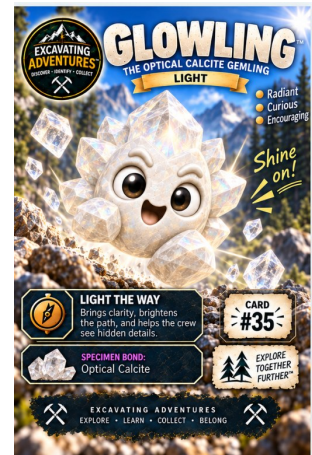


White Light & Color

Rainbow Falls with Glowling

Learning target

Explain a simple color observation using a labeled 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

White light containing colors; prisms and rainbows; reflecting and absorbing light

Open Rainbow Falls - 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.



White Light & Color - key ideas

1. The first clues

White light can contain many colors. A prism can separate them because different colors change direction by different amounts in the material.

2. How the clues connect

Objects reflect some light and absorb some. Their appearance depends on the light reaching them as well as their properties.

3. Our evidence record

Our text-labeled prism model shows white light entering and several named color bands leaving. Use the labels and paths; no answer requires distinguishing colors by sight.

Keep the science accurate

Keep color and prism models qualitative. Do not rely on color alone in an assessed item.

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. What enters the prism in our model?

Expected answer: White light

Reasoning: White light can contain many colors. A prism can separate them because different colors change direction by different amounts in the material.

2. What does the prism help show?

Expected answer: White light contains multiple colors

Reasoning: Our text-labeled prism model shows white light entering and several named color bands leaving. Use the labels and paths; no answer requires distinguishing colors by sight.

3. Why can object appearance change under different lighting?

Expected answer: Different light reaches and reflects from it

Reasoning: Objects reflect some light and absorb some. Their appearance depends on the light reaching them as well as their properties.

4. How can this task be completed without seeing colors?

Expected answer: Use the text labels and paths

Reasoning: Our text-labeled prism model shows white light entering and several named color bands leaving. Use the labels and paths; no answer requires distinguishing colors by sight.

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.