

# One-on-One Let's Rock!

## A Primer on Rocks

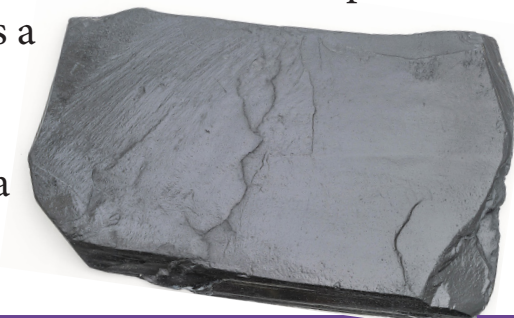
Rocks and minerals are the very foundation of our planet, the Earth's crust is made up of rock. Geology isn't just about rocks though (although rocks are pretty cool). Geology is the study of the earth (*geo* means: earth, and *ology* means: study of).

- *What comes to mind when you think about the science of geology?*
- *Did you ever collect rocks?*

### So, what exactly is a rock?

Rocks are made up of many different kinds of minerals and are generally classified by how they were formed. The three major types of rocks are **Metamorphic, Igneous, and Sedimentary**.

**Metamorphic rocks** are formed by great heat and pressure. *Metamorphic* means: change and these are made from *other types* of rock. For example, shale, which is a sedimentary rock, can be changed into a



slate

metamorphic rock such as slate by heat and pressure.

**Igneous rocks** are formed by volcanoes. When a volcano erupts, it spews out hot molten rock called magma or lava. When magma cools and turns to a solid, it forms igneous rock.

Examples of igneous rocks include basalt, granite and pumice.

A good way to remember

igneous is

that the word igneous comes from the Latin word "*ignis*" which means: fire.



**Sedimentary rocks** are formed by years and years of sediment deposited as layers at the bottom of lakes and oceans, forming



sandstone

sedimentary rocks. Some examples of sedimentary rocks are shale, limestone, and sandstone.

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## Writer's Workshop: Art-Inspired Haiku

**Supply List:** Paper and pencil

A Haiku is an unrhymed poem that has three lines with very specific rules. The first line has **five syllables**, the second line has **seven syllables**, and the third line has **five syllables**. This type of poetry comes from Japan and the topic of the Haiku often relates to nature.

- Begin by viewing the art included in this exercise.
- Brainstorm words related to volcanoes and the art.
- Begin drafting your Haiku, you do not have to use only the words from your list.
- Feel free to draw from your own experiences and the natural world.

**Example Haiku:** On a branch  
floating downriver  
a cricket, singing.

**Artist:** Katsushika Hokusai 1760 - 1849  
Hokusai had a long career, but he produced most of his important work after age 60.



More about the artist - <https://en.wikipedia.org/wiki/Hokusai>

One-on-One  
**Let's Rock!**

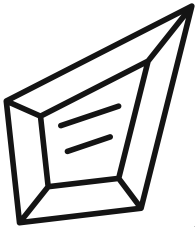
## Point to Ponder: Birthstones

**Supply List:** Good coloring pencils

A birthstone is a gemstone that represents a person's month of birth.

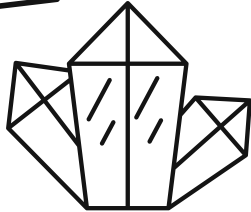
Some feel that birthstones hold therapeutic properties.

Below are some interesting notes about each stone:



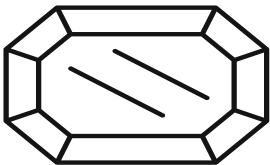
### January - Garnet

Deep red, the garnet is said to promote love. From the Latin word *Garanatus*, meaning seedlike, because the stones look similar to pomegranate seeds.



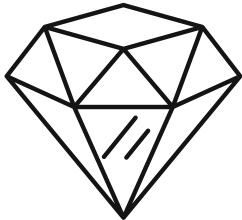
### February - Amethyst

A lovely purple color, an amethyst is thought to promote peace, balance, courage, and inner strength.



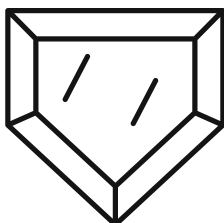
### March - Aquamarine

In Latin, aqua means water and marine means sea. Aquamarine is said to protect sailors and other ocean voyagers, and is the color of the sea.



### April - Diamond

Called adamas by the ancient Greeks, which means invincible and indestructible, this gemstone symbolizes purity and perfection.

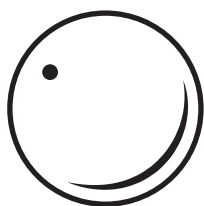


### May - Emerald

Deep green, the emerald is associated with Venus, the Roman goddess of love and beauty. The emerald is said to protect lovers from fighting.

# Point to Ponder: Birthstones

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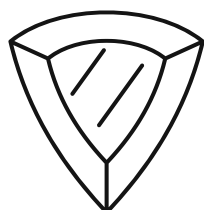
## June - Pearl

The white pearl has long been a symbol of purity. Ancient Greeks believed pearls were the hardened tears of joy from Aphrodite, the goddess of love.



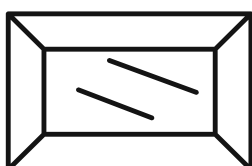
## July - Ruby

For thousands of years, Ruby was considered the stone of energy, passion and power. Brilliant red, the ruby is one of the most valuable birthstones.



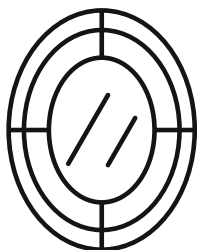
## August - Peridot

Peridot symbolizes strength and is sometimes called the evening emerald for its light green color. Some believed that peridot, found in volcanic ashes were the tears of the volcano goddess, Pele.



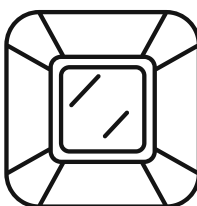
## September - Sapphire

Royal blue, the sapphire is credited as the gemstone of creative expression and inner peace, second only to the diamond in strength.



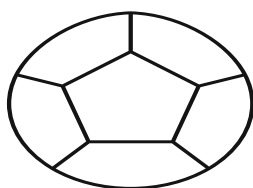
## October - Opal

Derived from the Greek *Opallos*, meaning to see a change of color, opals range in color from white to black, with flashes of yellow, orange, green, red, and blue. Associated with faithfulness and confidence.



## November- Topaz

Among the most powerful of gemstones and often the colour of butterscotch, topaz signifies emotional balance. The word *Topaz* means “fire” in Sanskrit.



## December - Turquoise

Prized for thousands of years owing to its unique blue-to-green hue, it's considered to decrease nervousness, tension, and stress.