3

DepED
DEPARTMENT OF EDUCATION

Activity Sheet for Science

Quarter 3
Week
5

Activity Sheet for Science Grade 3
Quarter 3: Week 5

The Department of Education would like to extend its sincere appreciation and gratitude to the United States Agency for International Development and RTI International through its ABC+ Project and UNICEF for supporting and providing technical assistance in the development of the MATATAG learning resources.

Published by the Department of Education
Secretary: Sonny M. Angara
Undersecretary: Gina O. Gonong

Development Team

Writer:	Reena R. Ongsotto
Content Reviewers:	Eliza C. Peralta and Cerlina M. Maramag
Language Reviewer:	Felisa P. Muñoz
Consultant:	Sheryl Lyn C. Monterola
Illustrator:	John Jerry A. Maramag
Layout Artist:	Patrick Lyndon Genar A. Rodriguez

Management Team
Bureau of Curriculum Development
Bureau of Learning Delivery
Bureau of Learning Resources

Department of Education – Bureau of Learning Resources (DepEd- BLR)

Office Address:	Ground Floor, Bonifacio Building, DepEd Complex Meralco Avenue, Pasig City Philippines 1600
Telefax:	(02) 8634-1054; 8634-1072; 8631-4985
Email Address:	blr.lrqad@deped.gov.ph; blr.lrpd@deped.gov.ph

ACTIVITY SHEET

Learning Area:	**Science**	**Quarter:**	**3**
Week:	**5**	**Day:**	**1**
Lesson Title/ Topic:	**What objects give off light in my school and home?**		
Name:		**Grade & Section:**	**3**

Activity 1: What objects give off light in my school and home?

Materials Needed:

- Pencil
- Activity paper

Duration: 20 minutes

Instructions:

Part A: Objects that give off light in my School

1. Look around your classroom. Can you see any objects that give off light?
2. Write the names of these objects in Table 1.
3. Now, go outside your classroom. What other objects can you find that give off light?
4. Write the names of these objects in Table 1.
5. Imagine that there is a blackout in your school. What objects can you use as sources of light in your classroom? Write the names of these objects in Table 1 if you have not yet added them.
6. Return to your classroom when you are done.

Table 1: Sources of Light in my School		
Inside the classroom	Outside the classroom	When there is a brownout
_____ _____ _____ _____ _____ _____ _____ _____ _____	_____ _____ _____ _____ _____ _____ _____ _____ _____	_____ _____ _____ _____ _____ _____ _____ _____ _____

Part B: Objects that give off light in my Home

1. Think of the different areas and rooms in your home. What objects in your home can give off light during the day and at night?
2. Write the names of these objects in Table 2.
3. Imagine that it is nighttime and there is a blackout. What objects can you use as light in your home? Write the names of these objects in Table 2 if you have not yet added them.

Table 2: Sources of Light in my Home	
Daytime	**Nighttime**
_____ _____ _____ _____ _____	_____ _____ _____ _____ _____

Part C: Classifying the Objects that give off Light

1. Study the list of objects that give off or can give off light in Tables 1 and 2.
2. Which objects can **naturally** give off light? Which objects **artificially** give off light?
3. Write the names of these objects under the correct heading in Table 3.

Table 3: Classifying the Objects that give off Light	
Natural Sources	**Artificial** Sources
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Guide Questions:

Q1. In Table 3, why did you classify the objects that give off light in the first column as natural sources?

_____

_____

_____

Q2. In Table 3, why did you classify the objects that give off light in the second column as artificial sources?

_____

_____

_____

_____

Q2. Can you name other examples of natural and artificial sources of light? Name two (2) for each type of source of light.

Natural Sources	Artificial Sources
1.	1.
2.	2.

Assessment:

The learners' performance of the activity and accomplishment of the activity sheet will be assessed using the grading rubric below.

