



### Get Set, Go!

Who are we? Unscramble our names.

1. I am the earth's surface. I am formed by the breaking up of rocks.  
SOIL (L O I S)
2. I am found in deserts. SAND (A N D S)
3. Potters use me to make pots and toys. CLAY (C A L Y)

### SOIL FORMATION

The earth is a beautiful place to live.  
There are hills and plains, deserts and  
rivers, dry land and seas on earth.  
A variety of animals live here.  
Different types of plants grow on it.

The earth was not always like this.  
In the beginning there was no life on

*The earth*  
earth. It was covered with hard rocks.  
The sun heated up the rocks. The rain  
cooled them and the wind blew over  
them. This continued for many, many  
years. As a result, the rocks broke up  
into small pieces. These small pieces  
broke further into smaller pieces. They  
were carried around by wind and water.



... against each other  
... particles of soil.  
... in, rain and  
... ks to make soil.  
... ars for this to

... l from the  
... a garden or a  
... e sample may  
... er may be dark  
... ird may be of  
... erent kinds  
... colours.

... ample with a  
... will see that  
... ave particles of

## CONTAIN?

... rden. Put it into  
... with water. Cover  
... ell. Allow this to

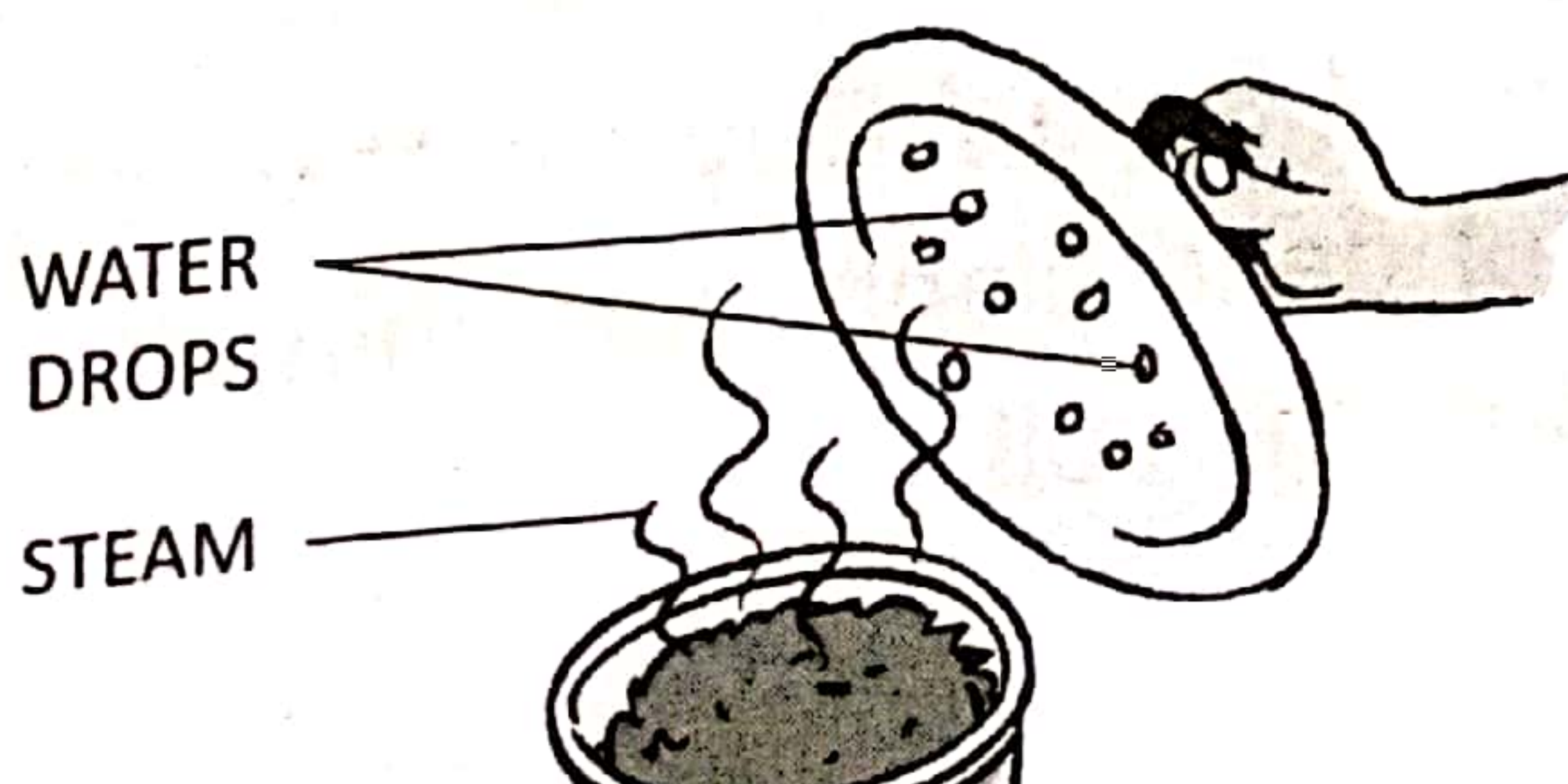
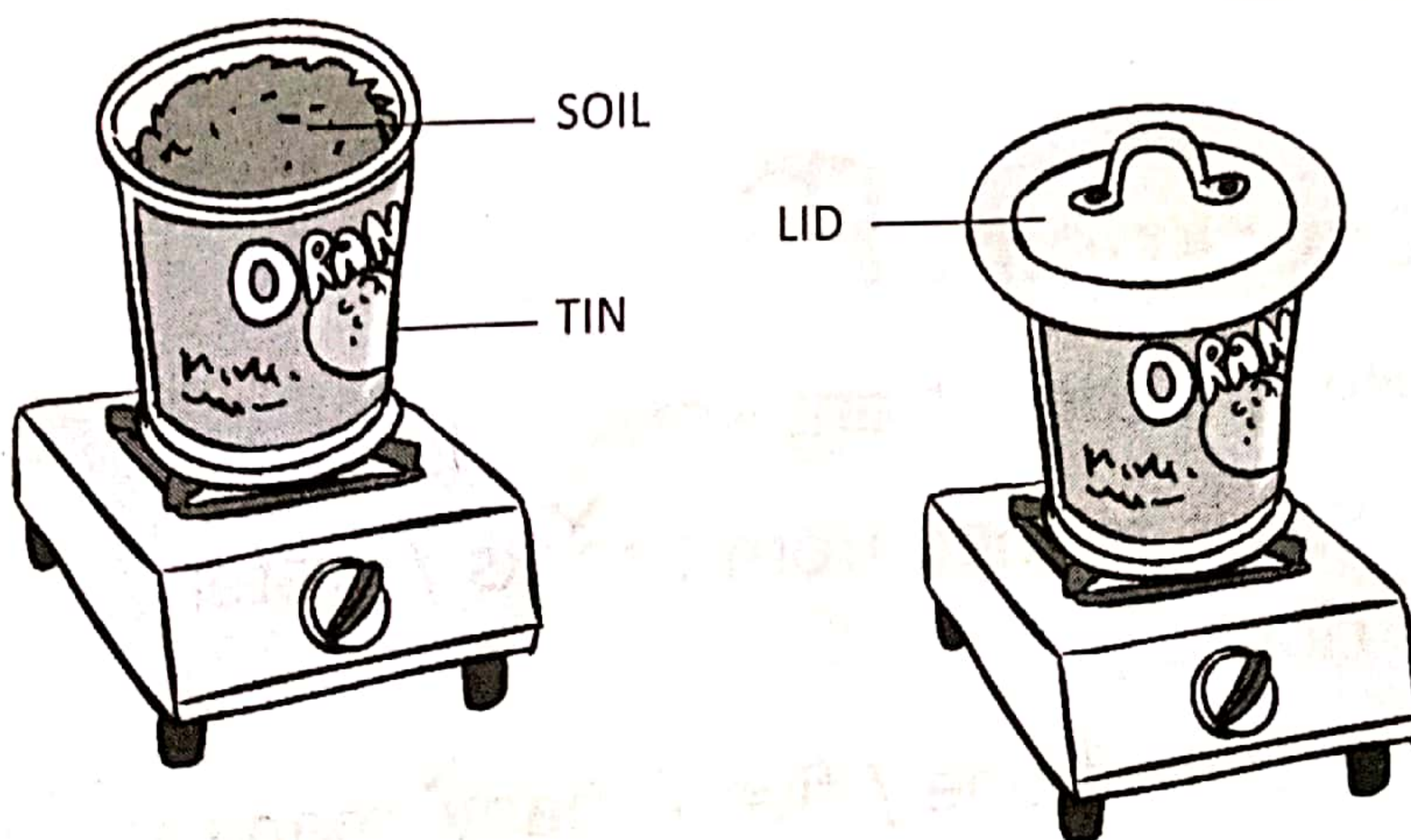
HUMUS

