

Our Place in Space

Launchpad Station with Spaceling

Learning target

Place Earth within a simple solar-system model.



Before you begin

Use the reference page and discussion prompts on their own, or open the optional browser adventure. No earlier lesson or physical kit is required.

For online play: use an internet-connected current browser with local storage enabled. Read the three-part Gemling briefing, answer the quick check, and apply the evidence at three checkpoints. Retry feedback supports review; results are not a secure test or gradebook.

Use for teacher-led review, science centers or partner practice. Independent readers may need support with the vocabulary below. The design target is grades 3-5; choose support based on the learner.

Vocabulary and concepts to discuss

Earth; Sun; solar system; orbits; relative scale

Open Launchpad Station - direct lesson link

Scan the QR code or use the clickable link. This guide is usable offline; the adventure runs on an external educational website.



Our Place in Space - key ideas

1. The first clues

Earth belongs to the solar system, which includes the Sun and objects bound to it by gravity. Planets orbit the Sun.

2. How the clues connect

The solar system lies within the Milky Way galaxy. A galaxy contains many stars; the Sun is just one of them.

3. Our evidence record

Our nested labels go Earth, solar system, Milky Way. A small diagram simplifies immense distances, so nearby-looking marks do not mean the objects are actually close.

Keep the science accurate

Use relative scale and selected comparisons, not memorized distances, all moons or advanced stellar evolution.

Apply the evidence

Use a specific observation from this lesson to explain one choice. Point to a clue, then connect that clue to a scientific idea.

Curriculum reference: <https://www.nextgenscience.org/dci-arrangement/5-ess1-earths-place-universe>

Talk through the evidence

1. Which star does Earth orbit?

Expected answer: The Sun

Reasoning: The solar system lies within the Milky Way galaxy. A galaxy contains many stars; the Sun is just one of them.

2. Which is larger in this nested model?

Expected answer: The Milky Way

Reasoning: Our nested labels go Earth, solar system, Milky Way. A small diagram simplifies immense distances, so nearby-looking marks do not mean the objects are actually close.

3. Which order goes from smaller to larger?

Expected answer: Earth, solar system, galaxy

Reasoning: Earth belongs to the solar system, which includes the Sun and objects bound to it by gravity. Planets orbit the Sun.

4. What does a scale warning tell us?

Expected answer: Diagram spacing may be simplified

Reasoning: Our nested labels go Earth, solar system, Milky Way. A small diagram simplifies immense distances, so nearby-looking marks do not mean the objects are actually close.

Guide the discussion

Ask learners to name the evidence that supports their answer. If an answer differs, revisit the matching key idea on page 2 and invite a revised explanation.

Online rewards: this lesson grants one fixed digital Expedition Discovery. Five saved digital Gemling friends become available only after all six distinct subject lessons are complete, in any order. Digital rewards do not establish physical ownership.