



# INDIAN SCHOOL DARSAIT DEPARTMENT OF SCIENCE



<b>Subject :</b> Science	<b>Topic :</b> Sorting materials into groups/Changes around us / Garbage in ,Garbage out/Light, Shadows & Reflections	<b>Date of Worksheet :</b> _____
<b>Resource Person:</b> Mrs.Induresmi/Prabitha Prasanth/Saritha Kishore		<b>Date :</b> _____
<b>Name of the Student :</b> _____	<b>Class &amp; Division :</b> _____	<b>Roll Number :</b> ____

## SORTING MATERIALS INTO GROUPS

1. Write the name of materials used to make the objects given below. 1

Objects	Materials	Objects	Materials
Cup	-----	Door	-----
Pencil	-----	Toy	-----
  
2. **Choose the correct answer from the bracket.** 1 mark each

A.Bhavik found a bag containing the following materials .

(i)Mirror (ii) Paper stained with oil (iii) Glass spectacles (iv) Magnet.

Help Bhavik in finding out the materials which are opaque.  
 (a) i & ii (b) i & iii (c) i & iv (d) ii & iv

B .Which of the following is not miscible in water?  
 (a)Honey (b) Pepsi (c) Olive oil (d) Orange juice

C.Which of the following would sink in water?  
 (a)A dry leaf (b) Thermocol (c) Plastic ball (d) A piece of glass
  
3. Circle the odd one out. Give reason for your choice. 1 mark each
  - a) Copper , silver , gold , wood
  - b) Balloon , coin , key , stone ,eraser
  - c) Limejuice, vinegar , kerosene , alcohol, milk
  - d) Sponge , cotton , silk , dice , feather
  
4. **Fill in the blanks.** 1 mark each
  - a) An ----- can be made of a single material.

- b) An object can be made up of more than one -----.
- c) One ----- can be used for making many different objects.
- d) Oiled paper , Muddy water and fog are -----
- e) The gases used by aquatic animals are -----

- 6 **Write True or false** ½ mark each
- a) Old metals shine
  - b) Diamond is a translucent material
  - c) Grouping of things makes our life comfortable.
  - d) Kerosene oil dissolves in water.
  - e) Mercury is a shiny metal.

**Answer the following.**

- 7 Why are silver and gold used to make jewellery? 1
- 5 Why are aquatic plants put in an aquarium? 1
- 8 On a bright Sunny day , Shikha was playing hide & seek with her brother. She hid herself behind a glass door. Do you think her brother will be able to locate her? If yes , why? .If no , Why not? 1
- 9 Raghav has a transparent paper .A liquid drops on it , making the paper translucent . Can you name the liquid that made the paper translucent? 1
- 10 Give an example to show that different objects can be made from one material. 1
- 11 Give an example to show that different materials are used to make one object. 1

**CHANGES AROUND US** 1

- 1 Identify the following changes as reversible or irreversible. ½ mark each
  - a) Fog on the surface of glass
  - b) Formation of clouds
  - c) Growing old
  - d) Digestion of food
  - e) Baking of cookies
  - f) Melting of ice cream
- 2 Mark ( → ) for irreversible and ( ↔ ) for reversible change ½ mark

- 1.Paper ( ) burnt paper each
- 2.Rice grain ( ) cooked rice
- 3.Organic matter ( ) compost
- 4.Chocolate cubes ( ) melted chocolate
- 5.Puppy ( ) dog

3 **Fill in the blanks** ½ mark each

- 1.A change which cannot be reversed is called\_\_\_\_\_.
- 2.Curdling of milk is an \_\_\_\_\_ change.
- 3.Absorption of water by a sponge is an example of \_\_\_\_\_ change.
- 4.Gaps are left between railway tracks to avoid any accidents due to \_\_\_\_\_.

4 **Complete the following analogy:** ½ mark each

- 1.Reversible : Irreversible::\_\_\_\_\_ : Ripening of fruit.
- 2.Burning of candle:Melting of wax::Irreversible:\_\_\_\_\_.

5 Paheli mixed flour and water and ½ mark each

- (i)made a dough (ii) rolled the dough to make a Chappati
- (iii) baked the Chapatti on a pan (iv) dried the Chapatti and ground it in a grinder to make powder
- Identify the changes (i) to (iv) as the changes that can be reversed or that cannot be reversed.

6 **Choose the correct answers from the bracket.** 1

- An iron ring is heated . Which of the following statements about it is correct?
- a) The ring expands (b) The ring comes to the same size on cooling
- (c) The change in this case is reversed (d) The ring changes its shape and the change cannot be reversed .

