

16. Sensory Organs



Can you tell ?



Tai is blindfolded. Then, how did she tell what sound she was hearing?



What are the different things that Tai has in her hand? How does the boy guess what they are even when he is blindfolded?

Both of them are blindfolded now. But, they can tell which is a woolly sweater and which is a cotton shirt.

How do they do that?



You can also try these and other simple experiments with the permission of your elders.



Can you tell ?

- What is the colour of a raw mango? A ripe mango? How did you know that?
- What is the taste of salt? Of sugar? How did you know that?

A new term :

Sensory organs/sense organs : An organ that tells us about our surroundings. Our eyes, ears, nose, tongue and skin are our sensory organs or sense organs.

• Our five sensory organs

• **Imagine :** You are walking along the road. There is a ditch ahead. You see it and you walk around it. What would happen if you do not see the ditch ?



• You are playing in your neighbourhood. Suddenly, you hear thunder. You are able to reach your house before it begins to rain.



What would happen if you do not hear the thunder?

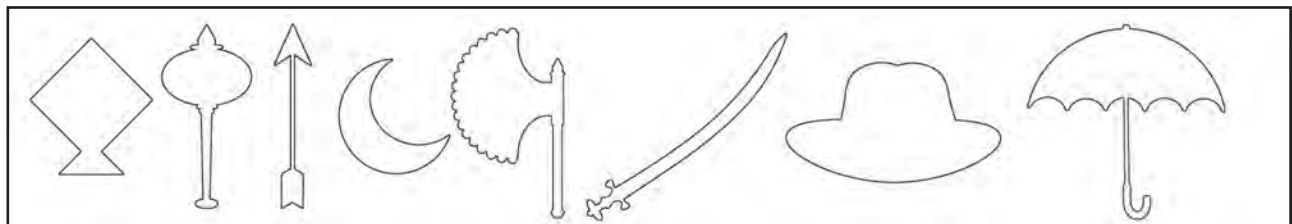
It is necessary for us to know what is happening in our surroundings. It helps us to decide what to do in any situation and we can keep ourselves safe.

How do we sense what is happening around us? It is our eyes, ears, nose, tongue and skin which tell us about our surroundings. Therefore, they are called our sensory organs.



Can you tell ?

(1) Name the things in the picture from their outlines.



(2) Name the things in the picture and their colours.



Eyes : It is with our eyes that we can see.

We can tell the colour of the things we see. We can tell their shape. We can also guess the distance of things from us.



Try this.

Play a game : ‘Curvy, pointy tiger claws, Peeping out of padded paws.’

Every student will get a turn to be ‘It’. ‘It’ will face the blackboard and cover his/ her eyes. The teacher selects 5 other students. From their own place, each of these 5 children will take turns to say loud and clear, ‘Curvy, pointy tiger claws, peeping out of padded paws.’

‘It’ must listen carefully and guess whose voice it was. If he / she is right, everyone claps. If he / she guesses the names of all five children, he / she gets a pat on the back from the teacher.



Ears: We hear with our ears. Mainly, we come to know what a person is saying to us. The ears also tell us whether the sound we hear is sweet or harsh. They can tell us whether the sound is that of a bird or an animal. They also tell us which direction a sound is coming from.



Can you tell ?

Why is Mother saying, 'Don't eat this mango'?



Nose: We can smell with nose. We perceive the smell of a fragrant flower or incense stick because of the nose.

Again, it is the nose which tells us that there is a foul smell in the air or that the food is spoilt. At such times, we can take proper precautions.



Use your brain power !

- In summer, how can we tell, without even looking outside, that it is raining nearby?
- What would be the benefit of knowing the direction from which a sound comes?



What's the solution ?

- There is a foul smell in the house.
- A food item is giving out a rotten smell.

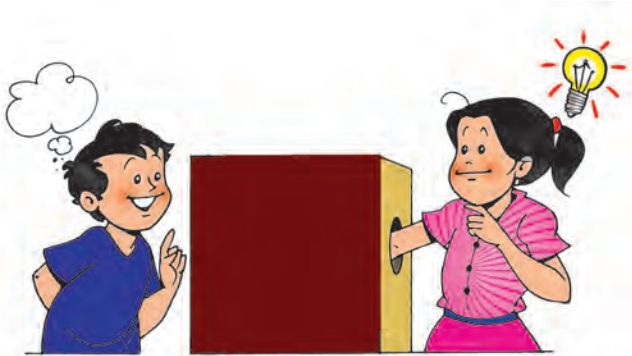
Tongue: We can taste with our tongue. Sugar and jaggery are sweet. Bittergourd is bitter. Lemons and raw mangoes are sour.

Salt is salty! It is due to the tongue that we know these tastes. If we eat a chilli, our tongue gets a burning sensation. We say that the chilli is hot.





Try this.



Another game : Feel it to find out!

You can play this game with four or five of your friends.

Take a big cardboard carton. Make a hole in one of its sides just big enough for your hand to go through. Place some small things in the box. For example, an eraser, a coin, a piece of a pencil, a pebble, a tamarind seed, etc.

