

# MINERALS

Minerals are a naturally occurring substance on Earth. They are not man-made. They are formed within the Earth's mantle, on the Earth's crust, or on the surface of the Earth. Strong heat and pressure help to form minerals in the same way that rocks are formed. They can grow, but they are not a living thing. Each kind of mineral has its own properties that help identify it. Each mineral has its own special color, luster, hardness, and streak.

Minerals are not only found outside on the ground, but can be found in objects you use everyday! Toothpaste contains the mineral fluorite. Baby powder contains the softest mineral, talc. Inside electronics you can find parts made out of the minerals copper, gold, and quartz. The pencil you are using today has graphite in it. You even eat the mineral salt when you season your food!

Fill in the blanks, using the words in the word bank, to complete the sentence.

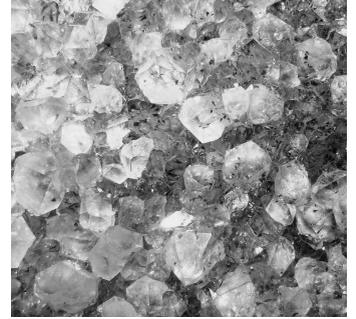
minerals    crust    hardness    graphite    properties

1. Minerals can be found on Earth's mantle, \_\_\_\_\_, or surface.
2. Each mineral has its own special color, luster, \_\_\_\_\_, and streak.
3. The pencil you are using today has \_\_\_\_\_ in it.
4. \_\_\_\_\_ are a naturally occurring substance on Earth.
5. Each mineral has its own \_\_\_\_\_ that help identify it.

# CRYSTALS

Crystals are non-living substances that grow into different shapes. They have atoms that are arranged in a regular pattern. Sometimes crystals are confused with gemstones that are shaped perfectly and are transparent and clear. Most crystals aren't clear or transparent.

Minerals and rocks are made of crystals, and some are snowflakes, salt, and sugar. A crystal is really just another form of a rock or mineral, except the word "crystal" tells us that the rock or mineral is of a certain shape.



Crystals grow larger as the atoms arrange themselves in layers. They can grow from a gas, liquid, or a solid. Temperature, pressure, chemical conditions, and the amount of space all affect the growth.

The shape of crystals is called their "habit." The habit of crystals is used to identify them. As crystals grow, some faces develop more than others.

Fill in the blanks to complete the sentences.

1. Name three things that crystals can grow from \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.
2. What four things can affect the growth of crystals?  
\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_
3. What is a common confusion people have about crystals?  
\_\_\_\_\_
4. When someone refers to a crystal's "habit." what is he/she referring to?  
\_\_\_\_\_

# let's learn about **FUN MINERAL FACTS**

Use the Read the Room information to sort the facts under the different Minerals.

## **FLUORITE**


## **COPPER**


## **PYRITE**


## **GYPSUM**


# let's learn about **FUN MINERAL FACTS**

Use the Read the Room information to sort the facts under the different Minerals.

