

International Astronomy Day (April 25, 2026)

TEACHING GUIDE

i What? International Astronomy Day, an annual celebration where everyone is invited to discover the universe and the wonders of the sky.

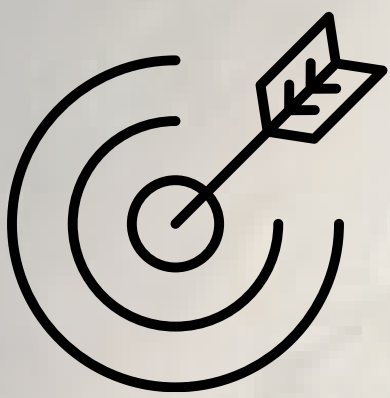
👤 Who? Professional astronomers, astronomy clubs, and curious minds of all ages, all over the world.

🌍 Where? All over the world: observatories, parks, schoolyards, and even your backyard.

📅 When? This day is celebrated on April 25, 2026.

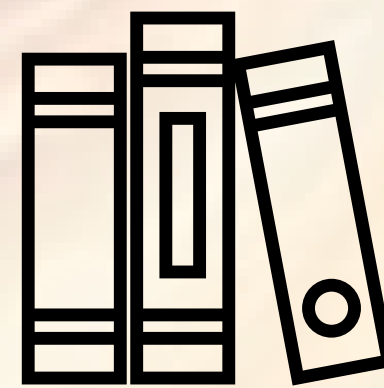
? Why is it important? Because it's an opportunity to look up at the sky and marvel at the vastness of the universe.

🎯 For this activity, your goal will be to learn more about the solar system and Jupiter.



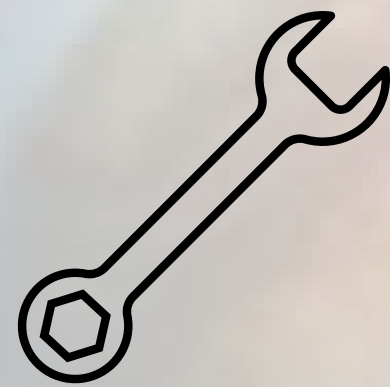
OBJECTIVES

- Discover the solar system and its eight planets
- Get to know Jupiter, the largest planet in our solar system
- Understand what the Great Red Spot is
- Search for and organize reliable scientific information
- Apply simple mathematical operations to real-world data



SUBJECTS

- **Science**
 - Astronomy
 - Solar System
 - Atmospheric Phenomena
- **Mathematics**
 - Comparing Quantities
 - Division and Multiplication
 - Data Interpretation
- **English**
 - Information Research and Reading
 - Understanding Instructions
 - Written Expression



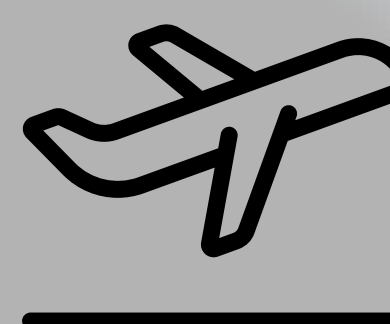
COMPETENCIES

- Researching and interpreting information
- Making connections between different pieces of information
- Solving mathematical problems
- Organizing ideas
- Producing a structured response



DURATION

- Approximately 60 minutes



GETTING STARTED

- Ask the students if they have ever observed the starry sky.
- Ask them which planets they know.
- Discuss the size of the planets (which one do they think is the biggest?).
- Show an image of Jupiter with its Great Red Spot.
- Ask them: what do they think this spot could be?

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QUESTIONS AND ANSWERS

STEP 1 — A Tour of the Solar System. Discovery of the planets of the solar system using a National Geographic video. Answers to four "Who am I?" riddles.

Q1 — Mercury.

Q2 — Venus.

Q3 — Jupiter.

Q4 — Uranus.

STEP 3 — The Great Red Spot. Viewing of a National Geographic video, followed by comprehension and calculation questions about the size of Jupiter and its Great Red Spot.

Q5 — It's essentially a huge hurricane.

Q6 — 640 km/h.

Q7 — Approximately 1.3 times ($16,350 \div 12,756$).

Q8 — Approximately 11.2 times ($((71,488 \times 2) \div 12,756)$).

Warning! The radius of Jupiter is given. For the diameter, you must multiply by 2.

STEP 2 — A gas giant. Watching of a NASA video, then research of information on the Canadian Space Agency website to complete Jupiter's fact sheet.

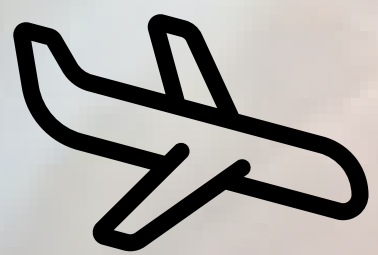
Diameter — 139,822 km

Year length — 11.8 years

Average distance from the Sun — 778.6 million kilometers

Warning! Average the two numbers shown! Average temperature — Approximately -134°C

Number of moons — 95




WRAPPING UP

- Conduct a group discussion about what the students have learned.
- Discuss what surprised them most (size of Jupiter, Great Red Spot, wind speed).
- Ask why scientists continue to study Jupiter today.
- Compare Jupiter and Earth: what makes each planet unique?



