

Let's Meet Jupiter!

A fun 45-minute adventure with the king of the planets — Jupiter, the giant, striped, storm-filled gas world.

Lesson at a Glance

LESSON	Let's Meet Jupiter!
AGE GROUP	Ages 5–12 (with tips for adapting younger and older)
TIME	45 minutes
SUBJECT	Science / Astronomy
MATERIALS	Jupiter PowerPoint, projector or whiteboard, paper, crayons or coloured pencils, optional: 11 small balls + 1 big ball for the size demo

What Will Students Learn?

By the end of this lesson, your class will be able to:

- Name Jupiter as the fifth planet from the Sun and the BIGGEST planet in our solar system.
- Describe Jupiter as a gas giant — no surface, just swirling clouds.
- Identify the Great Red Spot as a giant storm bigger than Earth.
- Recognise that Jupiter has at least 79 moons, including the four “Galilean moons.”

Warm-Up: Spark Curiosity (5 min)

Get the class excited by asking: “How big do you think the BIGGEST planet is compared to Earth?” Let a few hands shoot up. Then drop the hook:

Try this!

Get 11 small balls (or pebbles, or 11 marbles) and one BIG ball (or just hold up a basketball). Line up the small balls in a row. Tell the class: “11 Earths could line up across Jupiter — that’s how huge Jupiter is!”

Then say: “Today we’re visiting the GIANT — the king of all the planets!”

Main Lesson: The Jupiter PowerPoint (15 min)

Open the Jupiter_For_Kids.pptx slide deck and walk through it together. Don’t just read the slides — pause, ask questions, let kids react.

Slides to slow down on:

- Slide 3 (Jupiter at a Glance) — 79 moons! Pause and let kids react.
- Slide 4 (How BIG is Jupiter?!) — Use the warm-up demo here. 11x wider than Earth, 317x more mass!
- Slide 5 (The Great Red Spot) — A storm that's lasted over 300 YEARS and is bigger than Earth! Ask: "How long do storms on Earth usually last?"
- Slide 7 (Jupiter's Mini Solar System) — Four amazing moons. Spotlight Europa: "Scientists think there's an OCEAN under its ice. Could fish live there?"
- Slide 12 (Quiz Time!) — Save this for the wrap-up at the end of the lesson.

Teacher tip

Don't feel you need to read every word on every slide. Pick the bits that get the loudest reactions and let the class drive the energy.

Activity: Stormy Jupiter Art (20 min)

Kids create their own swirly Jupiter painting (or coloured-pencil version) capturing the planet's famous bands and Great Red Spot.

On a paper plate or large round paper, draw:

- Horizontal stripes (bands) in caramel, cream, brown, and tan.
- The Great Red Spot — a big oval in red, lower-left of the planet.
- Smaller white storm spots (sometimes nicknamed 'pearls').

Around the planet, write:

- "My planet is ___ Earths wide."
- "My biggest storm has lasted ___ years."
- "I have ___ moons." (Encourage them to invent a number bigger than 79!)

Adapt for younger kids (ages 5-7)

Use finger painting! Let kids smear caramel and white paint horizontally to make stripes, then a red blob for the storm. It's messy but glorious.

Challenge older kids (ages 10-12)

Research one of Jupiter's four big moons (Io, Europa, Ganymede, Callisto) and write 3 fascinating facts about it. Then add their moon to their Jupiter drawing.

Wrap-Up: Quiz Time! (5 min)

Bring everyone back together and run through the quiz slide from the PowerPoint as a group. Encourage shouting out answers — make it celebratory! End by asking:

- “What’s the coolest thing you learned about Jupiter today?”
- “If you could send one message to Jupiter, what would you say?”

Quick Lesson Flow

TIME	SEGMENT	WHAT HAPPENS
5 min	Warm-up	Spark curiosity with a fun question and a quick demo.
15 min	Main lesson	Walk through the Jupiter PowerPoint, slide by slide.
20 min	Activity	Hands-on: stormy Jupiter Art.
5 min	Wrap-up & quiz	Run through the quiz slide together and celebrate what they learned!

Discussion Questions (use any time)

- Jupiter has no surface to stand on. What would it be like if you tried?
- The Great Red Spot has been there for 300+ years. Why do you think it lasts so long?
- Jupiter’s gravity protects Earth from space rocks. Why is that good for us?
- If Jupiter is “almost a star,” why didn’t it become one?

Extension Ideas

- Coloring page (great for early finishers or homework — see the Jupiter resource page).
- Math link: A day on Jupiter is about 10 hours. How many Jupiter days are in one Earth day?
- Writing prompt: You’re an alien fish living in Europa’s hidden ocean. Write a journal entry.
- Class display: Hang all the Jupiter art together to make a giant gallery of gas giants.

What You’ll Need

- Jupiter_For_Kids.pptx (download from the Jupiter resource page)
- Projector or whiteboard to display the slides
- Paper for the activity (one per student)
- Crayons, coloured pencils, or markers

- Optional demo props (see Warm-Up section)