

Light Sources & Seeing

Palace Entry Court with Glowling

Learning target

Explain that seeing an object requires light reaching the eyes.



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

Objects that emit light; reflected light; eyes; paths

Open Palace Entry Court - 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.



Light Sources & Seeing - key ideas

1. The first clues

A light source emits light. Many objects are seen because light from a source reflects from them and reaches our eyes.

2. How the clues connect

A mirror or the Moon can reflect light without being a source like a lamp or the Sun. Seeing requires a light path, not eyes sending out viewing rays.

3. Our evidence record

Our model traces lamp to object to eye. The object becomes hard to see when that path is blocked. Use the diagram; never look at the Sun or a laser.

Keep the science accurate

No wavelength calculations, Snell's law or looking at the Sun/lasers. Refraction and dispersion remain clear qualitative extensions.

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/4-ps4-waves-and-their-applications-technologies-information-transfer>

Talk through the evidence

1. Which is a light source in our model?

Expected answer: The lamp

Reasoning: A light source emits light. Many objects are seen because light from a source reflects from them and reaches our eyes.

2. What path lets us see the object?

Expected answer: Lamp to object to eye

Reasoning: Our model traces lamp to object to eye. The object becomes hard to see when that path is blocked. Use the diagram; never look at the Sun or a laser.

3. Does a reflector have to make its own light?

Expected answer: No

Reasoning: A light source emits light. Many objects are seen because light from a source reflects from them and reaches our eyes.

4. What happens when the modeled light path is blocked?

Expected answer: Less light from the object reaches the eye

Reasoning: A light source emits light. Many objects are seen because light from a source reflects from them and reaches our eyes.

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.