

Teacher Resource

Pluto Anniversary

Focus Questions

1. Briefly summarise the BTN *Pluto Anniversary* story.
2. How many planets are there in our solar system?
3. What ancient civilisation first observed planets in our solar system?
4. Who first suggested that planets in our solar system revolve around the Sun?
5. What is the name of planet 8?
6. What year was Pluto discovered?
7. Who named Pluto?
8. Why is Pluto called a dwarf planet?
9. Pluto is larger than the Moon. True or false?
10. What questions do you have about Pluto?

Key Learning

Students will learn more about the dwarf planet Pluto and other planets in the solar system.

Curriculum

Science – Year 5

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

Science – Year 5 & 6

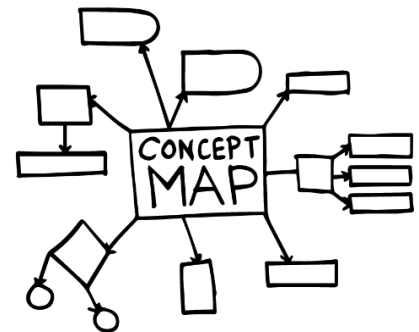
Science involves testing predictions by gathering data and using evidence to develop explanations of events and phenomena and reflects historical and cultural contributions.

Activity

Class discussion – Pluto

Hold a class discussion about the information raised in the *Pluto Anniversary* story. Ask students to **name the planets in our solar system**. Students will then create a class mind map about Pluto asking students to record what they know. Use the following questions to guide discussion:

- Who discovered Pluto?
- How was it named?
- Where is Pluto in the solar system?
- How big is Pluto?
- When and why did Pluto become a dwarf planet?
- How many moons does Pluto have?
- How long does it take for Pluto to orbit the Sun?
- What is the Kuiper Belt?



Glossary

Students will develop a glossary of words and terms that relate to Pluto and the solar system. Below are some words to get them started.

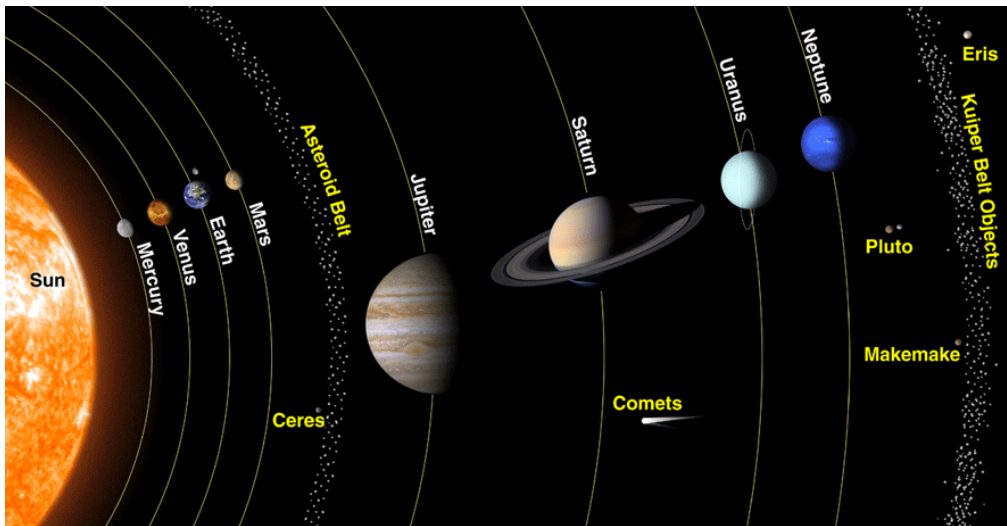
Solar system	Dwarf planet	Kuiper Belt
Charon	Orbit	Planet

Activity

Planet Research

Students begin by recording what they know about the solar system. Working in pairs, students will research one of the planets in the solar system. Use the following to help guide students' research.

- Choose a planet in our solar system (or the dwarf planet, Pluto)
- Conduct in depth research into one of the planets. The [NASA website](#) has useful information.
- Include a description of what the planet looks like.
- Find out some interesting facts about the planet.
- Geographical features – Is it gaseous or rocky? Does it have an atmosphere? What are conditions on the surface like?
- Distances – how far is this planet from the Sun?
- Movement – identify the path of this planet. How fast does it travel around the Sun?
- Present research using [Prezi](#), [Canva](#) or [Glogster](#)



Activity

Make model of our solar system

Make a scale model of the planets in our solar system. In small groups, students will represent the size of the Sun and the planets in our solar system as accurately as possible. Students need to agree on an approximate scale for their model. The model should begin with the Sun and show planets in order. Use [this calculator](#) to help determine size and scale.

- What scale will you use to model the solar system?
- What materials or found objects will you use to represent the Sun and each of the planets?
- What surprised you about you about this activity?

Following this activity, students will agree on a scale to represent the distance of the planets from the Sun. Calculate and record the distances using a spreadsheet. Consider modelling your findings on your school oval. In this [BtN story](#) we demonstrate the scale of our solar system, using a bowling ball, a pin, a peppercorn, a pecan, a hazelnut and a peanut, on a racecourse! Watch this [ABC Education video](#) to help you visualise the size and scale of our solar system.

Activity

Students watch the [BTN Visiting Pluto](#) story about the New Horizons mission to explore Pluto, then answer the following questions:

1. What is the name of the spacecraft that took photos of Pluto?
2. Pluto was first discovered in...
3. What do scientists know about Pluto?
4. Why is it called a dwarf planet?
5. When was the spacecraft launched?
6. New Horizons is about the size of a _____.
7. What interesting things are on board the spacecraft?
8. Describe the images of Pluto.
9. New Horizons is the fastest spacecraft NASA has ever built. True or false?



Watch [this video](#) to learn more about Pluto's atmosphere.



Watch [this video](#) to learn more about the amazing features of Pluto.



Activity

Create a Kahoot Quiz

Use [Kahoot!](#) to test students' knowledge about Pluto. 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.



Activity

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

<https://www.abc.net.au/btn/space-science/10614248>

Useful Websites

Visiting Pluto – BTN

<https://www.abc.net.au/btn/classroom/visiting-pluto/10526194>

The Amazing Features of Pluto – ABC Education

<https://education.abc.net.au/home#!/media/2395334/the-amazing-features-of-pluto>

Pluto Dwarf Planet – NASA Science Solar System Exploration

<https://solarsystem.nasa.gov/planets/dwarf-planets/pluto/overview/>

Pluto - NASA

<https://solarsystem.nasa.gov/planets/dwarf-planets/pluto/in-depth/>