



Coherence and Alignment Among Science Curriculum, Instruction, and Assessment (CASCIA) Project

Grade 8 Unit 4: Providing Solutions to Problems Using Simple Wave Properties

Task 1 Prompt 1 Scored and Annotated Anchor Set

May 2025

Grade 8 Unit 4: Providing Solutions to Problems Using Simple Wave Properties, Task 1 Prompt 1 Scored and Annotated Anchor Set was developed with funding from the U.S. Department of Education under the Competitive Grants for State Assessments Program CFDA 84.368A. The contents of this paper do not represent the policy of the U.S. Department of Education, and no assumption of endorsement by the Federal government should be made.

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CASCIA Grade 8 EOU Assessment 4 Task 1: Now You See It

Prompt 1 Score Point 2

Prompt 1 Rubric

Prompt	Score Point 0	Score Point 1	Score Point 2	Score Point 3	Score Point 4
Prompt 1	No aspect of the response is correct	Response includes one (1) of the two (2) aspects	Response includes the following aspects: - Highest reading at 30° - Explanation of how the law of reflection supports the answer	NA	NA

Score Point 2 (2/2 aspects met)

- Includes that the highest reading is at 30° .
- Explains how the law of reflection supports the answer (i.e., the incoming and reflected angles are the same).

Explain which position of the light sensor in **Figure 1** recorded the highest brightness, and how it relates to the law of reflection using your knowledge of light and energy.

The sensor at 30° got the highest brightness because when you shine a light at a mirror it reflects at the same angle. The light is at 30° so that means the sensor at 30° is the brightest.

CASCIA Grade 8 EOU Assessment 4 Task 1: Now You See It

Prompt 1 Score Point 1

Prompt 1 Rubric

Prompt	Score Point 0	Score Point 1	Score Point 2	Score Point 3	Score Point 4
Prompt 1	No aspect of the response is correct	Response includes one (1) of the two (2) aspects	Response includes the following aspects: - Highest reading at 30° - Explanation of how the law of reflection supports the answer	NA	NA

Score Point 1 (1/2 aspects met)

- Includes that the highest reading is at 30° .
- Does **NOT** explain how the law of reflection supports the answer (i.e., the answer does not reference reflection in their answer).

Explain which position of the light sensor in **Figure 1** recorded the highest brightness, and how it relates to the law of reflection using your knowledge of light and energy.

The 30° sensor is getting the most light because the light source is at 30° .

CASCIA Grade 8 EOU Assessment 4 Task 1: Now You See It

Prompt 1 Score Point 0

Prompt 1 Rubric

Prompt	Score Point 0	Score Point 1	Score Point 2	Score Point 3	Score Point 4
Prompt 1	No aspect of the response is correct	Response includes one (1) of the two (2) aspects	Response includes the following aspects: - Highest reading at 30° - Explanation of how the law of reflection supports the answer	NA	NA

Score Point 0 (0/2 aspects met)

- Does **NOT** include that the highest reading at 30° .
- Does **NOT** explain how the law of reflection supports the answer.

Explain which position of the light sensor in **Figure 1** recorded the highest brightness, and how it relates to the law of reflection using your knowledge of light and energy.

I when it hit the ground and went at angle 15 would have the most light because it is the closest to the light source and it doesn't have to go that far.