

Class : 5

Basic Science

Time : 2 hrs

Instructions

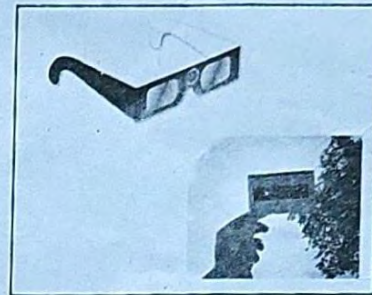
- ◆ 15 minutes is given as cool - off time. This time is to be used for reading the question paper.
- ◆ Attempt any 6 from the 8 questions given below.

Activity - 1

- A) Which among the following groups are used to observe solar eclipse safely?



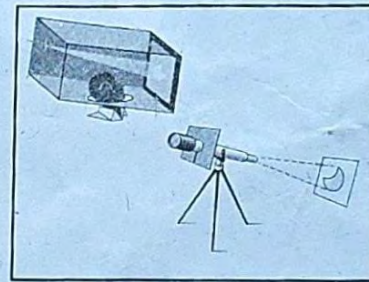
Group - 1



Group - 2



Group - 3



Group - 4

Observe the picture given below.



Pic - 1



Pic - 2

- B) The different types of solar eclipse are given above. Which are they?
- C) Choose the right statement from the following.
- i) When the shadow of the Moon falls on the Earth, it is called lunar eclipse.
 - ii) When the shadow of the Earth falls on the Moon, it is called solar eclipse.
 - iii) When the shadow of the Earth falls on the Moon, it is called lunar eclipse.
 - iv) When the shadow of the Sun falls on the Earth, it is called solar eclipse.

Activity - 2

Flood and survival are the greatest challenges we face now a days.
 The natural calamities due to rain are flood, land slide, drowning,
 sea turbulence, etc.

A) Some natural calamities and their preventive control measures are given below. Add some other methods of prevention.

Flood

- Don't hinder the flow of water.
-

Drowning

- Give warning alerts periodically.
-

- B) Find out the reason for land slide from the following.
- i) The cultivation methods with large scale soil digging.
 - ii) Encroachment of river banks for construction.
 - iii) Levelling of water bodies and agricultural fields.
 - iv) The unscientific construction works in steep places.
- C) There are voluntary organizations which participate in rescue operations during natural calamities. Name a voluntary organization suitable for the service-minded students in your school.

Activity - 3

Most of the plants disperse seeds in different ways. Dispersal of seeds by birds, throwing away of seeds after eating mangoes, etc. are some of the examples of seed dispersal.

A) Complete the table using the hints given below.

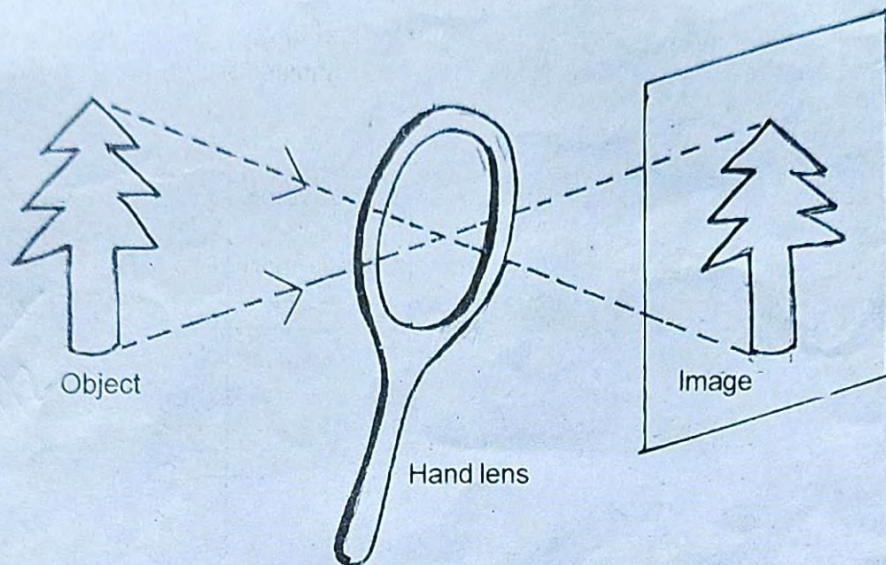
- ◆ Jackfruit tree
- ◆ Ladies finger
- ◆ through wind
- ◆ through animals
- ◆ through water
- ◆ by bursting

Plants	Mode of dispersal
.....
.....

