

Science 11/14/19

Essential Question: How do objects change the color of light?

CW: Lesson 11.1

HW: Reading 11.3 - Highlight main ideas and answer questions

Agenda

1. Question of the day

2. Light Video

3. Lesson 11.1

Open Ended Question

Write silently for three minutes: What have you learned about rainbows and prisms?



<https://www.youtube.com/embed/VwNKPgo3oxA>



<https://www.youtube.com/embed/KoUyMuMVJQY>





Collaborate!

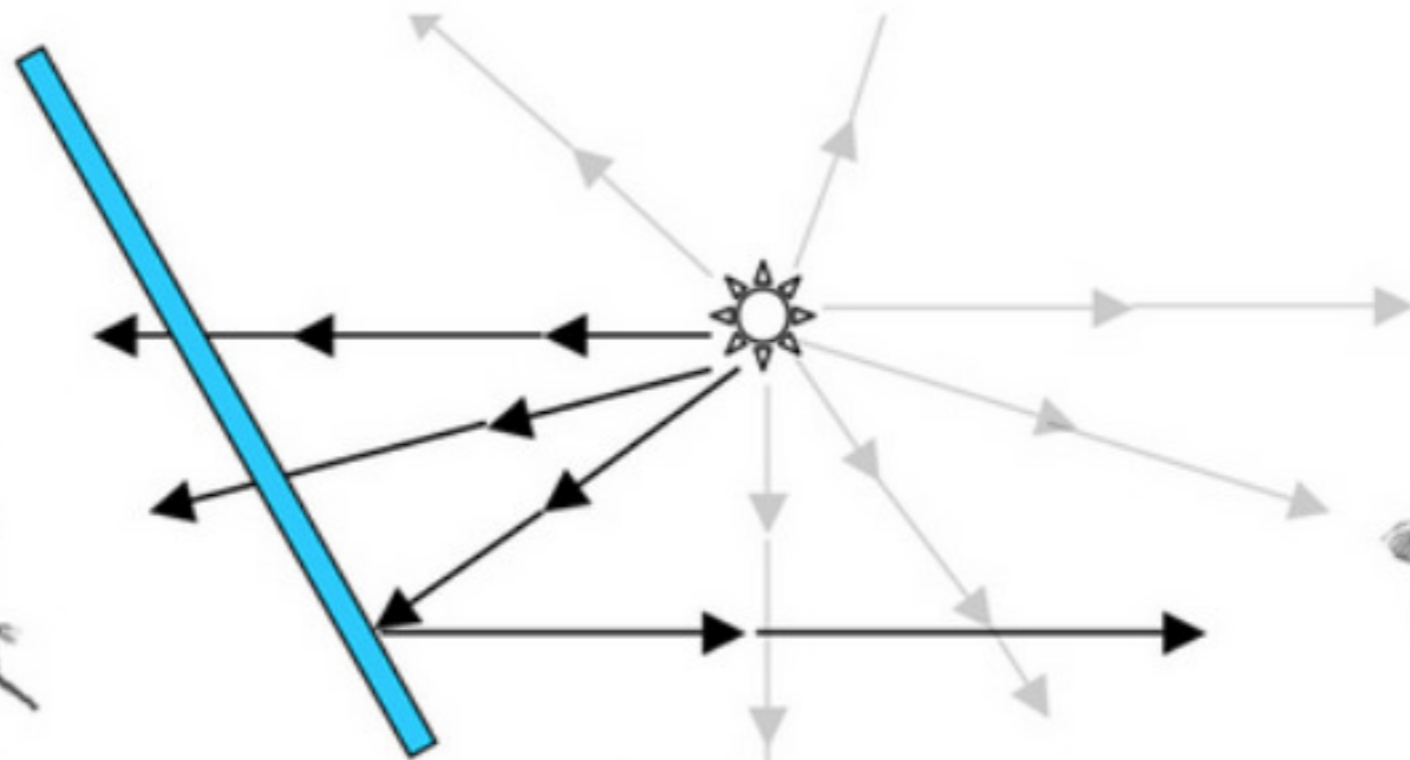
Why do you see the square on the screen as red?



Collaborate!

Why do we see this object as red?

