

Let's Meet Mars!

A fun 45-minute mission to the Red Planet — Mars, the dusty, rusty world that might one day be a second home for humans.

Lesson at a Glance

LESSON	Let's Meet Mars!
AGE GROUP	Ages 5-12 (with tips for adapting younger and older)
TIME	45 minutes
SUBJECT	Science / Astronomy
MATERIALS	Mars PowerPoint, projector or whiteboard, paper, crayons or coloured pencils, optional: rusty metal object or red sand for demo

What Will Students Learn?

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

- Name Mars as the fourth planet from the Sun and the second-smallest planet.
- Explain why Mars is red — it's literally rusty!
- Describe Mars's biggest features — Olympus Mons (huge volcano) and Valles Marineris (giant canyon).
- Discuss why Mars is the planet humans might visit one day.

Warm-Up: Spark Curiosity (5 min)

Get the class excited by asking: "If you could send a robot to explore another planet, where would you send it?" Let a few hands shoot up. Then drop the hook:

Try this!

Hold up something rusty (an old key, a nail) or pour out some red sand. Tell the class: "See this rusty colour? That's the same colour as a WHOLE PLANET. Today we're going to visit it!"

Then say: "Welcome to Mars — the rusty red planet that humans have been exploring for years!"

Main Lesson: The Mars PowerPoint (15 min)

Open the Mars_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 (Mars at a Glance) — Ask: “Two moons! What do you think they’re called?”
Reveal: Phobos and Deimos — and they’re shaped like potatoes!
- Slide 4 (Why is Mars Red?) — The big reveal: Mars is RUSTY. Iron in the dirt + a tiny bit of oxygen long ago = rust!
- Slide 5 (Record-Breaking Landscape) — Olympus Mons is 3x taller than Mt. Everest! Valles Marineris stretches across an entire continent! Pause for amazement.
- Slide 9 (Robot Explorers on Mars) — Show the timeline of rovers. Ask: “Did you know there are robots driving around Mars RIGHT NOW?”
- 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: Design Your Own Mars Rover (20 min)

Kids become NASA engineers! Their mission: design a rover to send to Mars.

On a piece of paper, design a rover with:

- Wheels for driving on Mars’s rocky surface (how many?).
- A camera or two to take photos.
- Tools for collecting samples (a scoop? a drill?).
- Solar panels to power it from the Sun.
- Anything fun they want to add — antennas, lights, a robotic arm, even a little flag!

Around the drawing, label:

- The rover’s NAME (kids love this — Curiosity, Perseverance, Sparky?).
- What it’s looking for (signs of ancient water? rocks? alien microbes?).
- One special feature only THEIR rover has.

Adapt for younger kids (ages 5-7)

Provide a simple rover outline to colour and decorate, with stickers if you have them. Just label it with the rover’s name.

Challenge older kids (ages 10-12)

Have them research a real Mars rover (Sojourner, Curiosity, Perseverance) and write 3 facts about it. Bonus: explain how their rover is BETTER than the real ones.

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 Mars today?”
- “If you could send one message to Mars, 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 Mars PowerPoint, slide by slide.
20 min	Activity	Hands-on: design Your Own Mars Rover.
5 min	Wrap-up & quiz	Run through the quiz slide together and celebrate what they learned!

Discussion Questions (use any time)

- Why do you think humans want to send rovers to Mars instead of going there ourselves first?
- If you were the first person to land on Mars, what’s the first thing you’d do?
- Mars used to have water. What do you think happened to it?
- Should humans try to live on Mars? What would we need to take with us?

Extension Ideas

- Coloring page (great for early finishers or homework — see the Mars resource page).
- Math link: A day on Mars is about 24.6 hours. How much longer is a Mars day compared to an Earth day?
- Writing prompt: Write a diary entry as a Mars rover. “Day 1 on Mars: today I saw...”
- Class display: Build a 'Mars Rover Hall of Fame' wall with everyone’s designs.

What You’ll Need

- Mars_For_Kids.pptx (download from the Mars 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)