### **GARBAGE IN , GARBAGE OUT**

I **Choose the correct answer** 1 mark each

1. Which one of the following is biodegradable ?  
 a) Orange peel b) Aluminium foil c) Steel d) Plastic bottle
2. A worm used in vermicomposting  
 a) Redworm b) Hook worm c) Tapeworm d) None of these

3. Example of municipal solid waste is  
 a) Paper                      b) Batteries                      c) Packing materials                      d) All of these
4. Solid non-biodegradable waste is dumped on  
 a) Landfills                      b) Dustbins                      c) Roadsides                      d) Gardens

**II Fill in the blanks**

1 mark each

1. Leftover food is the example of -----
2. Making useful things from waste material is called -----
3. The ----- in Delhi is an example of a landfill park.
4. The blue waste bin is to collect ----- and green waste bin is to collect -----
5. Converting plant and animal waste into manure is called -----
6. ----- pollution is caused due to dumping of solid wastes.

**III Write True or False for the following statements:**

½ mark each

- i. Composting is better than burning
- ii. Gaseous waste is also called garbage
- iii. Redworms help in composting
- iv. Kabadiwala buys waste from us for recycling
- v. All wastes are biodegradable
- vi. Biogas can be prepared from cow dung
- vii. News papers cannot be recycled
- viii. We should waste paper as much as we can because it can be recycled

**IV Match the following**

½ mark each

- | <b>A</b>           | <b>B</b>             |
|--------------------|----------------------|
| a. Vegetable waste | i. Non-biodegradable |
| b. Metals          | ii. Solid waste      |

- c. Polythene bags iii. Vermicomposting
- d. Red worm iv. Biodegradable

6. Help the garbage collector to separate the following items into blue and green containers

Plastic bags, newspaper and journals, screw and nuts, vegetable peels, metal chips, egg shells

7. Two separate pits A, B are dug in ground. Material A is placed in pit A and material B in pit B. Both the pits are then covered with soil. When the pits were dug up after a month, it was found that material A remained as such but material B had 'rot' completely ½ mark each

- i) Name the material A and B
- ii) Give one example of the material A and B
- iii) What is responsible for rotting of material B?
- iv) If redworms were added to pit B and result was manure E. what will be the name of the manure?

8. To what use can you put the following kinds of garbage and how?  
 (i) Rotting smelly garbage (ii) Dry leaves (iii) Old news papers

### **LIGHT-SHADOWS AND REFLECTIONS**

**I Choose the correct answer.**

- 1. The shape of shadow depends on- 1  
 (a) the size of the source of light (b) the shape of the object  
 (c) the position of source of light (d) all of the above
- 2. The camera that forms an inverted image of an object on a screen- 1  
 (a) digital camera (b) pinhole (c) periscope d) kaleidoscope
- 3. Which of the following is not always necessary to observe a shadow? 1  
 (a) Sun (b) Screen (c) Source (d) Opaque object
- 4. Which of the following can never form a circular shadow? 1  
 (a) A ball (b) A flat disc (c) A shoe box (d) An ice cream cone

**II Fill in the blanks**

- 1. In plane mirror images are of ----- size. 1
- 2. An object which does not emit light is called ----- 1

3. Any ----- surfaces produce images 1
4. The image formed in a pin hole camera is ----- 1  
-----

III **Give one word / two words to replace the statement**

5. An object which allows part of light falling on it to pass through- 1
6. An object which gives out own light- 1
7. The process of bouncing back of light from a given surface- 1
8. A celestial body that reflects the light- 1
9. The impression of an object as seen in a plane mirror- 1

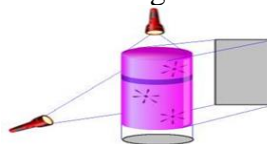
IV Write **true** or **false** for the following statements.

½  
Mark  
each

- a. Light is a form of energy which cannot be seen-
- b. The image formed by pin-hole camera is inverted-
- c. We see the moon because it is luminous body-
- d. Colour of shadow depends on colour of the object-

V **Answer the following**

1. Three identical towels of green, blue and red colour are hanged on a cloth line in the sun. What would be the colour of shadows of these towels? 1
2. State the principle of a pin hole camera. 1
3. Can you think of creating a shape that would give a circular shadow if held in one way and a rectangular shadow if held in another way? 1



4. Give two examples each for natural and artificial sources of light. 2