Criteria	Excellent	Progressing	Needs Improvement	Weight
Understanding of Concepts	Shows a clear and accurate understanding of the science concepts involved. Can correctly give examples of each type of source of light, or can correctly classify sources of light.	Demonstrates some understanding of the science concepts involved. Can give examples of each type of source of light, or can classify sources of light, but are unable to give a logical reason or explanation for the classification.	Shows limited understanding of the science concepts involved. Does not use the data collected as evidence to support their explanation. Does not use reasoning to connect the data to their explanation.	35
Accuracy of collected data	All data collected is accurate and reflects the actual observations.	Most of the collected data is accurate with minor inconsistencies.	Data is frequently incorrect or doesn't match what likely occurred.	25

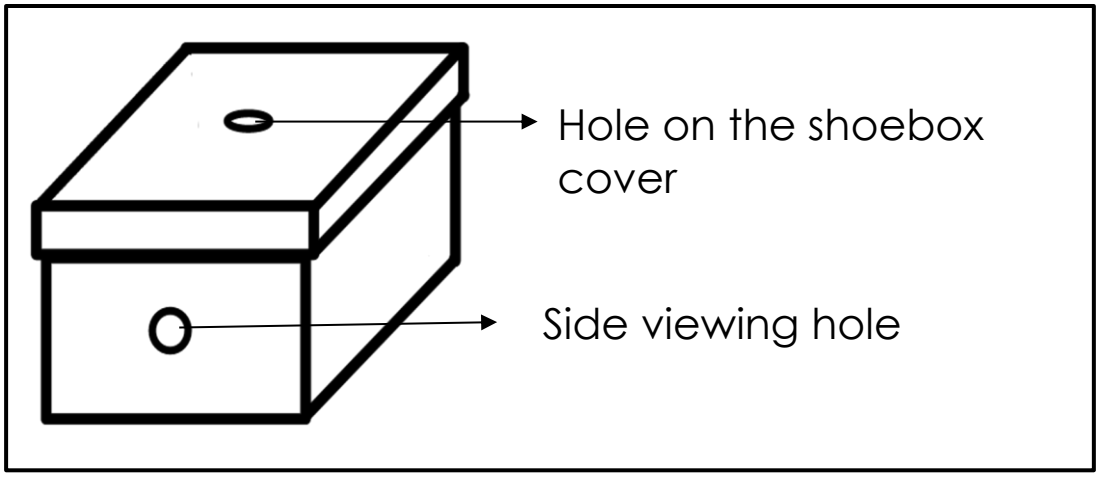
Collaboration	Worked well with the group, shared relevant ideas, listened to others respectfully, and helped the group.	Worked adequately with others, but could have shared more relevant ideas or helped more.	Did not work well with the group and had trouble sharing ideas, listening to others, or helping out.	20
Completion and Timeliness	Completed all tasks well before the time.	Completed all tasks mostly on time.	Required additional time to complete the task.	20

ACTIVITY SHEET

Learning Area:	**Science**	**Quarter:**	**3**
Week:	**5**	**Day:**	**2**
Lesson Title/ Topic:	**How does light help us see?**		
Name:		**Grade & Section:**	**3**

Activity 2: How does light help us see things?

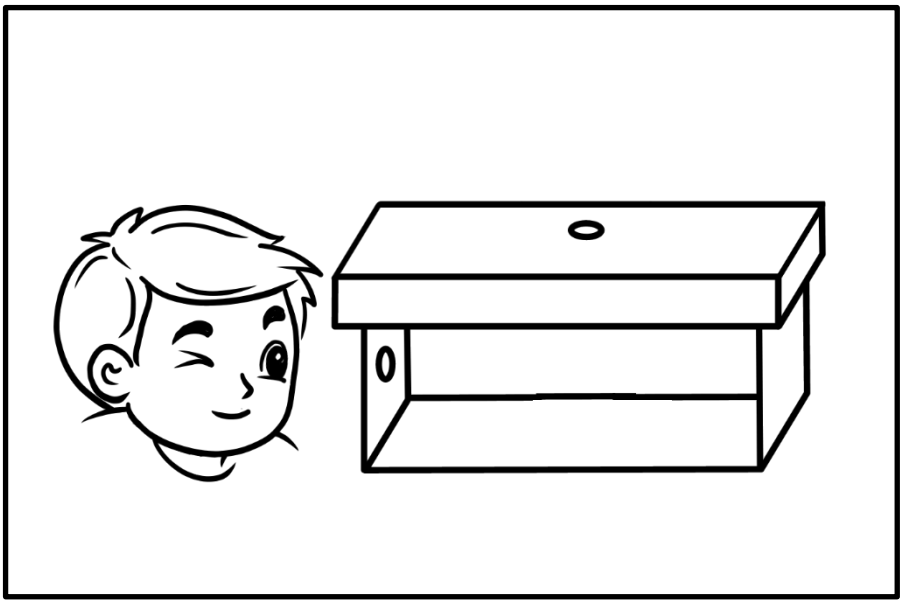
Materials Needed:
shoe box with cover with viewing holes on top and on one side (see figure), masking tape, small flashlight, clay, pencil, activity paper