Now look at the jar carefully. The stones settle down at the bottom. The grains of sand are seen above the stones. The clay settles down above the sand. The water at the top is not very clear.

Rotten parts of dead plants and insects (animals) float on top. This is called humus. This activity shows that soil contains, humus, clay, sand and stones

## EXPERIMENT 2

Put some soil in a small tin. Cover it with a lid. With the help of an adult, heat the tin on a low flame. Open the lid. What do you see on the inside of the lid? Drops of water. This proves that soil has water in it.



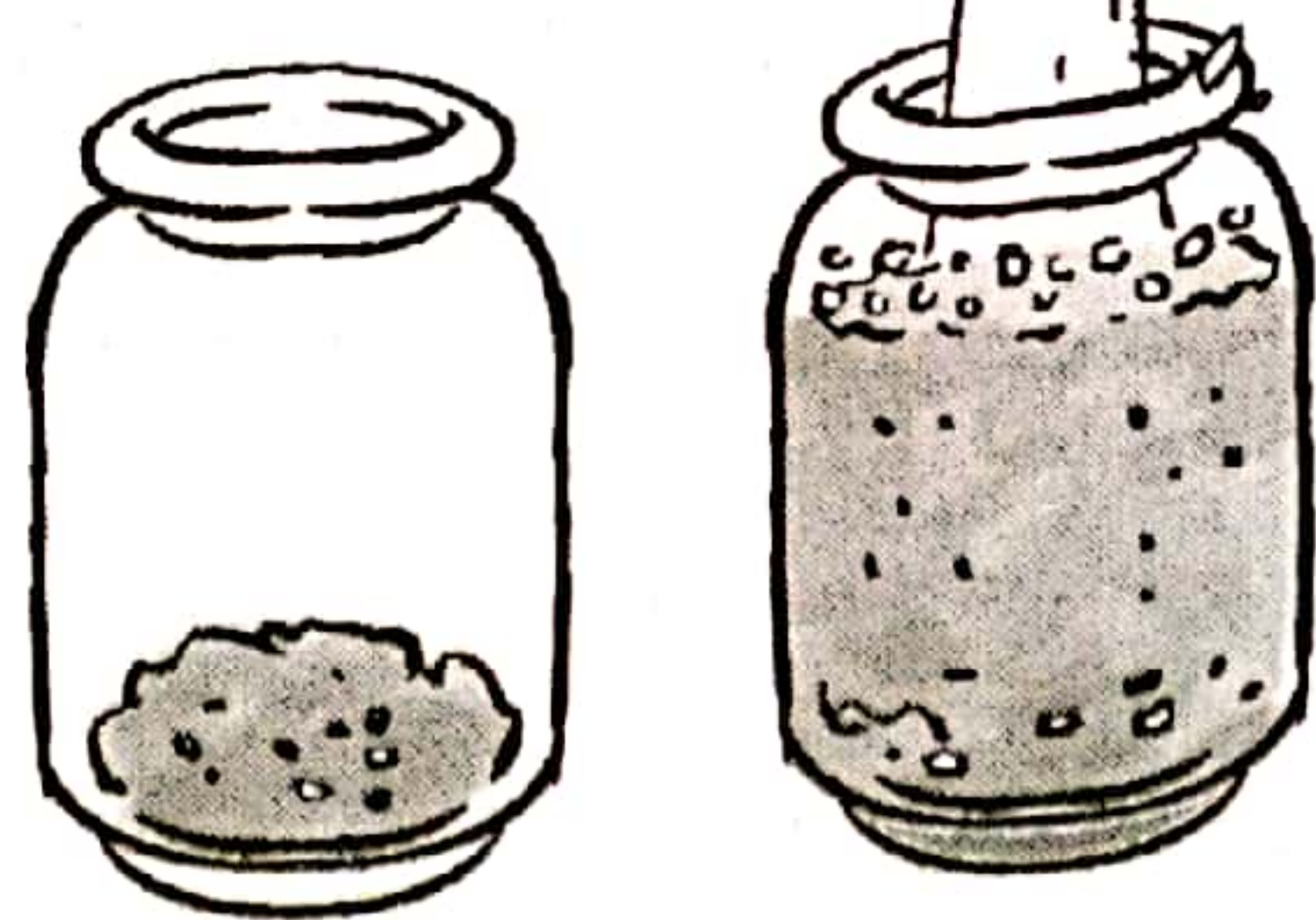


Fig. 3.4 Soil contains air.

Repeat these activities with different types of soil. You will find that some contain more water while some contain more air.

### Checkpoint



Circle the correct answers.

1. Soil is formed from ( rocks / water / clouds ).
2. It takes ( one / five / many, many ) years for soil to be formed.
3. ( Humus / Sand / Clay ) is the rotten parts of dead plants and animals found in the soil.

## TYPES OF SOIL

Sandy soil, clayey soil and loam are the three types of soil.

Sandy soil is mostly found in the desert and on the seashore. Sand particles are big. There is a lot of air



Fig. 3

Loam is a mixture of sand and clay. It holds both water and air. It has a lot of humus. Loam is the best soil for growing plants because it has humus. Humus

### FactW

Soil is home to many beetles and worms. Some small animals and earthworms

- Soil contains stones, sand, clay and humus.
- The three kinds of soil are sandy soil, clayey soil and loam.
- The dead parts of plants and animals, called humus, make the soil rich and fertile.
- When farmers add manure to the soil, the amount of humus in the soil increases.

