What can you do to care for shared places?



Put waste in a bin.



Switch off lights and fans when they are not needed.



Turn off taps when they are not being used.



Follow rules in shared places. For example, keep quiet in libraries and do not pluck flowers in parks.



Do not write on walls and benches. Leave benches and other shared things clean.



Tell an adult if something is broken or unsafe. Do not try to fix it yourself.

Communities Work Together

People in a community often come together to complete a task, celebrate an occasion or help someone in need. They may share their time, skills, things or money.

Working together makes difficult tasks easier. It also makes people feel connected and responsible for one another. When everyone helps out, the whole community benefits.

Let's Do Choose one shared place near your home or school. Write who uses it, who looks after it, one problem it may have and one way you can help.

A Few More Steps

Payments then and now—from barter to digital payment



Long ago, people got what they needed by exchanging things with each other. This system is called barter. In barter, one thing or service is given in return for another, without using money. For example, a potter might give pots to a farmer and get grain in return. A farmer might give vegetables to a tailor and get clothes stitched.

Barter was useful, but it was not always easy. Both people had to want what the other person was offering. They also had to agree that the goods or services had the same value. Because of these difficulties, people began using money. Money lets us measure and compare the value of goods and services. This makes buying and selling easier.



Have you ever stood beside an adult at a shop and watched a payment being made? Perhaps the customer gave the shopkeeper cash. Perhaps a card was used. Or perhaps the shopkeeper showed a square QR code, which the customer scanned with a phone.



Before buying something, always ask yourself: Do I need it? Can I borrow, share, repair or reuse it instead? These choices can save money, reduce waste and help other people.

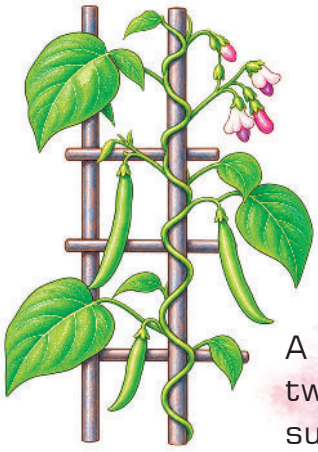
Income, expenditure, saving, budget

The money a person, family or group has is usually limited. They must decide what to spend now and what to keep for later.

Income is the money that a person, family or group gets from a salary, a business, pocket money or some other source. Expenditure is the money spent on buying goods and services. Saving is the money kept aside for an emergency or a future goal. Budget is a plan showing how the available money will be spent and how much of it will be saved.

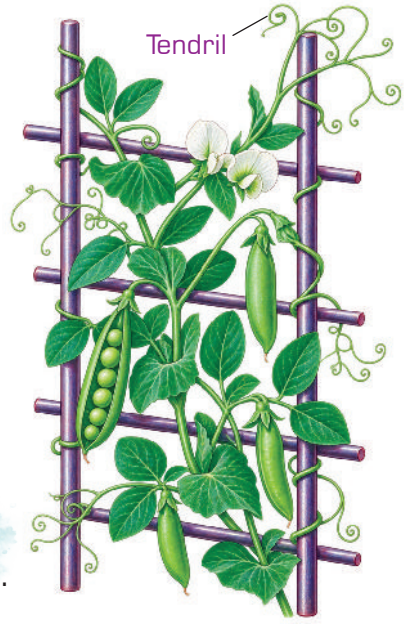
Some expenditure is on needs, such as food, medicines, school supplies and tools needed for work. Needs are things that are necessary for staying alive or for doing important work. Some money may also be spent on wants, such as toys, storybooks or a treat. Wants are





Climbing The stem of a climbing plant twines around a support or bears tendrils to help the plant climb. A tendril is a thin curly branch or leaf.

A bean plant's stem twines around a support.



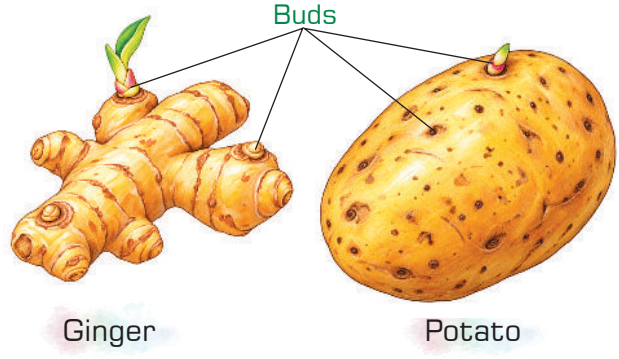
A pea plant has tendrils that curl around a support.

