

Teaching period: December, 2022 to January, 2023

Target students: P.5

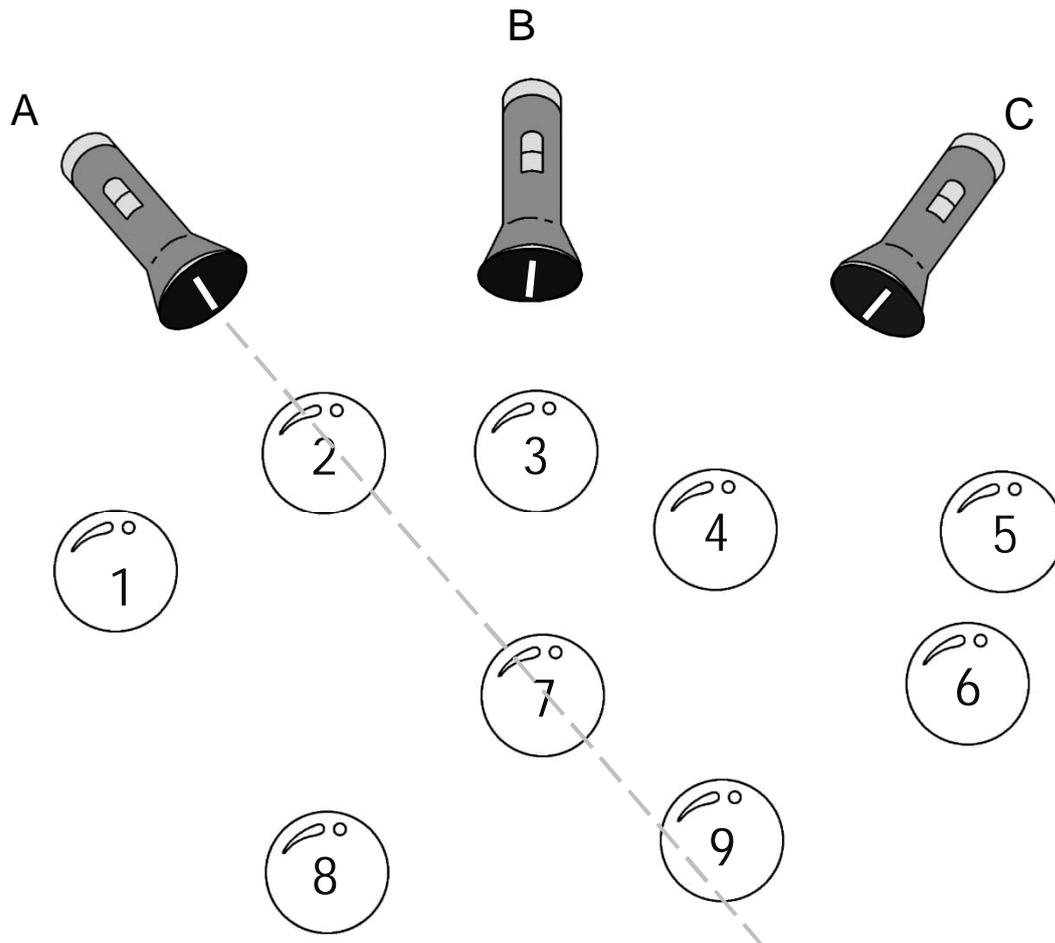
Related book and chapter: Book 2 Chapter 1 Properties of Light

Teaching timetable:

Time period	Session	Objectives	Materials
December, 2022	General studies lessons	<p>Students can understand:</p> <ul style="list-style-type: none"> - Light travels in straight line - Light can pass through transparent objects 	WS 1, WS 2
		<p>Students observe the image in the mirror and discuss:</p> <ul style="list-style-type: none"> - Is it laterally inverted? - Does the size of image change? <p>To prepare students to learn about periscope, students think more based on what they have learnt:</p> <ul style="list-style-type: none"> - If there are two mirrors, will the image be inverted or the same? 	WS 3
		<p>Students can also learn more about the followings:</p> <ul style="list-style-type: none"> - Comparing plain mirror and periscope, observe the image distance and the images are laterally inverted or not - Can concave mirrors and convex mirrors be used in a periscope? - If there are two or more periscopes connected, what will the image be like? 	
January, 2023	STEM Day (16/1-17/1)	<ul style="list-style-type: none"> - Students learn about the scientific principals of periscope - Students make periscopes - Students do testing on periscopes and refine their products 	

Book 2 Chapter 1 Properties of Light**How Does Light Travel?**

Based on the properties of light, predict which glass balls the light from the torches passes through. The torches are covered with a black paper with a slit in the centre. Write the correct answers on the _____.



1. The light from torch A passes through glass balls _____.
2. The light from torch B passes through glass balls _____.
3. The light from torch C passes through glass balls _____.

Book 2 Chapter 1 Properties of Light**Can light pass through objects?****Steps to conduct a reliable and effective experiment****1. Prediction**

- Use your 5 senses (observe, feel, touch, smell, listen)
- Predict the outcome/result

2. Test

- Conduct the experiment carefully, minimize the chances of human errors and maintain consistency (distance, material, try-out methods)
- Observe the result
- Record the result
- Go through the whole process again

3. Conclusion

- Draw conclusions based on the experiment

Materials :

1. Transparent/milky file
2. Foil paper
3. G.S textbook
4. Our own hand

Conduct the experiment:

1. Shine a torch on the materials one by one. Maintain consistency (same distance between the torch light and the objects)
2. Observe the light.
3. ✓ the things that light can pass through.