Duration: 15 minutes

Procedure:
1. Remove the cover of the box and make sure that the box is empty.
2. Return the cover of the box.
3. Cover the hole at the top of the box with masking tape.

4. Look through the viewing hole at the side of the box, as shown below.



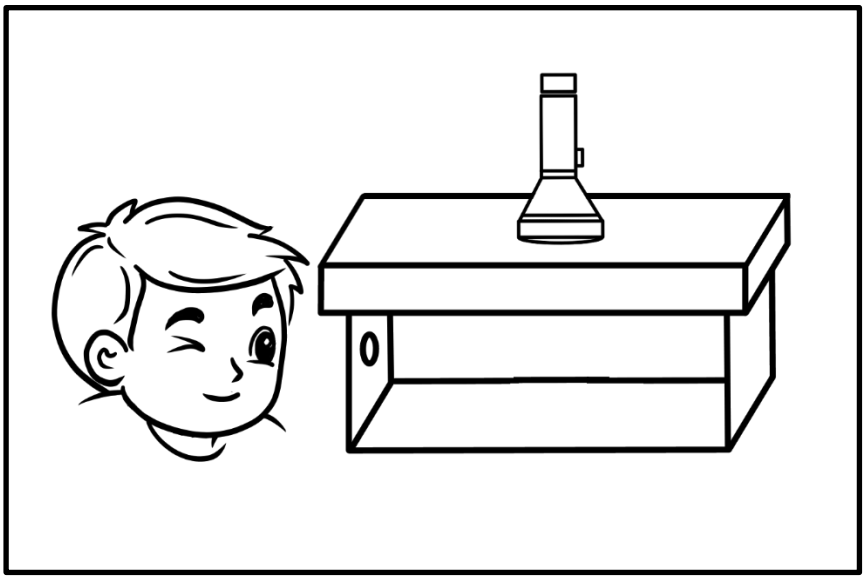
Guide Question:

Q1. What do you see?

_____

_____

5. Remove the masking tape from the top hole of the cover.
6. Place the flashlight over the hole and then switch it on.
7. Then, look through the viewing hole again as shown.



Guide Questions:

Q2. What do you see?

_____

_____

Q3. (Encircle your answer.)

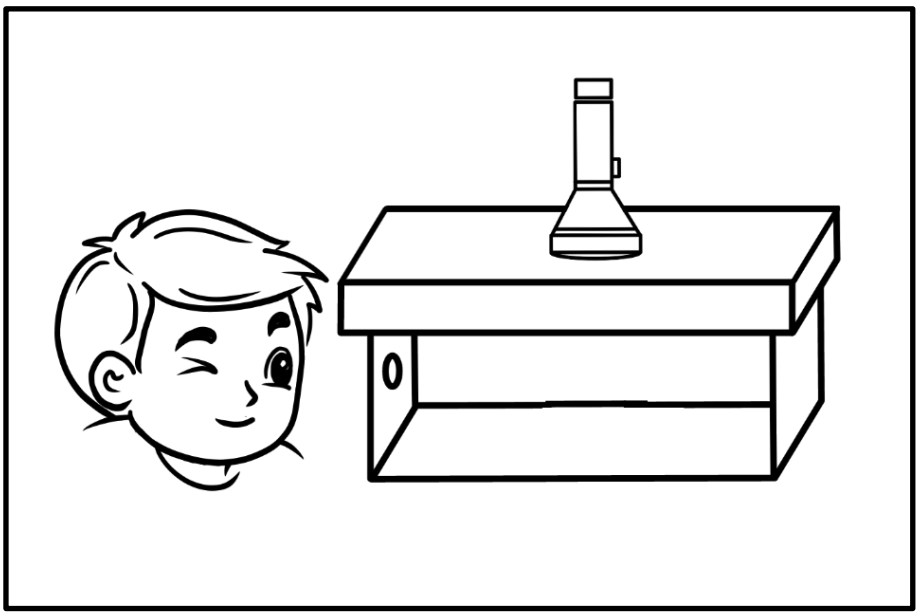
Can you see the bottom of the box?	**YES**	**NO**
Can you see the top of the box?	**YES**	**NO**
Can you see the left side of the box?	**YES**	**NO**
Can you see the right side of the box?	**YES**	**NO**
Can you see the back of the box?	**YES**	**NO**

