

SORTING THINGS INTO GROUPS

You see and use many different things every day. You are usually able to identify these things without any difficulty because they are different from each other.

Examine the two things you have been given.

Do you see any differences between them? Note down these differences. (1)

Do they also have some similarities? If so, note these down as well. (2)

We will now repeat this exercise with some other objects.



MAKING GROUPS

Take the following objects from your science kit:

test tube, test tube stand, beaker, ball, cork, plastic cube, overflow vessel, marble, hand lens, glass tube, glass slide, measuring cylinder.

Do you know what these objects are? If you don't, ask your teacher to identify them.

Make sure you know what each object is.

Copy this table in your exercise book and fill the names of the objects you have in the second column. (3)

Among the objects

TABLE 1

No.	Name of the Group	Objects in the Group
1.	Glass things	
2.	Wooden things	
3.	Plastic things	
4.	Transparent things	
5.	Round things	
6.	Things that float in water	

given to you, is there anything that you haven't put into any group? If so, check carefully to see if you can put it into some group.

Now you have several groups of objects. There is at least one similarity between all the objects in each group. For example, in the first group everything is made of glass.

Thus, we see that we can put things into a group on the basis of a similarity. All the things in one group share that similar characteristic. We call this similarity the common characteristic of the group.

Now sort the objects into more groups on the basis of other similarities.

Write down the groups you make in Table 2. (4)

TABLE 2

No.	Similarity or Common Characteristic	Objects that fit in the Group
1.		
2.		
3.		
...		
...		

Think of at least one new item to add to each of these groups.

Discuss each name you have thought of with your class and decide if it has been added correctly. If it is correct, add the name to your list? (5)

Some characteristics (properties) are given below. Make groups based on these characteristics. Each group should have at least 10 members.

- (a) animals with tails
- (b) edible items
- (c) things made of iron
- (d) fruits
- (e) things used in the kitchen. (6)

Answer the following questions about the groups you have made, giving reasons.

Can frogs be included in group (a)? (7)

Can a mango be included in group (b)? (8)

Which group would a frying pan be a member of? (9)

- Would a hammer be a member of group (e)? (10)
 Can a mango be included in group (d) also? (11)
 Make a list of things that are made of iron and are also used in the kitchen and can, therefore, be included in both these groups. (12)

THINK IT OVER

- Does an item that belongs to two groups have,
- the characteristics of neither of the two groups,
 - the characteristics of both the groups,
 - the characteristics of only one of the two groups? (13)

ONE THING, TWO GROUPS

Making a group does not mean that we actually have to pick up a thing and place it in the group. Making a group means that we write the common characteristic of the group and list in it the names of things that have that characteristic.

The actual things can stay wherever they are. If there is something that has the characteristics of two groups, we can write its name in both groups. If something has the characteristics of three groups, it will be in all three groups.

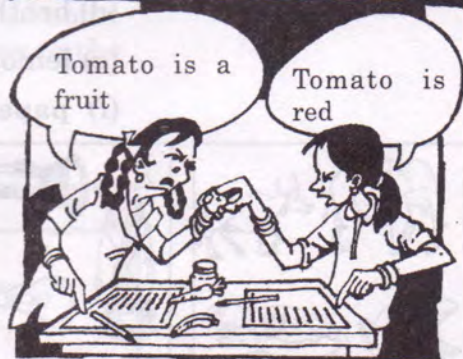
Sarla made a group of red things. Rashida made a group of fruits. They had an argument over a tomato. "It should be in my group," said Sarla. "No. It should be in my group!" countered Rashida.

Could both of them be correct? Give reasons for your answer. (14)

ONE THING MANY GROUPS

A tomato has many characteristics. Of all the groups listed below, which ones do a tomato fit into?

- (a) A group of round things
- (b) A group of sweet things
- (c) A group of coloured things
- (d) A group of sour things
- (e) A group of juicy things. (15)



TWO PROBLEMS

Dayalal noticed that kerosene floats on the surface of water. His friend Ramesh said, "Wood and cork also float on water."

"So I can put kerosene in the same group as wood and cork," observed Dayalal.

On the basis of which property did Dayalal put these three things together? (16)

"But kerosene is not solid like wood and cork. So you cannot put all three into the same group," objected Ramesh.

What do you think about his argument? (17)

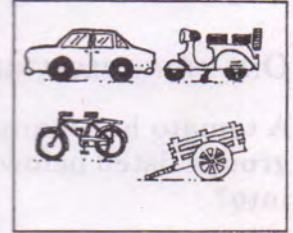
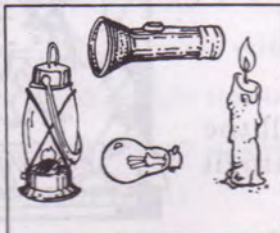
Some groups are given below. What is the common characteristic of each group?

- (a) cycle, tonga, train, bus, motorcycle, truck
- (b) pigeon, parrot, myna, butterfly, housefly, mosquito
- (c) kurta, trousers, shirt, dhoti, vest
- (d) milk, egg, honey, wool, leather. (18)

COMMON CHARACTERISTIC

Some groups are given below. In each group, there is one thing that doesn't fit in with the other three things. Which are the three similar things in each group and what is their common characteristic?

