

Unit 4

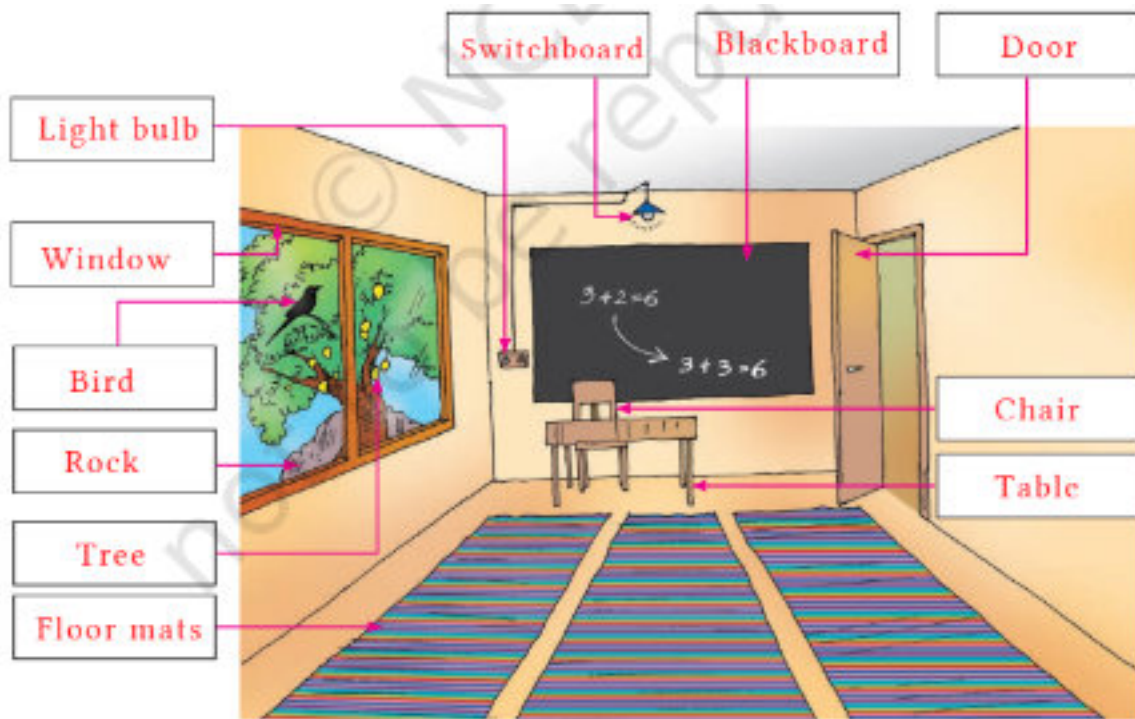
Things Around Us

10. This World of Things

Let's take a Look Around us!

Can you name the things that Khushi has drawn? Write in the boxes given.

Ans. Yes. I can.