Protecting Some stems, like the stem of a lemon plant, bear thorns that stop animals from eating the plant.

Growing new plants New plants can grow from the buds on some stems, like potato and ginger.



Stems have buds but roots do not. We know that a potato or a ginger is a stem and not a root because it has buds.



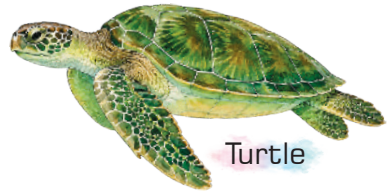
The leaves

The main job of the leaves is to make food for the plant.

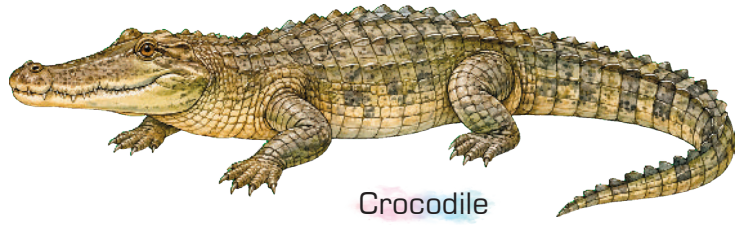
- Green leaves use sunlight, air and water to make food for the plant. Air enters and goes out through tiny pores (openings) on the leaves. The water comes from the root.

We will do more on food making at the end of the chapter.

Seals and walruses use flippers to swim and have a thick layer of fat to keep warm.


Turtle

Turtles use webbed feet or flippers to swim. Their shell helps protect their body.


Crocodile

Crocodiles use their powerful tail to push them through water, while their partly webbed hind feet help them swim. Their eyes and nostrils are near the top of the head. This allows them to see and breathe while most of the body remains under water. Strong jaws and sharp teeth help them catch and hold food.



Learn how to fold paper animals.


Toad


Frog

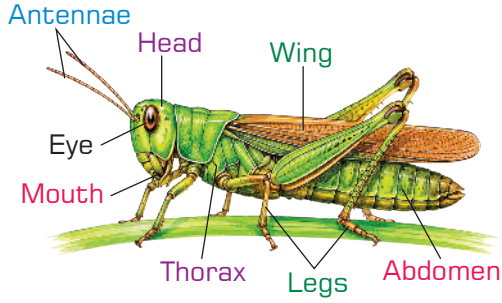
Frogs and toads can live in water and on land. Both begin life in water as tadpoles. Frogs and toads return to water to lay eggs. Adult frogs often have webbed hind feet and swim well. Adult toads usually spend more time on land. Both have strong hind legs to help them jump.

The World of Insects

Ants, butterflies, beetles, grasshoppers, houseflies and mosquitoes may look very different, but they all belong to the group called insects.

How can we recognise an insect?

- An insect's body is divided into three parts—the head, thorax and abdomen.
- It has three pairs of jointed legs (six legs in all), which are attached to the thorax.
- It has one pair of antennae (feelers) on its head. The antennae help it sense its surroundings.
- Many insects have wings, while some do not. The wings, when present, are attached to the thorax too.





Spiders, centipedes, millipedes and earthworms are small animals, but they are not insects. A spider has eight legs. Millipedes and centipedes have many body segments and many legs. An earthworm has no legs.





Exercises

A. Fill in the blanks.

1. Animals that eat plants or plant parts are called _____.
2. An insect's body is divided into the head, _____ and abdomen.
3. The sharp, curved claws of an eagle are called _____.
4. A fish uses its _____ and tail to swim.
5. Several connected food chains form a food _____.



B. Choose the correct option(s). More than one may be correct.

1. Which of these animals is an omnivore?
   a. deer b. crow c. tiger d. elephant
2. Which bird has a long, slender beak that helps it reach nectar?
   a. sunbird b. duck c. eagle d. egret
3. Which of these is not an insect?
   a. beetle b. spider c. ant d. centipede
4. Which of these animals have webbed feet?
   a. parrot b. seal c. duck d. frog
5. Which animal helps flowers by carrying pollen?
   a. butterfly b. snake c. rabbit d. fish

C. Write T for true and F for false.

1. All insects have wings. ☐
2. Animals that fly spend all their lives in the air. ☐
3. Seals and walruses use flippers to swim. ☐
4. Food-chain arrows point from the food towards its eaters. ☐
5. A carnivore only eats plants and plant matter. ☐

Remember

- Nature gives us many useful things.
- Plants give us fibres, wood, bamboo, cane, paper, rubber, medicines, dyes and many other useful things.
- Honeybees make honey from nectar collected from flowers.
- Forest communities depend upon forests for their lives.
- Nature's gifts must be used carefully so that they stay available to us in future.
- Natural materials are used in many arts and crafts.
- Many of our festivals are linked with nature. Some of them spread awareness about wild animals and plants and the need to protect their homes.