- B) Write down the adaptations for the dispersal of the given seeds.
- i) Pappus
 - ii) Arrow grass
- C) Which among the following plants disperses seed through water?
- i) Screw pine ii) Fig iii) Mango tree iv) Coconut tree

Activity - 4

The picture drawn by a child related to the image formation inside the eye is given below.



- A) Find out the mistakes in the picture and write it down.
- B) What information do we get of an object through the eyes?
- C) When we look at an object, the image falls on,
- The lens and the retina
 - The brain and the lens
 - The brain and the retina
 - Only on the retina.

Activity - 5

'Filament less Kerala' is a project being implemented in Kerala. There are people still using filament bulbs only.

- A) Write an experiment to show how filament bulbs consume more electrical energy.

Observe the consumption of electricity in two houses.

House 1
◆ Switching off TV and fan while leaving the room.
◆ Opening the fridge frequently to take things out.
◆ Not using fan and light when there is no one in the room.
◆ Uses water pump frequently to pull water.

House 2
◆ Each one in the family irons clothes at different times.
◆ Uses water pump once in a day.
◆ Avoids opening fridge frequently and switches off the fridge at night too.
◆ Will not switch off TV and fan while leaving the room.

- B) Analyse the consumption of electricity in these houses. Give some suggestions to the members of each house to minimize the electricity bill.
- C) Name one gaseous fuel.

Activity - 6

Following are some information about a survey conducted by the students as part of a programme named 'A basket full of vegetables' organised by the Science club.

Analyse the table and answer the following.

Things done by child farmers	Child farmer 1	Child farmer 2	Child farmer 3	Child farmer 4	Child farmer 5
Quality seed has been selected	✓	✗	✓	✓	✗
Prepares well drained and fertile soil.	✗	✗	✓	✗	✗
Seeds are planted at a distance.	✓	✗	✓	✗	✓
Proper watering.	✓	✗	✓	✗	✓
Proper manuring.	✗	✗	✓	✓	✗
Controlling of pests and weeds.	✗	✗	✓	✗	✓

- Which among these child farmers has done vegetable farming in the best manner?
- What are the benefits of a farmer who cultivates vegetable scientifically?
- What are the suggestions that can be given to the child farmers who did not get better yield?




Activity - 7

Look at the cartoon....



- A) Didn't you notice the opinion of the boy? What did the child mean by fuel? What is the reason behind it?

Observe the responses of some people who use firewood stove.

- 
- 
- 

- B) By examining the opinions, suggest two methods to improve the efficiency of firewood stove.
- C) "The firewood stove which is smoking burns again when we blow it." Find the reason from the following statements.
- i) The carbon dioxide in the exhaled air helps in burning.
 - ii) While blowing, the oxygen gets into the stove.
 - iii) The smoke dissipates when blown.
 - iv) The ash in the coal moves when blown.

Activity - 8

Some equipment which make our job easy is given below.



scissors



cutting pleir



lemon squeezer



nut cracker



forceps



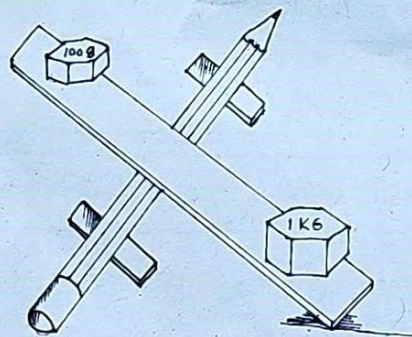
stapler

- A) Group these instruments suitably.

Observe the picture.



- A) This is the picture of scissors which is used to cut paper, cloth, etc. If this is to be used for cutting a tin sheet, what changes should be made in its assembling?
- B) A log scale is placed on the top of a fixed pencil. The following picture shows a 100 gm and a 1 kg weight kept at both ends of the scale.



If we want to raise 1 kg weight using 100 gm weight;

- i) Place the 100 gm weight on the top of the scale near the pencil.
- ii) Place 1 kg weight on the top of the scale far away from the pencil.
- iii) Place 100 gm weight on the top of the scale far away from the pencil.
- iv) Place 1 kg weight on the top of the scale near the pencil.