## Read and Answer



**A** Tick (✓) the correct answers.

1. Their action broke up the rocks to make soil.

a. sun and rain \_\_\_\_\_

b. rain and wind \_\_\_\_\_

c. sun, rain and wind

2. This soil is sticky and mostly used for making pots and toys.

a. sandy soil \_\_\_\_\_

b. clayey soil

c. loam \_\_\_\_\_

3. This soil is best for plants.

a. sandy \_\_\_\_\_

b. clayey \_\_\_\_\_

c. loam ✓

4. This makes the soil rich and fertile.

a. money \_\_\_\_\_

b. humus ✓

c. heat \_\_\_\_\_

**B** Fill in the blanks.

1. Soil contains sand, clay, humus and stones.

2. Different types of soil are clayey soil, sandy soil and loam.

**C** Answer these questions.

1. How do rocks change to soil?

2. Is the size of the particles same in different types of soil? Explain.

3. How will you show that soil contains air?

4. What are the different kinds of soil?

5. Why do farmers add manure to the soil?

**D** Think and answer.

1. Deepak is a farmer. He wants to grow wheat. What kind of soil would he need?

2. Sushil is a potter. What kind of soil would he use for making pots? Why?

HOTS



## Do and Learn

### Experiment

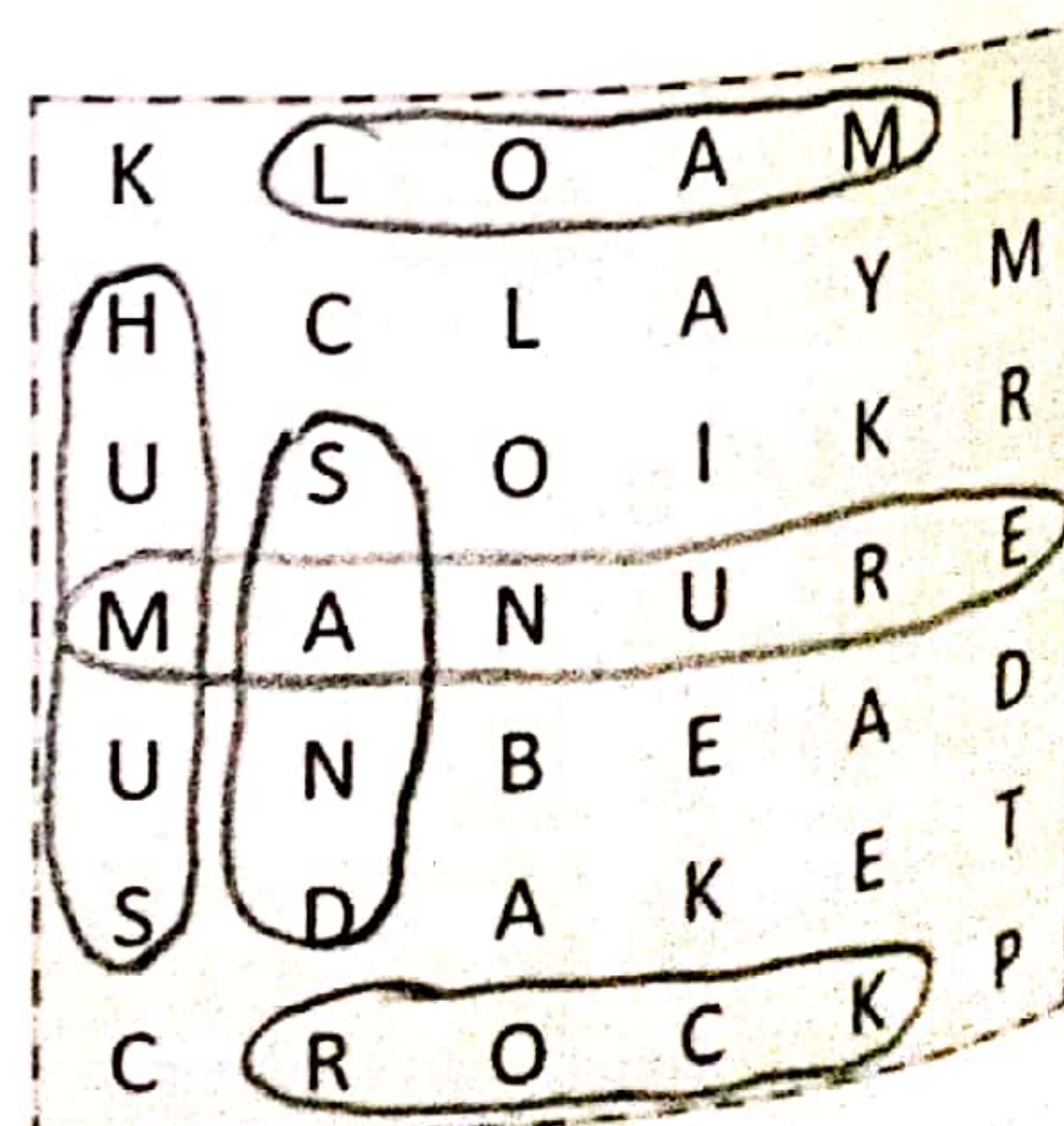
**E** Grow gram seeds.

Fill a tray with soil. Water the soil slightly. Plant a few gram seeds (soaked earlier) in the tray. Watch the seeds every day for a week. Remember to keep the soil moist. Observe the changes during the week.

### Activity

**F** Find six words related to soil in the wordsearch.

Sand, Humus, Manure, Rock  
Loam



Discuss with your partner.  
 Harsh and Mary went to a nearby village and asked a farmer some questions.  
 Fill in the blanks to complete the answers given by the farmer.



## Life Skills

Reuse old cardboard cartons to make a dustbin for your room. Paste coloured paper or newspaper around the carton to cover it. Paint pretty designs on it. Keep it under your study table.

## Values

Your father wants to make a kitchen garden. He gets some clayey soil. Which of the following would you suggest to him? Tick (✓) your answer.

- Add some sand and manure to the soil.
- Not to grow a garden.
- Do not bother to have a look.