Discovering Rocks, Minerals, and Crystals

## Terms to Be Familiar With

At the bottom of the page is a word bank of terms you will see and hear often as you study rocks, minerals, and crystals. Fill in the letters where necessary to complete the puzzle.


| diorite | minerals | granite |
| :--- | :--- | :--- |
| metamorphic | felsite | magma |
| igneous | shale | basalt |
| limestone | sedimentary | conglomerate |
| sandstone | dolomite |  |
|  |  |  |

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## Match the Terms and Definitions

Match each term with its definition.
$\qquad$ minerals
granite
conglomerate
magma
igneous
sandstone
metamorphic
$\qquad$ sedimentary
e. rocks formed from magma
f. the most common igneous rock; can be any color
from light grey to pink; can be black if it includes mica
f. the most common igneous rock; can be any color
from light grey to pink; can be black if it includes mica
g. a sedimentary rock; made up of different types of materials cemented together with something like
a. molten rock beneath the earth's surface
b. one of the most common types of sedimentary rock; made up of grains of sand or quartz cemented together
c. can be formed in several ways, such as when water, wind, or ice carry away small pieces of rocks, from decayed plants and animals, or from minerals that settle out of a liquid like water
d. formed when heat, pressure, or chemicals interact with igneous rocks or sedimentary rocks sand and clay; does not break apart cleanly
h. occur in nature and are not living; each has a different arrangement of atoms; usually found in the form of crystals

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## Rocks, Minerals, and Crystals Tile Game

Imagine you are playing a tile game. You are given the definition of a word. After the definition, there is a line to write the word on when you decode it. Then you are told how many letters are in the word and if it is one or two words. With all of this information, look at the fifteen tiles you have "drawn" to find the word that fits the definition. The tiles are mixed up, so you must unscramble the letters, crossing out the ones you don't need, to find the word that fits the definition.

1. An igneous rock made of feldspar and quartz crystals; usually white or light gray, though it can also be red or tan
(7 letters) (1 word)

| $s$ | $r$ | $w$ | $f$ | $x$ | $i$ | $a$ | $y$ | $e$ | $u$ | $t$ | $o$ | $p$ | I | $e$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

2. A very popular and common gemstone; usually sky-blue, blue-green, or yellow-green; a softer stone; one of the birthstones for December

| $r$ | $f$ | $u$ | l | s | u | c | d | o | a | t | x | i | q | e |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

3. A very dense igneous rock that is formed from heavy flows of dark lava; colors are dark green to black
(6 letters) (1 word)

| $f$ | $a$ | $h$ | $x$ | $t$ | $g$ | $s$ | $r$ | $w$ | $b$ | $m$ | $d$ | $l$ | $f$ | $a$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

## Discovering Rocks, Minerals, and Crystals

## Major Elements in the Minerals of Rocks

Decode the names of the major elements in the minerals you find in rocks. Follow the directions for finding each letter. For example, if the directions say Across 4, Down 3, (A4-D3), follow the Down row 3 over to Across column 4 and find the letter $e$. In the instructions, we will use A for Across and D for Down.

|  |  | Across |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 | 2 | 3 | 4 | 5 |
| D | 1 | j | d | i | w | z |
|  | 2 | u | 1 | n | Y | p |
| 0 | 3 | k | x | 0 | e | m |
| w | 4 | t | V | h | C |  |
| n | 5 | g | a | f | b | 5 |

1. $\qquad$
2. 


3.

4.

5. $\qquad$
6. $\qquad$
7. $\qquad$
8.