Explain your answer.

_____

_____

Q4. Can you show using arrows how the light travels from the flashlight inside the box?

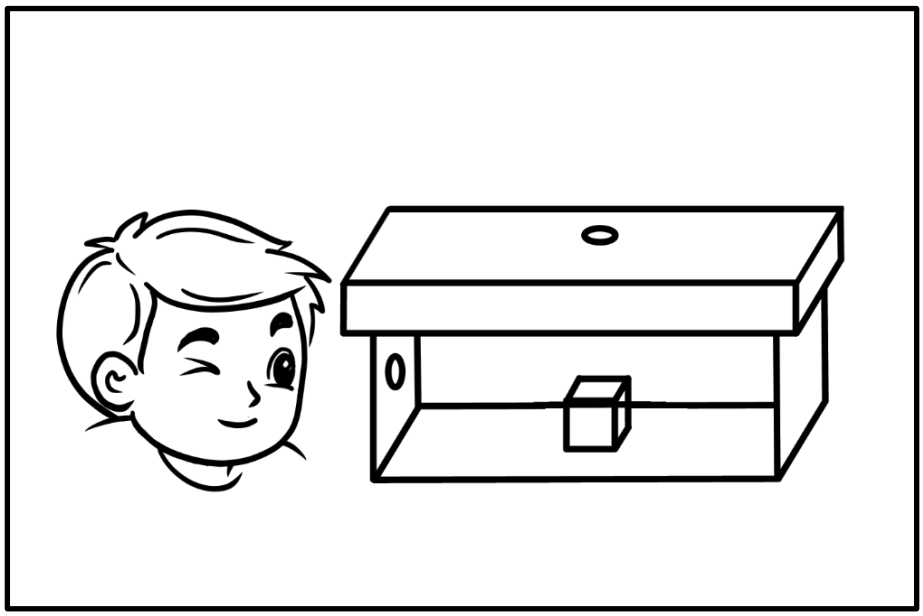


Explain your answer.

_____

_____

8. Remove the cover of the shoe box and set it aside.
9. Shape the clay into a cube, place it inside (center) the box, and then cover it again.
10. Cover the hole at the top of the box with masking tape again.
11. Look through the viewing hole at the side of the box as shown.



Guide Question:

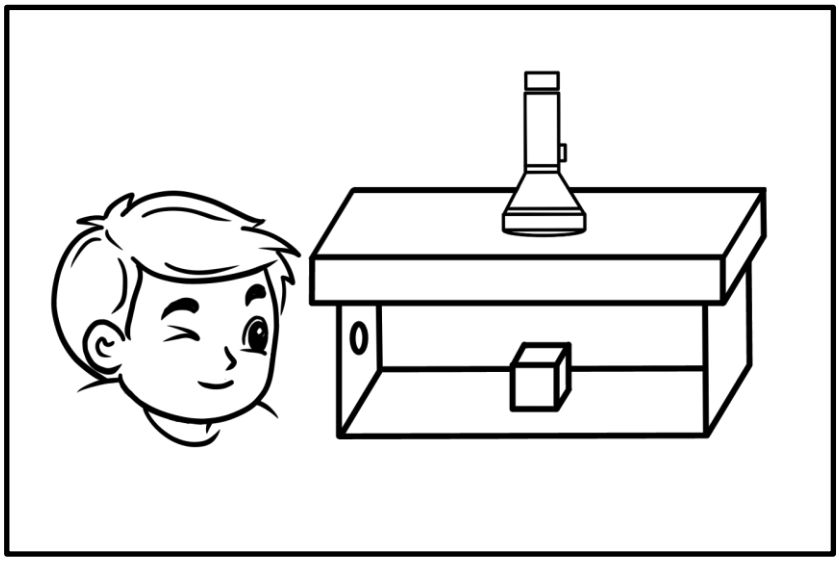
Q5. Can you see the clay? (Encircle your answer.) **YES/NO**

