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

# MineralS and THEIR Properties

If any of the following statements is a characteristic of a mineral, place a tick beside it. **If it is not, leave it blank**.

1. \_\_\_\_\_\_\_\_\_\_Made of one or more elements on the periodic table
2. \_\_\_\_\_\_\_\_\_\_Is formed by years of compression under the earth’s crust
3. \_\_\_\_\_\_\_\_\_\_Is formed by cooling after a volcanic eruption
4. \_\_\_\_\_\_\_\_\_\_Is a solid
5. \_\_\_\_\_\_\_\_\_\_Has a unique crystalline shape
6. \_\_\_\_\_\_\_\_\_\_Can be melted easily with a simple campfire
7. \_\_\_\_\_\_\_\_\_\_Has lustre, a hardness number and specific density
8. \_\_\_\_\_\_\_\_\_\_Is usually found on the coastal areas of the United States

We use different tests to identify a mineral. **Match** each test with its name.

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| 1. Moh’s Scale | 1. Relative heaviness of a mineral |
| 1. Crystalline Structure | 1. Colour it leaves when scratched on porcelain |
| 1. Specific Gravity | 1. How easily it scratches other materials or it’s hardness |
| 1. Streak | 1. Shape as it grows |
| 1. Lustre | 1. Breaks along a plane/line |
| 1. Fracture | 1. Appearance |
| 1. Cleavage | 1. Breaks unevenly or shatters |

1. Take the following list of items and give their **hardness** on the Moh’s scale. You may have to use a text book or the internet to find your answers.

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| Diamond\_\_\_\_\_\_ | A nail\_\_\_\_\_\_ | A penny\_\_\_\_\_\_ | Talc\_\_\_\_\_\_ |
| Glass\_\_\_\_\_\_ | Steel\_\_\_\_\_\_ | Amethyst\_\_\_\_\_\_ | Topaz\_\_\_\_\_\_ |

1. **Explain** the rate of change in temperature that determines crystal **size**?

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1. **Describe** 3 common minerals. Include a **property** of each.

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1. **Describe** what is meant by the cleavage of a mineral’s crystal?

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1. What is the **difference** between a rock and a mineral?

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# ROCKS

1. What is a type of rock that is formed from magma?

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1. What does intrusive and extrusive mean? Where can these types of rocks be found and what type of rocks are, they?

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1. What type of rock is formed through weathering, erosion, compaction and cementation?

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1. What happens when the above rock types are exposed to intense heat and pressure? What type of rock is formed?

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1. Describe the two types of metamorphism.

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1. Identify the rocks in the following table as either Igneous, Sedimentary or Metamorphic. Place a I, S or M next to each.

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| GNEISS |  | QUARTZITE |  |
| SANDSTONE |  | CONGLOMERATE |  |
| GABBRO |  | PUMICE |  |
| GRANITE |  | BRECCIA |  |
| OBSIDIAN |  | BASALT |  |
| SLATE |  | LIMESTONE |  |
| MARBLE |  | SCHIST |  |

1. Explain how marble is formed, which rock it is formed from and the process involved in its formation.

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1. Construct a table outlining the different types of sedimentary rocks and their features.

# Weathering and erosion

1. What is weathering?

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1. What are the different types of weathering?

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1. Name four agents of weathering.

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1. What do agents of erosion do to weathered materials?

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1. How is erosion different to weathering?

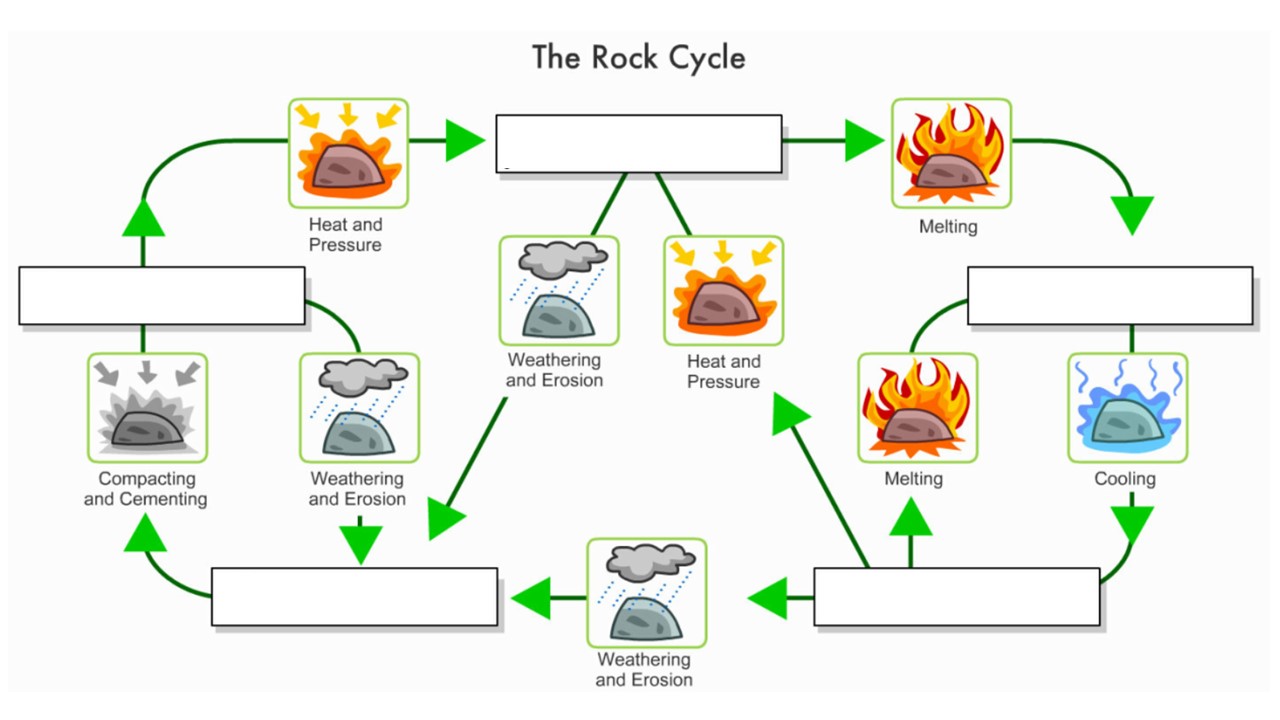
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1. What type of rock formations are facilitated by weathering and erosion?

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# ROCK CYCLE

1. Fill in the following diagram;



The following questions can be answered by referring back to your diagram above.

1. To go from Magma to Igneous we need to

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1. To go from Igneous back to magma we need to

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1. Making Igneous become Sediment requires

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1. To go from Sediment to Sedimentary Rock we need to

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1. To change from Sedimentary rock to Sediment we

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1. Changing from Sedimentary to Metamorphic requires

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1. Making Metamorphic become Sediment requires

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1. Changing from Metamorphic to Magma uses

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1. Changing from Igneous to Metamorphic requires

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