## **QUARTZ**


## **CALCITE**

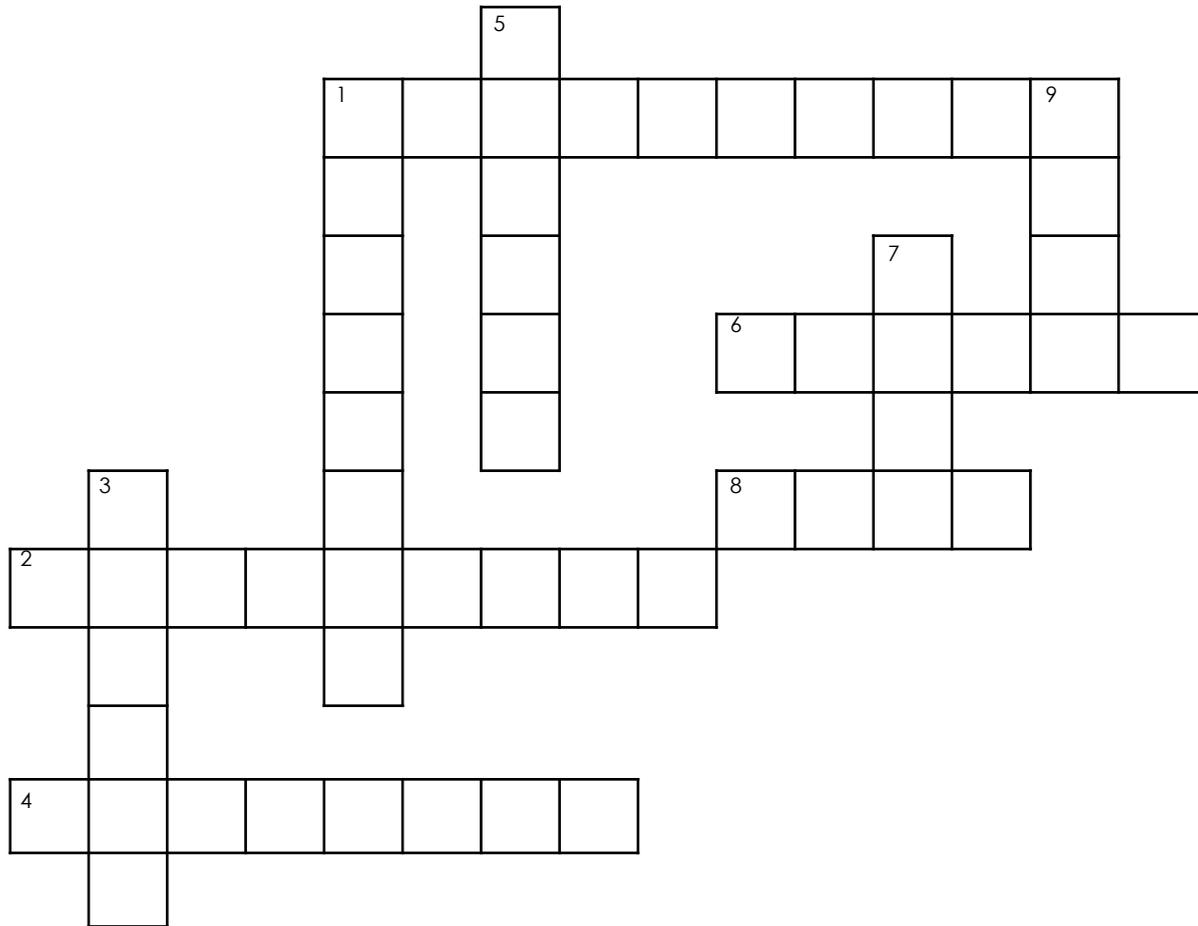

## **MAGNETITE**


## **MICA**


# let's learn about **MINERALS**

Name: \_\_\_\_\_

**Complete the crossword puzzle using the clues below:**



## **Across**

## **Down**

- |  |   |
|--|---|
| <p>1. Each kind of mineral has its own _____.</p> <p>2. Minerals occur _____ on Earth.</p> <p>4. Toothpaste contains the mineral _____.</p> <p>6. _____ is the most abundant mineral.</p> <p>8. _____ is used for sparkles in cosmetics.</p> | <p>1. Strong heat and _____ help to form minerals.</p> <p>3. Minerals are formed within the Earth's _____.</p> <p>5. _____ is used to make pots.</p> <p>7. The softest mineral is _____.</p> <p>9. You can eat the mineral _____ when you season your food.</p> |
|--|---|

# let's learn about **CRYSTALS**

Name: \_\_\_\_\_

True or False? If False, correct the sentence.

e.g.	Crystals are living organisms.	<i>false</i>
	<i>They are non-living.</i>	

1	Crystal atoms are arranged in an irregular pattern.	

2	Crystals are a form of rock and mineral.	

3	Crystals always stay the same size.	

4	Crystals only grow on plants.	

5	"Habit" refers to the place where the crystal grows.	

6	Temperature does not affect how a crystal grows.	

7	A snowflake is an example of a crystal.	

# let's learn about CRYSTALS

Name: \_\_\_\_\_

Find 10 words in the wordsearch. Write them on the lines provided.

T	F	Y	I	S	H	A	P	E	S
E	F	F	F	P	R	G	R	C	N
M	I	N	E	R	A	L	S	R	O
P	D	S	H	E	G	A	T	Y	W
E	U	H	I	S	J	Y	S	S	F
R	O	C	K	S	K	E	Z	T	L
A	I	G	S	U	J	R	D	A	A
T	K	K	J	R	N	S	T	L	K
U	F	M	I	E	S	E	H	S	E
R	Z	U	Y	G	A	T	O	M	S
E	V	H	A	B	I	T	K	U	R

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Write a sentence using each of the words you found.

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

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