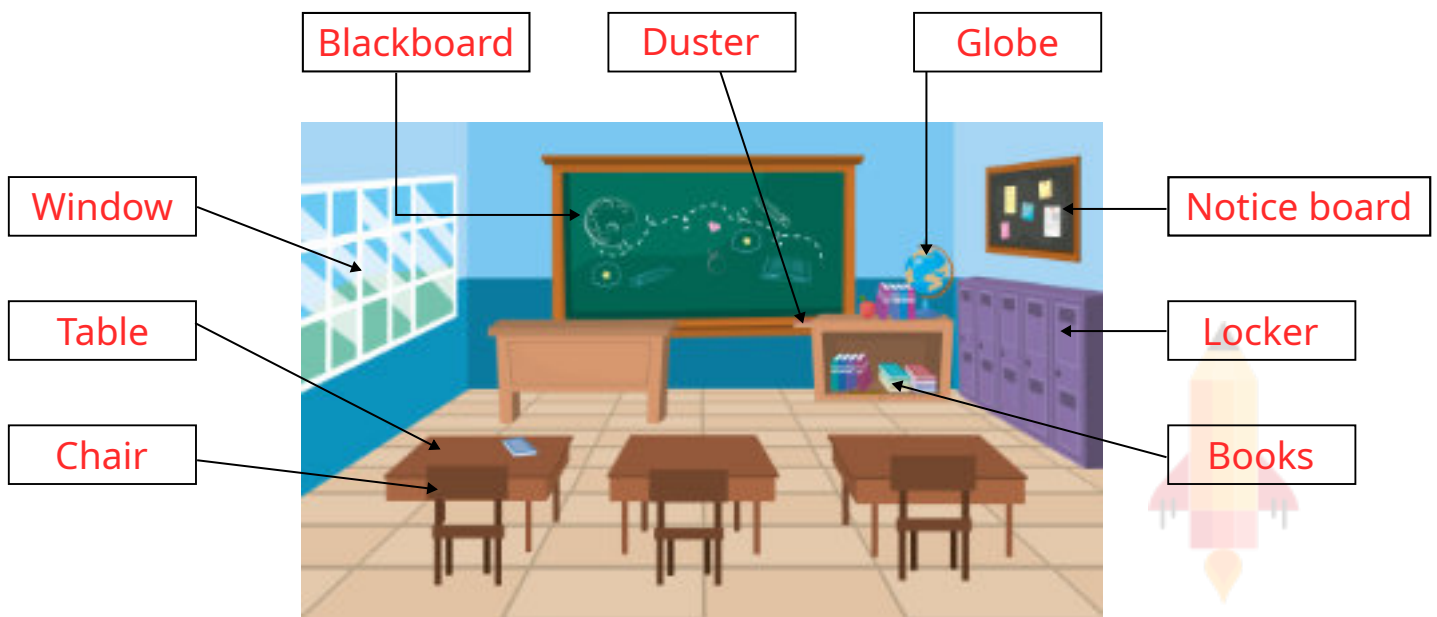


Do you see the window glass? Why or why not?

Ans. Yes, you can see through window glass because it's transparent.



Activity - 1



One Point Learning



Activity - 2

Find as many things or parts of things, that are made of metals. Which metals do you recognise around you? If you do not know the name of the metal, ask your friends or an elder. Make a list of these metals in your notebook.

Ans. I found many things around me that are made of metals. Some of them are:

- Spoon – made of steel
- Tap – made of brass
- Door handle – made of iron
- Coins – made of copper and nickel
- Nails – made of iron
- Scissors – made of steel
- Wires – made of copper

These are all useful things made from different metals that we use every day.



Find out

What are other things in the classroom, such as, mats, bulbs and electric switches, made of?

Ans. In the classroom,

- Mats are made of plastic, jute, or cloth.
- Bulbs are made of glass and metal.
- Electric switches are made of plastic and a little metal inside.

All these things are made from different materials to make them strong and safe to use.

See-through materials!

- Does your window have a glass pane?

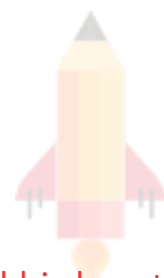
Ans. Yes, my window has a glass pane.

- Can you see through it?

Ans. I can see through it clearly.

- What do you see?

Ans. I see trees, flowers, people walking, and sometimes cars and birds outside.



One Point Learning



Activity - 3

Seeing through things

Collect a few small objects of different materials from your surroundings like bottles, papers, cloth and utensils, etc.

Look at a light bulb or a candle flame through them. You can see through some objects very clearly, you can partially see through some others, while you cannot see through some objects at all. Order these objects from those you can see through very clearly, to those you cannot see through at all.

Ans.

See through clearly	See through partially	Cannot see through at all
Glass bottle	Thin cloth	Wood
Plastic Wrap	Wax paper	Metal utensils
Clear plastic	Frosted glass	Cardboard
		Blanket



Activity - 4

Let us colour the world!

Collect two or three see through bags, bottles or thin cloth of different colours. Look at a sheet of white paper through them.

- Does the colour of the paper appear to change?

Ans. Yes, the white paper looks like it has taken on the colour of the plastic or cloth. For example, if we look through a red plastic sheet, the paper looks red.

- Does white paper appear different when you look at it through thin blue plastic or glass? Or, thin yellow plastic or glass?

Ans. Yes.

- Through blue plastic, the white paper looks bluish.
- Through yellow plastic, it looks yellowish.

The white paper changes colour because the coloured plastic or cloth only lets certain colours of light pass through.



One Point Learning

- Do the colours of different objects appear to change? How did a blue object look through thin yellow plastic?

Ans. Yes, the colours of objects change too.

- A blue object might look greenish or dark when seen through yellow plastic, because the yellow blocks some of the blue light.
- Objects can appear dull or even like a totally different colour!
- Have you earlier experienced looking through coloured transparent objects? Try to recall such experiences.

Ans. I may remember:

- Looking through coloured sunglasses or plastic wrappers.
- Looking through a coloured water bottle.
- Seeing coloured light during festivals or on stage.



Write

Chain Game

- In the table below, Khushi has grouped objects according to the materials that they are made of. Her list of objects is in the first column of the table. The names of the materials are in the second column.
- The third column of the table is for you to complete. Here write the names of some objects you have seen that are made from that material. Some objects around you may be made from materials not in this list, e.g., clay and rubber are missing in Khushi's list. Use one of these to add an additional row in the table.

Ans.

Khushi's list	Name of the material	Objects made of this material which are in your classroom or home
Table, chair, door	Wood	For example, pencil, scale, almirah, bed
Door hinges, nails,	Metal	Scissors, spoon, tiffin box, keys
Windowpanes, light bulb	Glass	Mirror, spectacles, glass bottle, aquarium
Electric switches	Plastic	Water bottle, tiffin box, pen, bucket
(Additional row)	Clay	Pot, earthen lamp, clay toys



Where do all these materials come from? Can you locate their source?