Explain your answer.

_____

_____

12. Remove the masking tape from the top hole of the cover and place the flashlight over the hole.
13. Switch on the flashlight and then look through the viewing hole again.



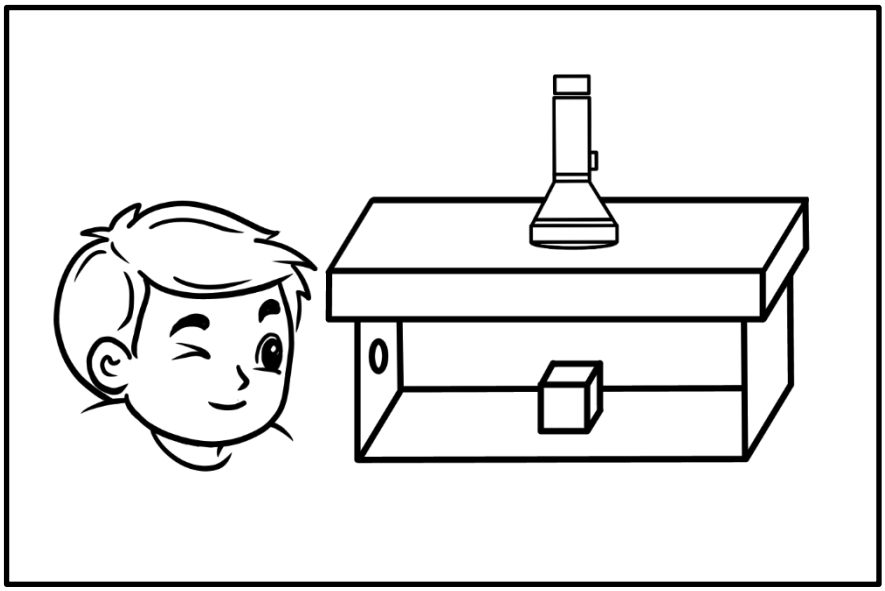
Guide Questions:

Q6. Can you see the clay? (Encircle your answer.) **YES/NO**
Why?

_____

_____

Q7. Can you show using arrows how the light from the flashlight reaches the clay in the illustration below?



Q7. Now, after the light hits the clay, how does it reach your eyes? Can you show this in the illustration above by using arrows?

Assessment:

The learners' performance of the activity and accomplishment of the activity sheet will be assessed using the grading rubric below.

Criteria	Excellent	Progressing	Needs Improvement	Weight
Understanding of Concepts	Shows a clear and accurate understanding of the science concepts involved. Uses the data collected as evidence to support and logically explain their answers. Explains how the object inside the box can be seen by correctly drawing the path of light.	Shows some understanding of the science concepts involved. Uses the data collected to support most of their explanations. Explains how the object inside the box can be seen by drawing the path of light, but with minor errors.	Shows limited understanding of the science concepts involved. Does not use the data collected as evidence to support their explanation. Does not use reasoning to connect the data to their explanation.	35
Accuracy of collected data	All data collected is accurate and reflects the actual observations.	Most of the collected data is accurate with minor inconsistencies.	Data is frequently incorrect or doesn't match what likely occurred.	25
Collaboration	Worked well with the group, shared relevant ideas, listened to others respectfully, and helped the group.	Worked adequately with others but could have shared more relevant ideas or helped more.	Did not work well with the group and had trouble sharing ideas, listening to others, or helping out.	20
Completion and Timeliness	Completed all tasks well before the time.	Completed all tasks mostly on time.	Required additional time to complete the task.	20

ACTIVITY SHEET

Learning Area:	Science	Quarter:	3
Week:	5	Days:	3
Lesson Title/ Topic:	How does light travel from a source?		
Name:		Grade & Section:	3

Activity 3: How does light travel from a source?