FURTHER EXPLORATION

 Steve Foxe. *Jupiter*. Capstone Editions

Sun — 1,391,000 km — 122 cm — Kin-Ball

Mercury — 4,879 km — 0.4 cm — Pinhead

Venus — 12,104 km — 1.1 cm — Chickpea

Earth — 12,756 km — 1.1 cm — Chickpea

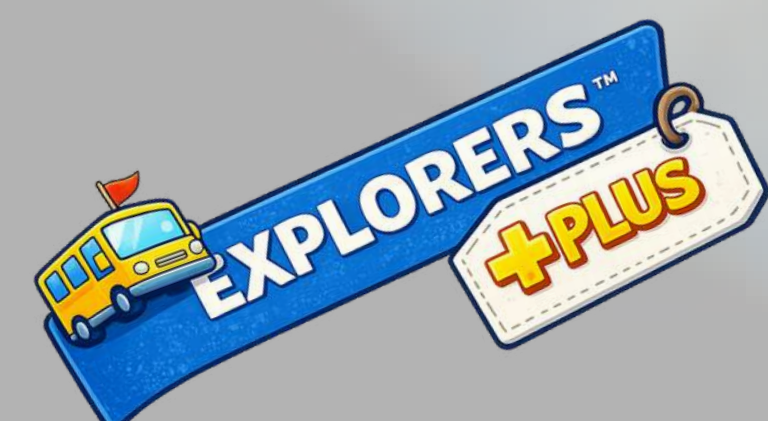
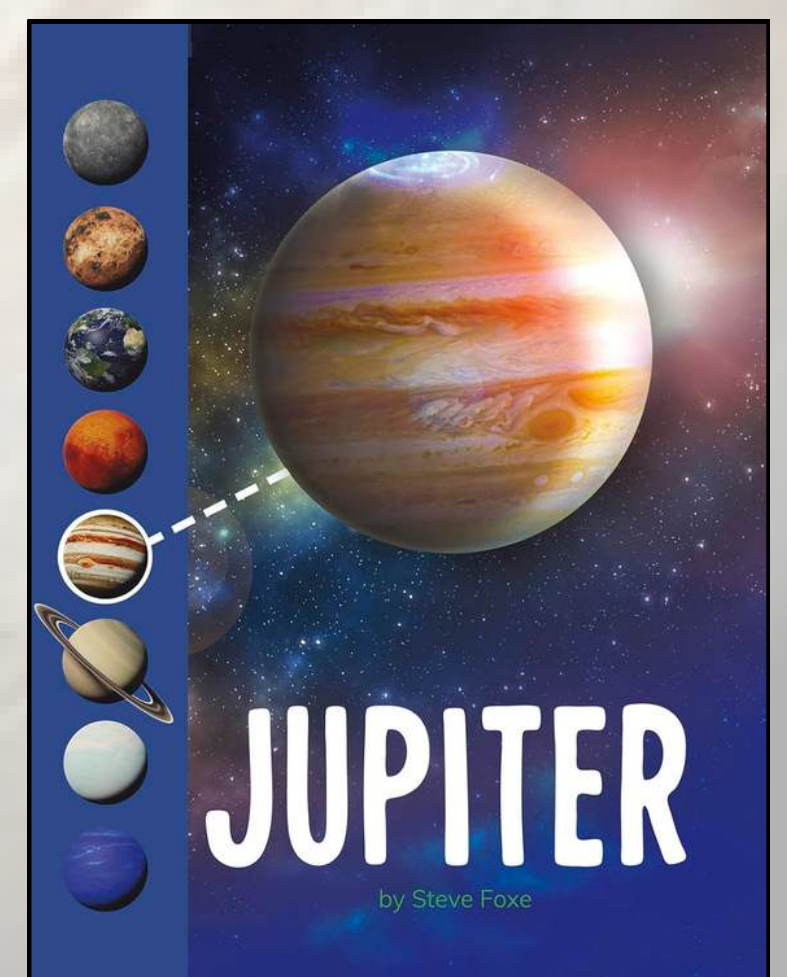
Mars — 6,779 km — 0.6 cm — Green Pea

Jupiter — 142,984 km — 12.5 cm — Grapefruit

Saturn — 120,536 km — 10.6 cm — Big Apple

Uranus — 51,118 km — 4.5 cm — Ping-Pong Ball

Neptune — 49,528 km — 4.3 cm — Ping-Pong Ball





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Are you familiar with kin-Ball? It's a sport invented in Quebec in 1986, which is played with a huge ball 1.22 meters in diameter.

Now imagine that this kin-Ball is our Sun. At this scale, what would the eight planets of the solar system look like?

Your mission: complete the table below by matching each planet to an everyday object of the correct size.



To find the scale size, divide the planet's actual diameter by the Sun's diameter, then multiply by 122.

Example: Jupiter → $(142,984 \div 1,391,000) \times 122 \approx 12.5 \text{ cm}$ (the size of a grapefruit)

CELESTIAL BODY	ACTUAL DIAMETER IN KM	SIZE TO SCALE IN CM	OBJECT
Sun	1,391,000	122 cm	kin-Ball
Mercury	4,879		
Venus	12,104		
Earth	12,756		
Mars	6,779		
Jupiter	142,984	Approx. 12.5 cm	Grapefruit
Saturn	120,536		
Uranus	51,118		
Neptune	49,528		

A ping-pong ball



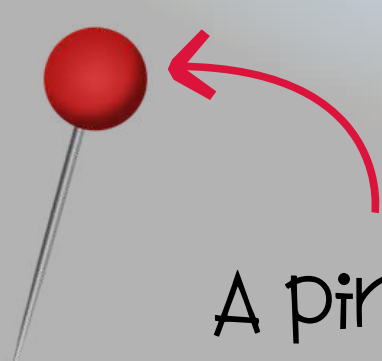
A chickpea



A big apple



A grapefruit



A pinhead

A green pea

