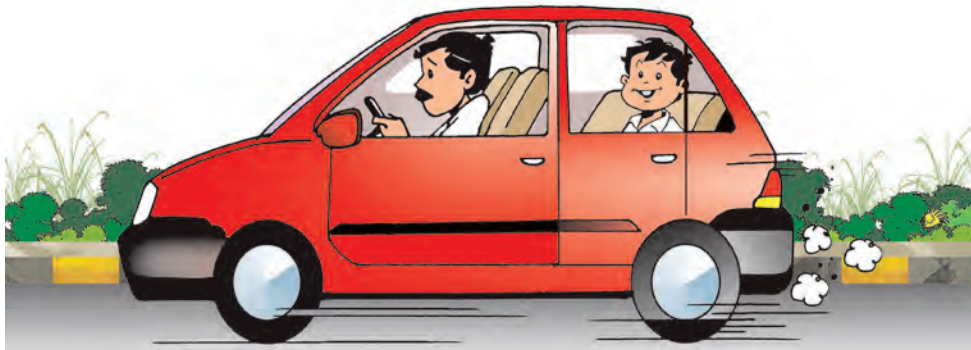


14. Transport

Try this.



Children, let us try an experiment.

Choose a friend's house, park, shop or school that is one kilometre away from your home.

- (1) On the first day, walk to your chosen place.
- (2) On the second day, ride to it on your bicycle.
- (3) On the third day, take an automobile.

While doing this, always take your school bag with you. Use the same route for all three journeys.

Now, note down the following.

1. The time taken for each journey on each of the three days.

2. Which journey took the longest time and which took the shortest time?
3. On which journey did you have to carry your own things?
4. Which was the most comfortable journey?
5. On which journey did you have to use fuel?
6. On which journey were you most bothered by smoke and noise?

From your answers, you will see that walking takes the most time and you have to put in labour to carry your own things. Using a vehicle saves time and effort.

You must have also realized that we need to use fuels in automobiles. This

causes air and noise pollution. It means that different modes of transport have different advantages and disadvantages.

In today's high speed world we have to depend on several modes of travel and transportation of goods. Modern means of transport have many advantages.

- Work gets done sooner.
- Time and effort are saved.
- Trade is facilitated.
- Different parts of the world are now connected due to transport facilities.
- The transport of goods even on a global level has become simple and easy.
- As so many things are easily available, the lifestyle of people has improved.
- The facilities of tourism, health, education, etc. have become speedier.

Due to the various means of transport, the world has come closer.

Have a class discussion on the advantages of transportation.

Can you tell ?



- Study the pictures and note the answers to the following –

1. Where have the children stopped ?
2. Why have they stopped there ?
3. What are the children doing ?
4. What is troubling them ?

- State the difference between the plants close to the road and those far away from the road, based on the following points.
 - (a) Freshness of leaves.
 - (b) Colour of leaves.
 - (c) Appearance of plants.

From the observations above, you must have realized that there is constant traffic on busy roads. Due to the burning of fuel in the vehicles they constantly emit smoke and some poisonous gases. These gases mainly include carbon monoxide, nitrogen dioxide and sulphur dioxide. Similarly, minute particles of carbon and lead are also released into the air. An excess of these substances lowers the quality of air in the environment. This is what we call air pollution.

Air pollution affects animals and plants in the following ways :

- Trachea, lung and eye disorders, e.g. burning of the eyes.
- The leaves of plants shrivel up and fall. Sprouts get scorched. The growth and development of plants is affected adversely.
- Constant traffic through forest areas can harm the habitat of plants and animals living there. The wild animals in these forests begin to migrate elsewhere.
- The constant sounds of vehicles create noise on a large scale. It causes ill effects such as restlessness, irritability, headaches, lack of concentration, psychological disorders, etc.

If there are traffic jams, air and noise pollution in that area increases.

Traffic accidents cause injuries, deaths and damage to the vehicles.

Have a class discussion on the harmful effects of transportation.

Can you tell?



- Walking
- Riding a bicycle
- Using a private vehicle
- Using public transport

Which of the above options will you choose on the following occasions?

- Going to study at a friend's house who lives nearby. ☐
- Going to your school which is about one kilometre away. ☐
- Taking materials to a science exhibition in another town. ☐
- Going to a wedding in the next town. ☐

From this, we realise that we should cultivate habits such as walking short distances or riding a bicycle for slightly longer distances. In this way, we can avoid the use of fuel-burning vehicles and reduce pollution. At other times, using public or private transport can save time and effort. In this way, we can reduce the severity of the harmful effects of transportation. The following are some more remedies for reducing pollution.

