SCIENCE

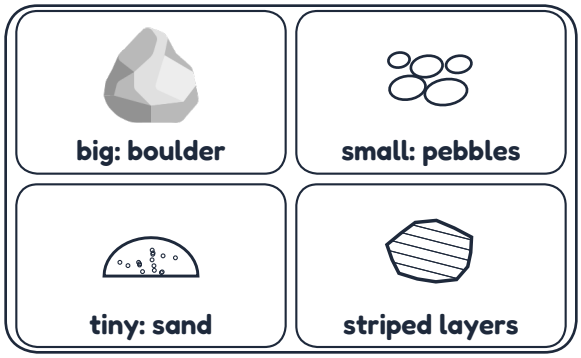
# All about rocks

Name _____ Date _____

I can sort rocks by how they look and feel.

## 1 How it works

Rocks are hard, natural things that come from the earth. No two rocks are exactly alike. Scientists sort rocks by their properties: size, color, shape, how they feel and how hard they are. Big rocks break into smaller pebbles, and pebbles break into tiny grains of sand.




## 2 Is it a rock? Circle yes or no.



**pebbles**

yes no



**a shell**

yes no



**a log**

yes no



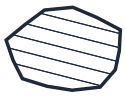
**an ice cube**

yes no



**sand**

yes no



**a striped rock**

yes no



**a boulder**

yes no



**a brick**

yes no

**How did I do?** ☆ ☆ ☆

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# Rock properties

Name _____ Date _____

I can compare rocks by feel and size.

## 1 Rough or smooth? Circle one.

| | | |
|---|---|---|
| A pebble from a river | rough | smooth |
| A rock chipped off a cliff | rough | smooth |
| A stone tumbled by ocean waves | rough | smooth |
| A chunk of broken rock | rough | smooth |
| A flat skipping stone | rough | smooth |

## 2 Which is smaller? Circle it.

| | | |
|---|---|---|
| 1. | a boulder | a pebble |
| 2. | a grain of sand | a pebble |
| 3. | a mountain | a rock |
| 4. | gravel | a boulder |

How did I do? ☆ ☆ ☆

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# Think like a scientist

Name _____ Date _____

**I can explain how rocks are alike and different.**

## 1 Think about it

1. Why is sand so tiny? _____
2. How are a pebble and a boulder alike? _____
3. Why do river pebbles feel smooth? _____
4. How could you sort a pile of rocks? _____

## 2 True or false? Circle it.

| | | |
|---|---|---|
| 1. Water can make rocks smooth. | true | false |
| 2. A boulder is bigger than a pebble. | true | false |
| 3. Sand is made of tiny bits of rock. | true | false |
| 4. All rocks look the same. | true | false |
| 5. A shell is a kind of rock. | true | false |

## 3 Draw your favorite rock. Label its color, size and feel.

**How did I do?** ☆ ☆ ☆

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# Try it: rock detective

Name _____ Date _____

I can describe rocks by their properties.

## 1 You need

- 4 different rocks
- a magnifier
- a cup of water
- a metal spoon
- crayons

## 2 What to do

1. Look at each rock with the magnifier. What colors and specks do you see?
2. Feel each rock. Is it rough or smooth?
3. Dip each rock in the water. Does it look different when wet?
4. Try to scratch each rock with the spoon. Does it leave a mark?

## 3 I predict

Which rock do you think is the hardest?

_____

_____

## 4 What I see

| Rock | Color and feel | Hard or soft? |
|---|---|---|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |

**How did I do?** ☆ ☆ ☆

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FOR TEACHERS AND PARENTS

# Answer key: all about rocks

## 1 Page 1

Answers: 1) pebbles: yes; 2) a shell: no; 3) a log: no; 4) an ice cube: no; 5) sand: yes; 6) a striped rock: yes; 7) a boulder: yes; 8) a brick: no.

Sand is rock broken into tiny bits. A shell was made by an animal, a log was a tree, people make bricks, and ice is frozen water.

## 2 Page 2

Feel: 1) smooth; 2) rough; 3) smooth; 4) rough; 5) smooth.

Smaller: 1) a pebble; 2) a grain of sand; 3) a rock; 4) gravel.

## 3 Page 3

Think: 1) It is rock broken into very small bits; 2) Both are rock; 3) Water rubbed their edges away; 4) By size, color, shape or feel.

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

Drawing: answers will vary. Look for labels for color, size and feel, such as gray, small and smooth.

## 4 Page 4: Try it!

Answers will vary with the rocks. Most rocks look darker and show brighter colors and patterns when they are wet. Hard rocks do not scratch, while soft rocks, like chalk or sandstone, may show a scratch or rub off grains. The hardest rock is the one the spoon cannot mark.

## 5 Teaching tip

Give each child one rock to study for the whole lesson. Ask them to describe it so well that a friend could pick it out of the pile.

**Safety: never throw rocks, keep small pebbles away from mouths and wash hands after.**



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