Take turns at playing this game. Put your hand through the hole, pick up one thing and guess what that object is only by feeling it. Name the object before taking it out. Then take it out and show the others what it is.



Skin: We come to know if something we touch is hot or cold, rough or smooth, because of our skin.

• Co-ordination in our movements

We carry out many tasks.

For every task we make different kinds of movements. We use different parts of our body for these different movements.

The woman in this picture is roasting some peanuts in a pan. Which parts of her body is she using?

Her head is bent forward. She is holding the pan steady with the tongs in her left hand. With the spatula in her right hand, she is stirring the peanuts in the pan.



Her eyes are on the pan. She is watching to ensure that the peanuts are properly roasted.

Well roasted peanuts have a typical savoury flavour. When her nose gets that smell, she is going to put off the gas stove.

You can see that several parts of her body need to work together smoothly. If they were not co-ordinated she would fumble. The peanuts might spill. They may be overdone or they may not get roasted well enough.

We need co-ordination to get any task done smoothly. Lack of co-ordination gives rise to mistakes or muddles.



Use your brain power !

How are movements co-ordinated when stitching cloth on a sewing machine?

• Overcoming disability

If a part of our body does not function well, we face many difficulties. If our eyes do not function well, we cannot see properly. If our ears do not work as they should, we cannot hear well.

In such a situation, our movements are not smooth. We find it difficult to do things on our own. But such situations can be overcome. Some disabilities can be corrected by medical treatment. In some matters, we can take the help of other people. Often, some special devices can be used to overcome the disability. Then, it becomes possible to carry out our own tasks independently.



If we cannot see well, we can use spectacles. If we cannot see at all, we can make use of sounds, or feel with the hands to get things done. You might have seen a blind person using a white cane. Blind people use a cane to feel the way in front of them. The sounds they hear around them also help them to know the situation around them. Thus, they can make their way independently even on a crowded road full of traffic.



A person who cannot hear well, can use a hearing aid.

Those who cannot hear at all, can use sign language. In some cases, a surgery can help a person to hear.



If there is a defect in the leg, a special wheelchair can be used.

Then the defect in the leg is no more a hurdle.



Do you know ?

Arunima Sinha is a young woman from Uttar Pradesh. Once, when she was twenty-two years old she was travelling on a train. She had to fight off some thieves. In the scuffle, she was thrown off the train. Another speeding train ran over her. She was seriously injured.

Doctors saved her life, but they had to cut off her right leg. While she was in the hospital many people would come to see her. Each person would worry about her future. But, Arunima resolved that she would never give up. She would achieve something so extraordinary that no one could ever say she was helpless.

Doctors gave her an artificial leg. As soon as she got used to her new leg, she began to train for mountaineering. Just one year after her accident, she climbed one of the high peaks in the Himalayas. The very next year, she climbed Mount Everest, the highest peak in the world!

What can we learn from Arunima's story?



What we have learnt –

- * Our sensory organs tell us about the situation all around us.
- * The eyes, ears, nose, tongue and skin are our five sensory organs.
- * We can see with our eyes, hear with our ears, smell with our nose. We taste things with our tongue and feel them with our skin.
- * When we work, we need to have co-ordination in all the tasks. Difficulties may arise due to lack of co-ordination.
- * If any organ does not function well, we may face difficulties in doing our work.
- * We must not give up in the face of difficulties. They can be overcome.



Always remember –

Even if there is a disability in any organ, we can find a way out of that difficulty. We can learn to be self-reliant.



Exercises

A. What can be done?

Dinner is ready and mother has asked Sakina to call Grandpa. But, Grandpa cannot hear at all. How will Sakina tell him to come ?

B. Think and tell.

- (1) Yesterday's yoghurt is spoilt. It cannot be eaten. How would you know that?
- (2) Some ingredients we use in the kitchen are named below. What are their colours?
 - Turmeric • Coriander leaves • A ripe chilli • Salt • An unripe tomato

C. Which sensory organ gives you the following information ?

- | | |
|------------------------------|--|
| (1) The guava is sweet. | (2) The cuckoo is singing on the tree outside. |
| (3) The sunflower is yellow. | (4) The incense stick has a nice fragrance. |
| (5) The medicine is bitter. | (6) The towel is rough. |

D. Observe and write.

When playing cricket, the ball is to be hit with the bat. Which parts of your body do you use to do so? How do you co-ordinate your movements?

E. Answer in brief.

- (1) How are the two hands used while roasting peanuts?
- (2) What is meant by 'sensory organs'?
- (3) What help do we get from our sensory organs?
- (4) Why is co-ordination necessary?



F. Fill in the blanks.

- (1) Our eyes tell us how something is.
- (2) Our ears tell us which direction a is coming from.
- (3) The smell tells us that the air is
- (4) Our tells us that something is hot.
- (5) Our tongue feels as if it is burning when we eat a

Activities

- Those who cannot hear at all use sign language. Find out more about it.
- Listen to the sounds of different musical instruments.