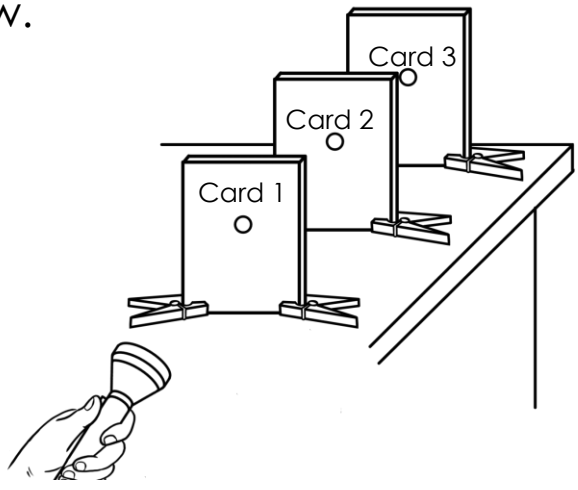
Materials Needed:

- Flashlight
- 3 cards with a small hole
- 6 clothespin or clay
- Ruler

Duration: 15 minutes

Instructions:

1. Attach 2 clothespins to the bottom of each card so it can stand on its own.
2. Place the cards in a line in front of a wall. Make sure the cards are at least 10 centimeters apart, as shown in the figure below.



3. Switch on the flashlight and point the light directly at the hole on Card 1. Make sure to turn off the room lights to darken the classroom.
4. Move Cards 2 and 3 until the light that passes through Card 1 reaches the wall. Make sure to hold the flashlight steady.

Guide Question:

Q1. Did the light from the flashlight reach the wall? Encircle your answer. **YES** **NO**

Draw what you see on the wall in the box below.

5. Without moving the flashlight, move Card 1 slightly to the left.

Guide Question:

Q2. Can you still see the light from the flashlight on the wall? Encircle your answer. **YES** **NO**

What do you think happened?

_____

_____

6. Move Cards 2 and 3 until you see the light on the wall again.

Guide Question:

Q3. Were you able to correctly arrange the cards so that the light reached the wall?
Encircle your answer. **YES** **NO**

How did you arrange the cards to do this?

_____

_____

Q4. What does this tell you about how light travels from a source?

_____

_____

Assessment:

The learners' performance of the activity and accomplishment of the activity sheet will be assessed using the grading rubric below.

Criteria	Excellent	Progressing	Needs Improvement	Weight
Understanding of Concepts	Shows a clear and accurate understanding of the science concepts involved. Uses the data collected as evidence to support and logically explain their answers.	Shows some understanding of the science concepts involved. Uses the data collected to support most of their explanations, but is unable to see how the data fits together to explain their answers.	Shows limited understanding of the science concepts involved. Does not use the data collected as evidence to support their explanation. Does not see how the data fit together to	35

			explain their answers.	
Accuracy of collected data	All data collected is accurate and reflects the actual observations.	Most of the collected data is accurate with minor inconsistencies.	Data is frequently incorrect or doesn't match what likely occurred.	25
Collaboration	Worked well with the group, shared relevant ideas, listened to others respectfully, and helped the group.	Worked adequately with others but could have shared more relevant ideas or helped more.	Did not work well with the group and had trouble sharing ideas, listening to others, or helping out.	20
Completion and Timeliness	Completed all tasks well before the time.	Completed all tasks mostly on time.	Required additional time to complete the task.	20

ACTIVITY SHEET

Learning Area:	**Science**	**Quarter:**	**3**
Week:	**5**	**Days:**	**4**
Lesson Title/ Topic:	**What happens when light hits an opaque object?**		
Name:		**Grade & Section:**	**3**

Activity 4: What happens when light hits an opaque object?