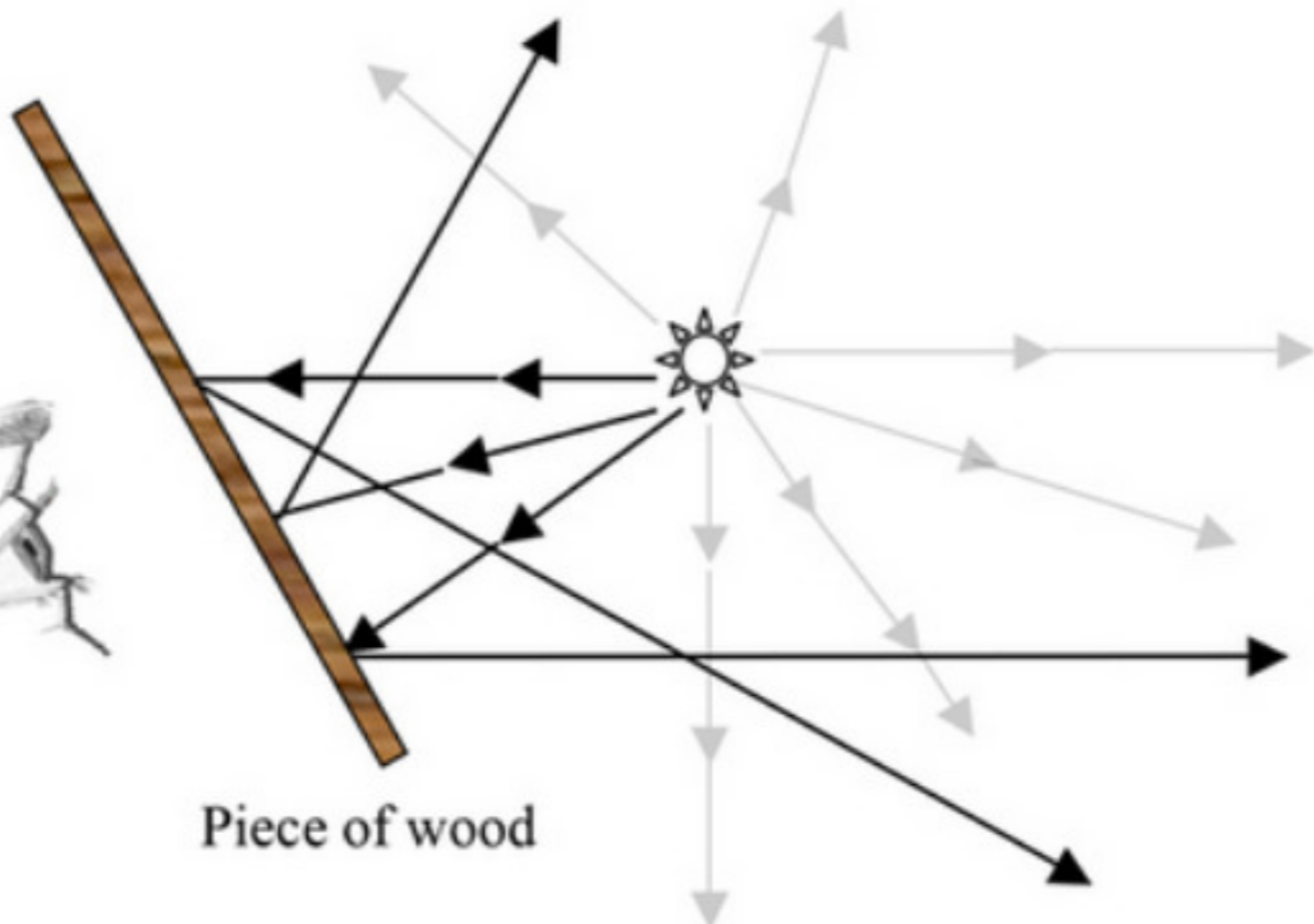
Person B



Piece of clear glass

Person A

Position B



Piece of wood

Position A

What situations have you seen light separated into different colors?



Collaborate!

What situations have you seen light separated into different

PI: White Rectangle



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Lesson 11 – How do objects change the color of light?

Lesson 11.1 – Analyzing color composition

What was the point of the last lesson?

What will we do?

We will learn how to analyze light to determine out of which other colors of light it is composed.

Procedure

- Your teacher will project a white line on the screen. Explain why the line appears to be white.

PI: White Rectangle



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- When your teacher covers the projector with a piece of C-Spectra, two colorful images are created. Each image contains all the colors of the rainbow. Make a list of the colors that you see.
- Explain how you think different colored objects that do not transmit light, like a ball or a table, color the light that they scatter or reflect. Draw a model if it helps you.

Colors of Light Data Table

Colors of Light

	Red	Orange	Yellow	Green	Blue	Violet
Red Line						
Orange Line						
Yellow Line						
Green Line						
Blue Line						
Violet Line						

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Answer remaining questions pg. 118

5. Explain why you think the different colored lines scatter different colors of light.

6. Why do you think the colored lines were printed on black paper rather than on white paper?

Making Sense

1. What color do you think you would have seen if the red stripe had been illuminated by red light?

Explain your ideas.

2. What color do you think you would have seen if the red stripe had been illuminated by green light?

Explain your ideas.

Open Ended Question



What colors of light are absorbed by (most) plant leaves?

Scientific Principle

Colored objects scatter only certain colors of light and absorb the rest.



Thinking about what you observed today and have learned so far, how do you think rainbows happen?

Collaborate!

Thinking about what you observed today and have learned so

Draw It

What role do you think light plays in rainbows? You can draw a picture to help explain your thinking.

Open Ended Question

Why do you think we see rainbows only occasionally?