



Provincial Department Of Education – Sabaragamuwa
WEEKLY SCHOOL

Subject : Science

Grade 7

Week : 9th of 2nd Term

Unit 9 – Light(3)

✓ Complete the following activities using the textbook or other appropriate learning resources.

Activity 9.8

You will need :- A candle, two plane mirrors, a protractor

Method :-

- Keep two plane mirrors at an angle of 90° and place a lighted candle between them.
- Count the number of images formed.
- Change the angle between the plane mirrors as 60° , 45° and 30° and count the number of images formed in each instance
- Tabulate your observations as indicated below.

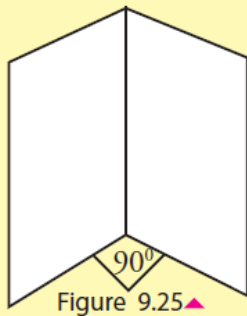


Figure 9.25 ▲

Table 9.3 ▼

Angle between the two plane mirrors (degrees)	Number of images formed
90	
60	
45	
30	

Assignment 9.4

- Observe the number of images formed, when the angle between two plane mirrors are decreased.
- Mention the number of images formed/the nature of images when an object is kept between the two parallelly placed plane mirrors.

Assignment 9.5

Multiple images formed by plane mirrors are used in day-to-day life. Find out and report several such instances.

➤ Write down five instances where plane mirror are used.

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➤ **How to construct a Kaleidoscope.**



Activity 9.9

You will need :- Three strips of plane mirrors with equal dimensions (6 cm x 2 cm), black paper, gum tape

Method :-

- Keep the strips of plane mirrors triangularly as shown in Figure 9.27. Cover one end with the piece of tissue paper.
- Cover the mirrors with black paper and stick securely with gum tape.
- Put small coloured items like beads, petals into this and observe through the open end. Turn round the instrument to see how the coloured patterns change.

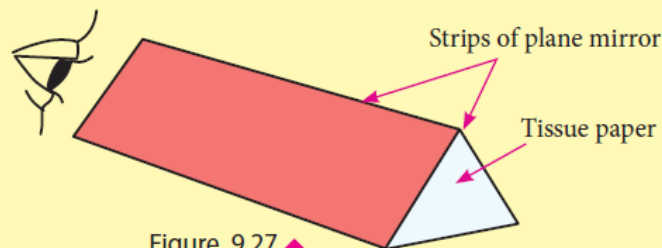


Figure 9.27 ▲

➤ **Let's make a Periscope.**



Activity 9.10

You will need:- Two identical plane mirrors, pieces of cardboard sheet, gum tape

Method:-

- Make tubes of appropriate size, using the piece of cardboard sheet construct the equipment as shown in the Figure 9.29. Place the pieces of mirrors at an angle of 45° at each bend. Get the assistance of your teacher for this construction.
- Observe objects through the instrument you made.

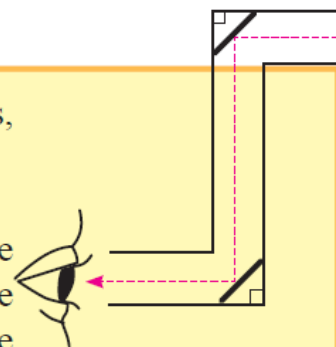


Figure 9.29 ▲



Assignment 9.6

Find out and record other instances where periscope is used.