Materials Needed:

- Flashlight
- Two (2) solid opaque objects like a tin can or a tennis ball

Duration: 10 minutes

Instructions:

1. Point the flashlight at the wall. Turn it on and observe what happens.

2. Draw what you see on the wall in the box below.

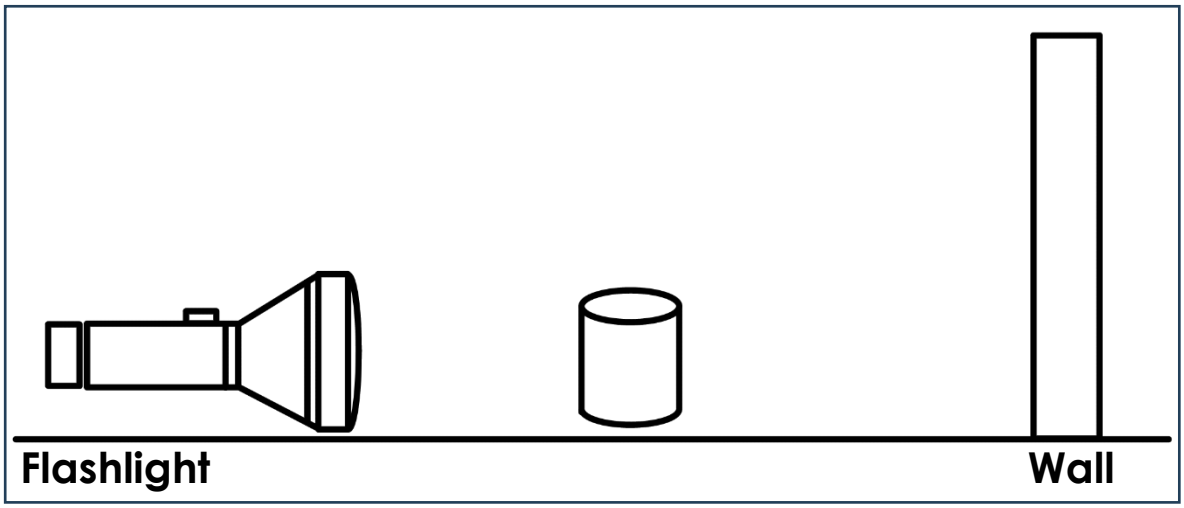
Guide Question:

Q1. What do you see?

_____

_____

3. Place the tin can between the flashlight and the wall. Then, switch on the flashlight.



4. Draw what you see on the wall in the box below.

Guide Question:

Q2. What do you see?

_____

_____

5. While the flashlight is still on, remove the tin can and replace it with the tennis ball.
6. Draw what you see on the wall in the box below.

Guide Question:

Q3. What do you see?

_____

_____

Q4. What did the tin can and the tennis ball do to the light from the flashlight?

_____

_____

Q5. What happens when light hits an opaque object?

_____

_____

Assessment:

The learners' performance of the activity and accomplishment of the activity sheet will be assessed using the grading rubric below.

Criteria	Excellent	Progressing	Needs Improvement	Weight
Understanding of Concepts	Shows a clear and accurate understanding of the science concepts involved. Uses the data collected as evidence to support and logically explain their answers.	Shows some understanding of the science concepts involved. Uses the data collected to support most of their explanations, but is unable to see how the data fits together to explain their answers.	Shows limited understanding of the science concepts involved. Does not use the data collected as evidence to support their explanation. Does not see how the data fit together to explain their answers.	35
Accuracy of collected data	All data collected is accurate and reflects the actual observations.	Most of the collected data is accurate with minor inconsistencies.	Data is frequently incorrect or doesn't match what likely occurred.	25

Collaboration	Worked well with the group, shared relevant ideas, listened to others respectfully, and helped the group.	Worked adequately with others but could have shared more relevant ideas or helped more.	Did not work well with the group and had trouble sharing ideas, listening to others, or helping out.	20
Completion and Timeliness	Completed all tasks well before the time.	Completed all tasks mostly on time.	Required additional time to complete the task.	20