SCIENCE

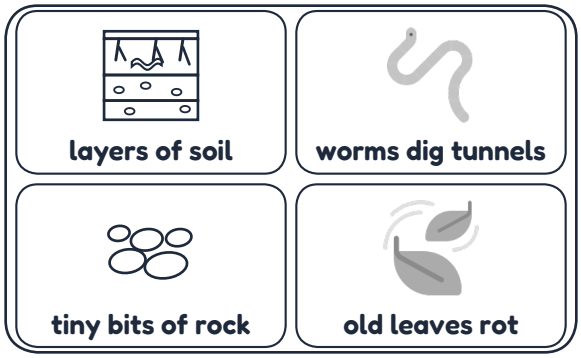
What is soil?

Name _____ Date _____

I can tell what soil is made of.

1 How it works

Soil is the top layer of the ground. It is a mix of tiny bits of rock, bits of old plants and animals, water and air. Worms and bugs dig tunnels that let air and water in. Plants grow their roots in soil, and soil holds the water they drink.



2 Is it part of soil? Circle yes or no.


a toy car
yes no


water
yes no


a sock
yes no


air
yes no


old leaves
yes no


a cookie
yes no


tiny rocks
yes no


a phone
yes no

How did I do? ☆ ☆ ☆

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Soil helpers

Name _____ Date _____

I can tell how living things help soil.

1 Who helps the soil? Draw a line.

 **worms**	hold the soil in place
 **mushrooms**	turn dead leaves into soil
 **plant roots**	soaks in and wets the soil
 **rain**	dig tunnels that let in air and water

2 Fill in the blanks

Use the words in the box.

tunnels **rock** **water** **roots**

1. Soil is made of tiny bits of _____.
2. Worms dig _____ in the soil.
3. Plant _____ grow down into the soil.
4. Soil holds _____ for plants.

How did I do? ☆ ☆ ☆

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Think like a scientist

Name _____ Date _____

I can explain why soil matters to living things.

1 Think about it

1. Why do worms help plants? _____
2. Where does soil come from? _____
3. Why do plants need soil? _____
4. What would soil be like with no worms? _____

2 True or false? Circle it.

1. Soil has tiny bits of rock in it.	true	false
2. Old leaves can turn into soil.	true	false
3. Soil has air and water in it.	true	false
4. Worms make soil worse.	true	false
5. Soil is just sand.	true	false

3 Draw the soil under the ground. Add roots, a worm and rocks.

How did I do? ☆ ☆ ☆

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Try it: soil in a jar

Name _____ Date _____

I can find out what soil is made of.

1 You need

- a clear jar with a lid
- soil from outside
- water
- a spoon
- a magnifier

2 What to do

1. Fill the jar one third of the way with soil.
2. Add water until the jar is almost full. Put the lid on tight.
3. Shake the jar for one minute, then set it down.
4. Look again in 1 hour and in 1 day. Draw what you see.

3 I predict

What will the jar look like after one day?

_____

_____

4 What I see

Time	Draw it	What I see
right away		
1 hour		
1 day		

How did I do? ☆ ☆ ☆

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FOR TEACHERS AND PARENTS

Answer key: what is soil?

1 Page 1

Answers: 1) a toy car: no; 2) water: yes; 3) a sock: no; 4) air: yes; 5) old leaves: yes; 6) a cookie: no; 7) tiny rocks: yes; 8) a phone: no.

2 Page 2

Helpers: 1) worms: dig tunnels that let in air and water; 2) mushrooms: turn dead leaves into soil; 3) plant roots: hold the soil in place; 4) rain: soaks in and wets the soil.

Blanks: 1) rock; 2) tunnels; 3) roots; 4) water.

3 Page 3

Think: 1) Their tunnels let air and water reach the roots; 2) Broken-down rocks and rotted plants and animals; 3) It holds them up and holds water; 4) Hard and packed, with less air.

True or false: 1) true; 2) true; 3) true; 4) false; 5) false.

Drawing: answers will vary. Look for roots, a worm tunnel and small rocks in the soil.

4 Page 4: Try it!

Right away the water is brown and muddy. After an hour the heaviest bits, small stones and sand, have sunk to the bottom. After a day there are layers: stones and sand at the bottom, finer silt and clay above, then cloudy or clear water, with bits of old plants floating on top. Soil is a mix of many things.

5 Teaching tip

Spread a cup of soil on white paper and let children sort it with a craft stick into rocks, plant bits and anything alive.

Safety: a grown-up handles the glass jar. Wash hands after touching soil.

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