

Rocks that GLOW: Exploring Fluorescent Minerals

Target Grade Range: 2-4

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Did you know that rocks can GLOW? While some rocks and minerals can look plain and dull, under different wavelengths of ultraviolet light, they fluoresce hot pink, orange, purple, red, and more! Why do some rocks fluoresce while others don't? Explore the world of brightly colored fluorescent minerals with paleontologist and educator, Ashley Hall.

Student Objectives

Students will be able to:

1. Explain fluorescence and the mechanism by which objects fluoresce.
2. Give examples of objects besides rocks (animals, plants, objects) that fluoresce.
3. Understand that different wavelengths of light affect how we see and perceive objects.

Standards Alignment

Montana Science Standards

Grade	Subject Area	Content Standard <i>Each student will:</i>
4 th	Physical Science	Make observations to provide evidence of transfer of energy from place to place by sound, light, heat, electric currents.
5 th	Physical Science	Observe and record qualitative and quantitative evidence to support identification of materials based on their properties.
6 th -8 th	Physical Science	Develop and use a model to describe that waves are reflected, absorbed, or transmitted through various materials.

Next Generation Science Standards

Discipline and Core Idea	<i>Students who demonstrate understanding can:</i>
4-PS3-4	Apply scientific ideas to design, test, and refine a device that converts energy from one form to another.
5-PS1-3	Observe and record qualitative and quantitative evidence to support identification of materials based on their properties.
MS-PS4-2	Develop and use a model to describe that waves are reflected, absorbed, or transmitted through various materials.