Exercises

A. Fill in the blanks.



1. We get coir from the _____ of coconuts.
2. Natural _____ is made from the latex of some trees.
3. Jute fibre comes mainly from the _____ of the jute plant.
4. Bees make _____ from the nectar of flowers.
5. A sacred grove is a patch of _____ protected by a community.

B. Choose the correct option(s). More than one may be correct.

1. Which of these plants give us useful fibres?
   a. cotton b. mango c. coconut d. flax
2. Which of these may be used to make furniture and baskets?
   a. jute b. cotton c. cane d. bamboo
3. Natural yellow colour can be made from
   a. marigold flower b. beetroot c. spinach d. turmeric
4. Which of these plants are used in traditional medicines?
   a. neem b. tulsi c. mint d. aloe vera

8

How Things Work

We see spinning things every day. A ceiling fan turns around its centre, the wheels of a bicycle turn as the bicycle moves forward and a top whirls on a tiny point. Yet, different objects do not spin in exactly the same way. Some turn smoothly for a while, while others quickly tilt, wobble (move unsteadily) or stop.

Things that Spin

When you spin an object, its shape, the way its weight is spread and the way you start it can affect what happens.



Let's Do Choose a few things such as a pencil, coin, bangle, wooden top, eraser and bottle cap. First, guess how each of them will move when spun. Then spin the object gently on a flat surface and watch closely. Fill in the table, as shown for the coin. Make sure you spin each object in a similar manner.

Object	My guess	What actually happened
Coin	*I think it will spin.*	*It spun for some time, then began to wobble and finally fell.*
Bangle		
Bottle cap		
Pencil		
Eraser		
Wooden top		

As some spinning objects slow down, they become less steady. They may begin to lean and wobble before they finally stop.

The same object may not behave exactly the same way every time. A stronger push, a slight tilt or a rougher part of the surface can change the result.

Why does a spinning object slow down?

While a spinning object (spinner) turns, its tip or edge rubs against the surface. The moving spinner also pushes against the air around it. These effects gradually slow it down. A fast-spinning top often stays almost upright, but tends to tip as it loses speed. It may lean, wobble and finally fall.

Wooden spinning tops have been popular toys in India for many generations. A string is wound tightly around the top. The top is thrown towards the ground while the string is pulled back quickly, making it spin on its pointed tip. Children may compete to see whose top spins the longest. Spinning tops have different names in different parts of India. What is a spinning top called in your mother tongue?



Lattu

The axis of a spinner

A spinner turns around an imaginary line called its axis. In round objects, the axis usually passes through the centre.

Let's Do Let us make a card spinner. You will need a thick card, a pencil, a ruler, a toothpick or short wooden stick and a little glue.

1.



Cut or use a circular piece of card. Use a ruler to help mark its centre.

2.



Ask a teacher or any other grown-up to help you make a small hole at the mark.

3.



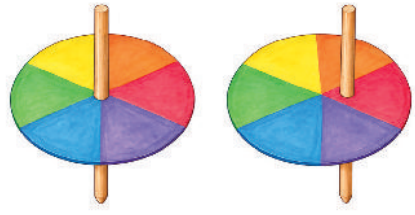
Push the stick through the hole and make sure that the card sits level. If needed, use a little glue to hold the card firmly in place.

4.



Spin the spinner on a smooth, flat surface and watch how steadily it turns.

Once your spinner works, change just one feature and test it again. You could move the stick away from the centre, change the length of the stick below the card, use a larger card or try another shape. A spinner may not work well on the first try. Straightening the stick, adjusting the card or moving the axis can make a difference.



If several things are changed together, you will not know which change has caused the difference. Keeping everything else the same makes the comparison fairer.

Handle the toothpick carefully. Do not point it towards yourself or anyone else.

Thematic maps These maps give information on one topic, such as rainfall, population or roads.

Let's Do What kind of map would you use?

- To find a highway

  _____

- To know which countries share a border with ours

  _____

- To study mountains and rivers

  _____

- To know which parts of the world are wet or dry

  _____



Globe

A globe is a small model of the earth. It is shaped like a ball, just as the earth is.

It helps us see where large landmasses and water bodies lie in relation to one another.

