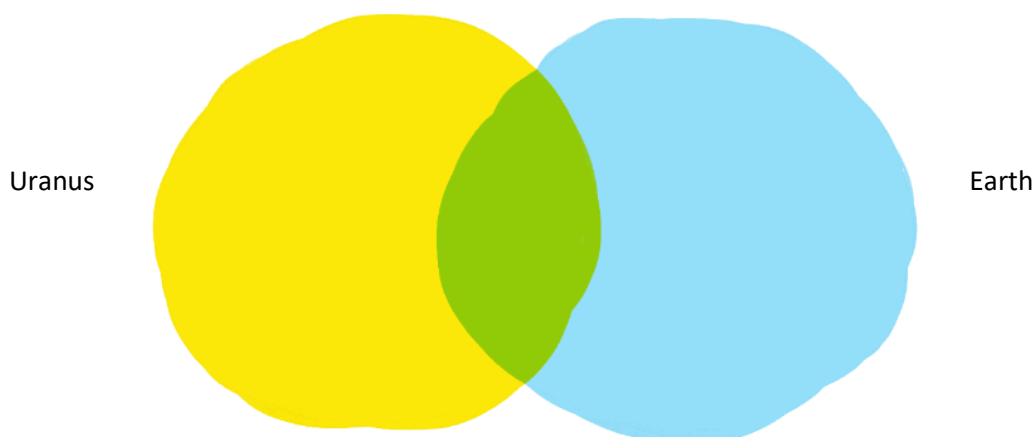


Activity: Profile of Uranus

Create a profile of Uranus using a range of sources of information. The following questions will help guide students' research:

- Who discovered Uranus and when was it discovered?
- How was it named? How long did it take to be named?
- Where is Uranus in the Solar System?
- Uranus is an ice giant planet. What does that mean?
- Describe Uranus' atmosphere.
- How long is a day on Uranus?
- How long is a year on Uranus?
- Why does Uranus rotate on its side?
- Why does Uranus have extreme weather?
- List 10 interesting facts about Uranus.

Use a Venn diagram to compare and contrast Uranus with Earth. Compare and contrast the size of the planets, the distance from the sun and its physical features.



Activity: Create a Kahoot Quiz

Use [Kahoot!](#) to test students' knowledge about Uranus. Quizzes can be created to recap learning or test personal knowledge. There is also the option to connect with classrooms around the world and play kahoot in real time.



BTN Space Science stories

Visit BTN's collection of stories which focus on space science and space exploration. After watching any one of the BTN videos ask students to respond to the discussion questions (to find the discussion questions and teacher resources go to the related BTN Classroom Episode and download the Episode Package).

[Link to collection of BTN Space Science stories](#)

A screenshot of the 'Behind The News' website. The page features a navigation bar with links for Home, Classroom, Stories, AAR, Rookie Reporter, Teachers, Subjects, and About. Below the navigation bar, there is a section titled 'Space Science' which displays a grid of eight video thumbnails. Each thumbnail includes a play button icon, a title, a brief description, and a timestamp. The stories shown are: 'Astronaut Training' (NASA looking for people to train to become astronauts), 'Mars Insight' (Mars mysteries), 'Pluto Anniversary' (dwarf planet Pluto), 'NASA Fossils' (collecting rock samples from Australia), 'Science Lessons' (big science lessons since 1969), 'Space Race' (US vs USSR), 'Apollo 11' (journey of Michael Collins, Neil Armstrong, and Buzz Aldrin), and 'Moon Landing Memories' (kids interview grandparents).

Useful Websites

- [Uranus](#) – NASA Science
- [Uranus is a very weird planet. Here's why astronomers want to send a probe to it](#) – ABC News
- [By the Numbers: Uranus vs Earth](#) – NASA Science
- [All about Uranus](#) – NASA Space Place