Complete the table below.

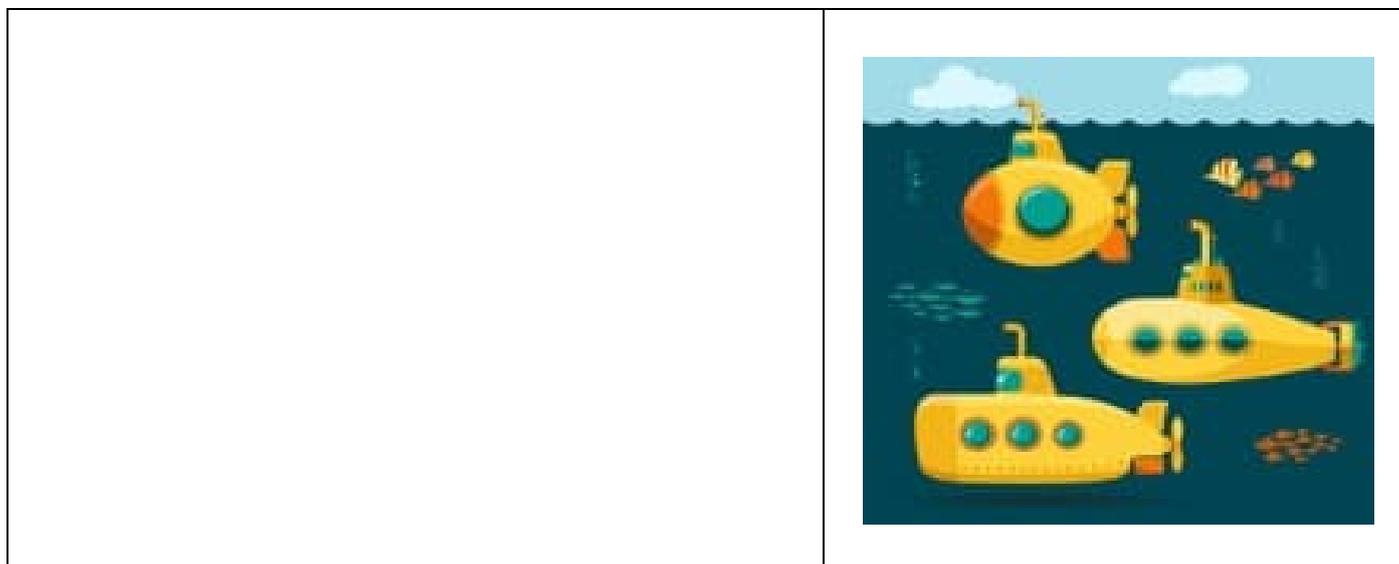
Items	A. Prediction Can the light pass through? (✓ or ✗)	B. Test 1 Light can pass through? (✓ or ✗)	C. Test 2 Light can pass through? (✓ or ✗)	D. Conclusion (transparent / opaque)
1. Transparent file				
2. Foil paper				
3. G.S textbook				
4. Our own hand				

***Conclusion:**

1. Light cannot pass through (transparent / opaque) objects.
2. When the light cannot pass through an object, it will form a _____.

Challenging question:

Do you know how the people in submarine watch the views outside water?



Book 2 Chapter 1 Properties of Light

Properties of an image formed by plane mirror

1. The image is laterally inverted.
2. The image is erect.
3. The size of the image is the same as the size of the object.
4. The distance between the image obtained from the mirror is the same as the distance between the object from the mirror.

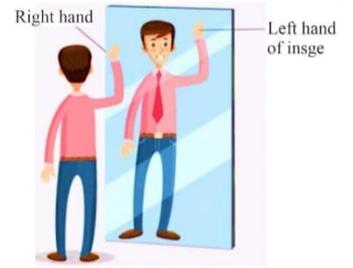
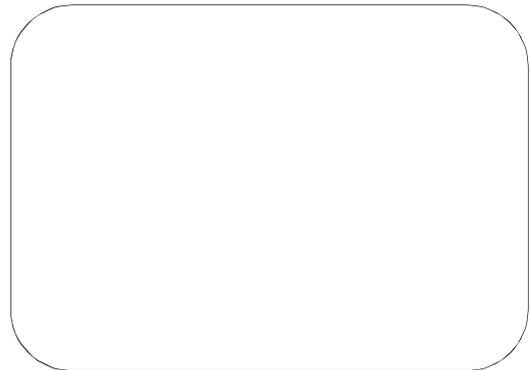


Image in the Mirror

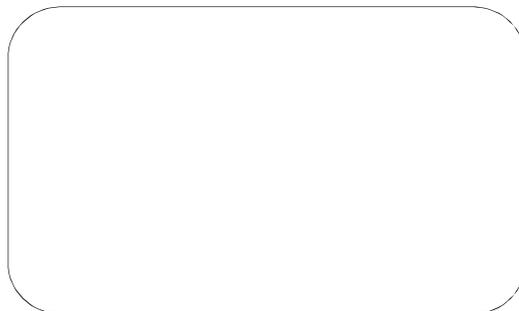
1. Place a plane mirror on the dotted lines with the front of the mirror facing the letters. Draw the image in the mirror in the .

(1)

Z



(2)



Z