- Using fuels that cause less pollution.
- Timely maintenance and repair of vehicles.
- Using public transport as far as possible.
- Using private vehicles only when necessary.



Tree plantation

- Planting trees, especially indigenous or local varieties like banyan, peepul, neem, karanj, etc. and caring for them. These trees adapt easily to the local environment and help in enhancing biodiversity.
- Avoiding fuels that cause pollution; using fuels such as LPG or CNG for vehicles.



Have a class discussion on the remedies for pollution due to transport.

Do you know ?



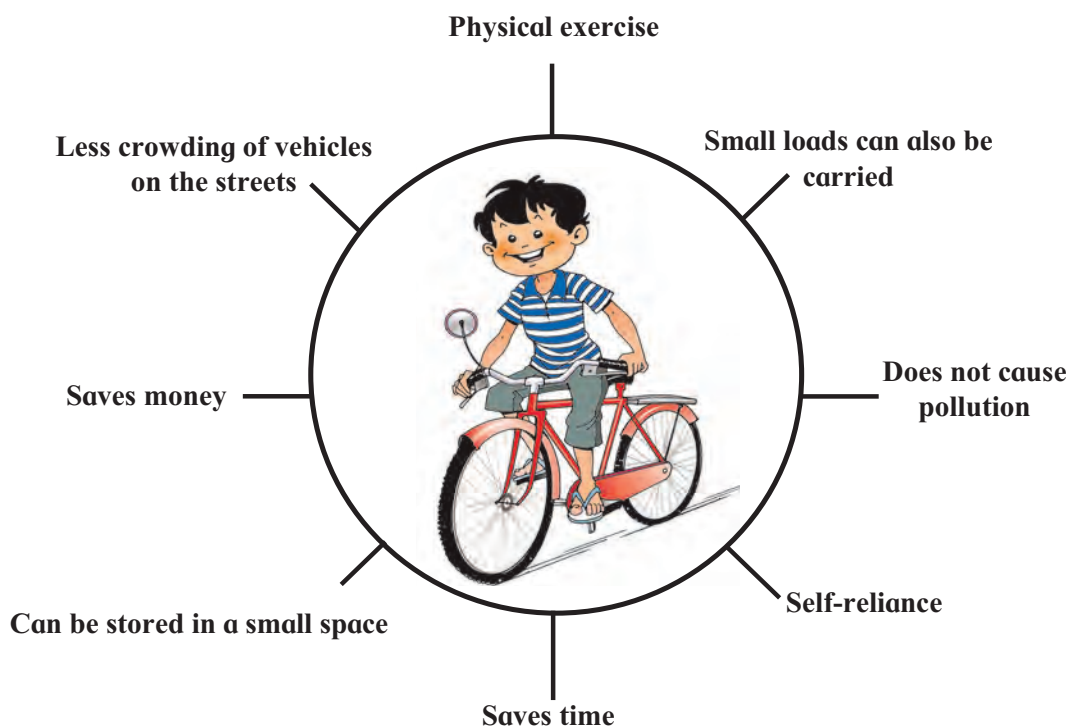
Always remember –



Our environment is sensitive. That is why, pollution has destructive effects on it. These effects are harmful for all living things, including us. It is very necessary to prevent pollution.

In these modern times, we use cars, ships and aeroplanes that run on fuel. In the olden days, ships did not use such engines. They had sails which helped to use the force of the wind. They were called sailing ships. In those days, people travelled all over the world on these ships.

Advantages of using a bicycle



What's the solution ?



Rohan and Sania always walk to school. Their school is thirty minutes away from their house. There is a cultural function at their school today. Their grandmother will accompany them to the function. But she gets tired easily because of her age. Which of the options listed below would you suggest for taking her to school?

- (1) Walking (2) Autorickshaw
(3) Bus (4) Scooter (5) Car

What we have learnt –



- The beneficial and harmful effects of transportation.
- Judicious use of means of transport.
- The danger to nature due to the pollution caused by various means of transport.
- Remedies for various types of pollution.

Exercises

1. Write five sentences on how you have benefited from transport facilities.
2. List four other facilities that have become available in the local area due to transport facilities.
3. Suggest four solutions to reduce the burden on the local transport.
4. Find the area in your locality with the least pollution. Why is this the least polluted area?
5. Write the full forms of CNG and LPG.



6. (a) In the above picture, which vehicle is causing pollution?
(b) What remedy will you suggest to reduce the pollution caused by this vehicle?

Activities

1. Spread the message of prevention of pollution through a street play.
2. Collect pictures of vehicles that run on electricity and on solar energy.

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