A globe shows the earth as a whole. Because the whole of the earth has to fit on it, a globe is too small to show every small road, town or local detail.



Map or globe?

Maps and globes both help us study places, but they are different in many ways.

Feature	Map	Globe
Shape	flat	round like the earth
Area shown	can show the whole world or a part of it	always shows the earth as a whole
Details	a map of a small area can show many details	shows fewer details because it shows the whole world
Carrying	can be folded, printed in books or used on digital devices	not easy to carry around

12 How the Land Shapes Life

The surface of the earth is not the same everywhere. Some parts of it are high, some are low, some are flat, and some have ups and downs. The different natural shapes of land are called landforms. Mountains, plains and plateaus are types of landforms.

There are water bodies too, like seas, lakes and rivers, on the earth's surface. A coast is a place where the land meets the sea. An island is a piece of land surrounded by water.

A desert is a place that has very little water. Deserts are dry because they get very little rain.

Landforms affect the climate, plants and animals found in a place. This in turn shapes many things in our lives, like houses, clothes, crops, food, travel and even local crafts and festivals.

Let's Do The pictures show different kinds of land. Can you match each one with its name? One has been matched for you.







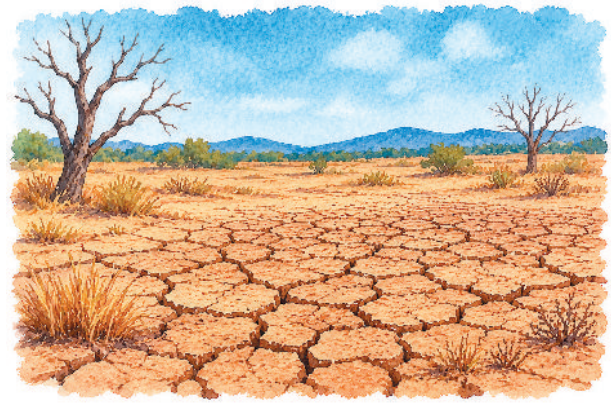
plain **desert** **mountain** **plateau** **island** **coast**











Earthquake During an earthquake, the ground shakes. Earthquakes happen in many parts of India, but they happen more often in some regions.

Drought If a place gets very little rain for a long time, there may not be enough water for people, animals and crops.

Stay prepared

- Listen to warnings from responsible people and local authorities.
- Move to a safe place when told to do so.
- Keep drinking water, dry food, medicines, a torch and some clothes packed in a bag. If there is a warning, just pick up the bag and leave at once.
- During an earthquake, keep away from glass windows. If you are indoors, crouch under a strong table if possible and protect your head. Do not use lifts.
- Do not go near floodwater, fallen wires, broken ground or damaged buildings.

Let's Do Think and discuss with your classmates.

1. Do you think early warnings can save lives from natural dangers? Why or why not?
2. A family living on a coast hears a cyclone warning. What is the safest choice? Tick to show.
   - Go to the beach
   - Ignore the warning
   - Follow safety instructions
3. Think how being prepared to leave home can help a family during a flood or cyclone.
4. A family lives in a dry region. Which of these things should they do?
   - Store rainwater in a covered tank and use this water carefully
   - Grow hardy crops that need little water
   - Repair leaks quickly

Pottery

People learnt to make pots, dishes and bowls from clay. Such clay objects are called pottery.



At first, people probably shaped pots by hand. They dried the pots in the sun. Later, they found that baking clay pots in a fire made them harder and stronger.

Clay pots were useful for storing things like food, water and milk. Food could also be cooked in pots.

Let's Do Take a small ball of playdough and press it flat. Roll another lump of dough into a long 'rope'. Coil it round and round over the flat piece. Press them gently together. Have you got a pot? Early humans might have made pots this way.



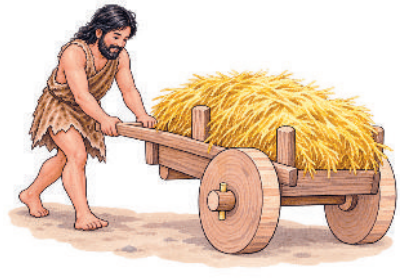
The Wheel

People noticed that logs and round stones could roll. They found that heavy things were easier to move on rollers made of logs or on a sledge placed on logs. Later, people learnt to make wheels and fix them to carts. The carts could travel more easily. They helped carry people and heavy loads.









Let's Do Take a thick book and three round pencils on a table. Place the pencils under the book. Push the book gently. The book moves forward. Now, place the book on the table without the pencils and push it forward. Which is the easier way to move the book?