- (a) cow, dog, tiger, buffalo
- (b) bus, motorcycle, cycle, bullock cart
- (c) hen, lizard, pigeon, crow
- (d) brother, sister, maternal aunt (*mausi*), paternal aunt
- (e) lemon, papaya, tamarind (*imli*), *amchoor*
- (f) paper, pencil, pen, chalk. (19)



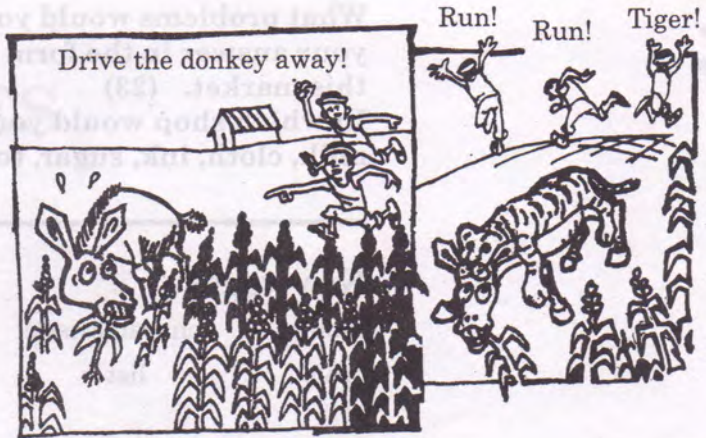
In each of the pictures given below there are four things. Three in each picture have a common characteristic while one does not.

You have to identify the three things that are similar and the one that is different. You also have to say what

is the similarity in the three things in each case. (20)

A DONKEY WEARING A TIGER'S SKIN

This donkey found a good way to be considered in the same group as tigers. But the poor thing got caught right away! What do you think was the characteristic that gave it away?



IMAGINE THIS MARKET

Have you ever been to the market? If you have, you must have noticed that different shops sell different things. One might sell foodgrain while another sells only stationery items.

Make a list of the different shops in your market and the kinds of things you get in each of them. (21)

Now imagine a market in which the shops are not like the ones you normally see.

Instead, one shop sells only white things, another only black things, a third only green things, a fourth only things made of iron, and so on.

The table below contains a list of such shops and some examples of the things they sell. Add more items to the list. (22)

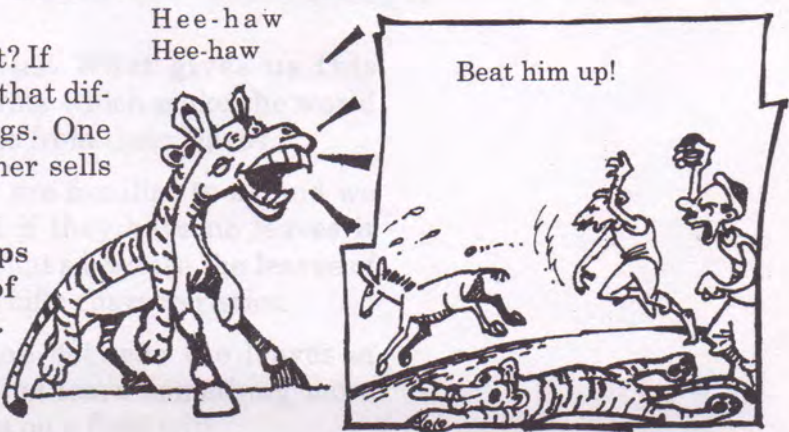


TABLE 3

No.	Type of shop	Items sold
1.	White things	Chalk, cotton,
2.	Black things	Black ink, <i>kajal</i>
3.	Green things	
4.	Things made of iron	
5.	Wooden things	
6.	Transparent things	
7.	Liquids	

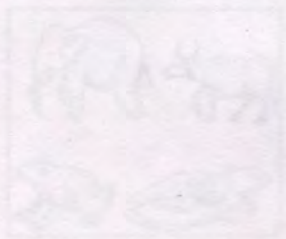
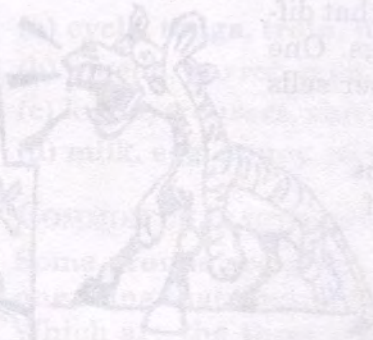


What problems would you face in such a market? Write your answer in the form of a short story about a visit to this market. (23)

In which shop would you get the following items: milk, cloth, ink, sugar, tomatoes? (24)

NEW WORDS

- | | | | |
|-------|----------------|------------|--------|
| group | characteristic | property | member |
| table | list | similarity | object |



No.	Type of shop	Items sold
1	What shop?	Cash, cotton
2	What shop?	Black ink, etc.
3	What shop?	
4	What shop?	
5	What shop?	
6	What shop?	
7	What shop?	
8	What shop?	