- Wood — Tree
- Metals — Mines (found underground in the form of ores)
- Cloth — Plants (like cotton), Animals (like wool from sheep), Synthetic fibers (made from chemicals)
- Plastic — Petroleum (crude oil)
- Glass — Sand
- Clay — Earth/Soil



Find out

Talk to your Grandparents

- In their childhood, were these things made of the same materials?
- Are there new materials now that they might not have seen before?
- Are there any materials that they saw in their childhood that are not in use now? Why?

Ans: Yes, materials can differ in various ways, not just how they look. For example, texture, weight, etc.



Find out

- What material is your spoon made of?

Ans: My spoon is made up of Steel.

- Is it made of metal, wood or some other material? Can you guess?

Ans: Steel is an Alloy.

- Which of these words or phrases describes the spoon?

Smooth	Rough	Dull	Shiny
Feels cold to the touch			

Ans: The Spoon is Smooth and Shiny.



One Point Learning



Activity - 5

Knock on it and it will speak to you! Orchestra

Take a metal spoon and at least five objects made up of different materials- wood, metal, plastic, cloth and glass. Gently tap the spoon on each of them. Listen to the sound that each of them makes. Make your own words to describe all these different sounds.

Ans.

When I tapped a metal spoon on different materials, I heard these sounds:

Wood – Thak-thak

Metal – Ting-ting

Plastic – Tok-tok

Cloth – Dup-dup (very soft sound)

Glass – Tling-tling

I made my own rhythm using these sounds:

Ting, Tok, Thak, Tling, Dup!



Write

Odd Pairs

List five objects and pair them with a material that is not suitable for it! Explain why these materials will not work to make these objects. One example is done for you.

Ans:

S. No.	Objects	Material	Reasons
1.	Umbrella	Paper	Paper will tear if it gets wet in the rain
2.	Cup	Cloth	It is soft and cannot hold liquids.
3.	Shoes	Glass	It is breakable and not flexible, so it's dangerous for walking
4.	Window pane	Wood	You cannot see through wood, so it's not suitable for windows



One Point Learning



Activity - 6

Let's group them another way!

Here are the names of some objects: ink, a stone, smoke, ice, steam, a spoon, honey, a bottle, a bag, and water.

If it is a solid, write its name on the tray; if it is a liquid, write it in the bottle; if it is a gas, write it in the balloon. Add some of your objects in the tray, bottle, and balloon.

Ans:



Some objects could be confusing, such as sand sponge, or clay. Identify more such objects and write the names of at least three of them.

Ans: Cotton Candy, Silica Gel and Pumice Stone



Natural — Artificial

List out five things in each group.

Ans: Natural: Tree, Mango, Bird, Rock, Water Artificial: Clothes, Shoes, Table, Car, Book



Find out

Have you seen trees around you that bear flowers and fruits at special times of the year?

Ans: Yes, I have seen trees that bear flowers and fruits at special times of the year.



One Point Learning

For example:

- (i) Mango trees have flowers in February-March and fruits in June-July.
- (ii) Guava trees give fruits in winter (November-December).
- (iii) Apple trees grow fruits in summer (July-August).

Different trees have different seasons for flowers and fruits!

If you have ever eaten a ripe mango or seen mangoes in the market or watched a mango tree through the year, try to guess— at what time of the year did Khushi draw her picture?

Ans: Khushi most likely drew her picture in June, because mangoes ripen during the summer season. During this time, mango trees are full of ripe mangoes, and we can see them in the markets.

Could it be around January or around June?

Ans: It could be around June because mangoes ripen in the summer season. During this time, mango trees are full of ripe mangoes, and we can see them in the market. In January, mango trees usually have flowers but not ripe fruits.

Let us reflect



A. Write

Things around us are made of different types of materials. Write down the names of three materials we commonly see around us.

Ans: Wood Metal Plastic



B. Discuss

Suppose you find a shining spoon. You don't know if it is made of metal or whether it is made of some other material and then painted with shiny paint. How would you find out?

Ans: I would tap the spoon on a hard surface and listen to the sound it makes. A metal spoon would make a distinct ringing sound. I could also check the weight and feel of the spoon, as metal spoons are generally heavier and feel cooler to the touch than painted plastic spoons.



C. Draw

Draw three natural and three artificial things.

Ans:

Natural Things (Not made by humans)



Tree

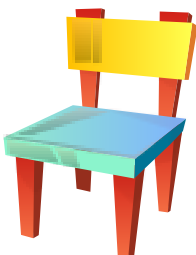


Rock



Bird

Artificial Things (Made by humans)



Chair



Tractor



Table



Do it

Match the pairs

Transparent	A lamp shade made of paper
Translucent	A plate
Opaque	A glass used in spectacles

Ans.

