Geology

Why Geology? Worksheet

Check your learning

1. Use the table below and the pictures and descriptions on the right to name the following rocks.
   1. I am light in colour with a fine grain. I am considered soft.
   2. I am light in colour with holes in the surface.
   3. I am soft, shiny and dark in colour. I am often used for flooring.
   4. I have mixed grains and my colour can vary.
2. What properties are used to identify different types of rocks?
3. Name two different uses for different types of rocks.
4. Why must properties other than colour be used to identify a rock?
5. What branch of science is the study of rocks?

Apply and analyse

1. Pumice has a density of 0.6. Water has a density of 1. Would you expect the pumice stone to float or sink? Explain your reasoning.

Extend your understanding

1. Who am I? Use table and pictures on the previous page to name the following rocks.
   1. I am dark in colour, am soft and have a fine grain size. Some say I look like black glass.
   2. I have course grain, am soft and light in colour. Sometimes I look pink and other times I look white.
   3. I am fine grained, have larger crystals and am light in colour. I am also very hard, with approximately one and a half times the density of water.

1. Research to determine which rocks you would select for the following purposes.
   1. Bench top
   2. Production of energy
   3. The removal of dead skin
   4. Roof tiles
   5. to produce cement

**How geology affects our lives**

Geology is all around us, from the sand and rock used to build the walls and roads, to the numerous minerals found in everyday life objects and in the food we eat, to the landscape around us and our leisure pursuits​. ​

Complete the following sentences using the words provided

**Energy** (decay, millions, fossil fuels)

The majority of the electricity we use in our homes comes from \_\_\_\_\_\_ \_\_\_\_. Fossil fuels such as coal, oil and gas are formed by the \_\_\_\_\_ of living organisms from \_\_\_\_\_\_\_ of years ago

**Food and Drink** (minerals, affect, soil, subsoil)

The food and drink we eat depends on the \_\_\_\_ it grows in. Soil can contain many different minerals that can \_\_\_\_\_\_ how our food grows. The \_\_\_\_\_\_\_\_ present in the soil are the result of how the soil and \_\_\_\_\_\_\_ formed.

**Fluoride in your toothpaste** (toothpaste, cavities, mineral)

Fluoride is a naturally occurring \_\_\_\_\_\_\_ that is added to \_\_\_\_\_\_\_\_\_\_ to help protect your teeth from \_\_\_\_\_\_\_\_.

**Calcium for your bones and teeth** (bodies, calcium, grass, calcium, dairy)

We know that \_\_\_\_\_\_\_ is necessary for healthy bones and teeth and we know milk and \_\_\_\_\_ products are good sources of it but where does it come from? Calcium is a mineral that can be found in the soil and this means grass contains lots of calcium too. When cows eat the \_\_\_\_\_ the calcium builds up in their \_\_\_\_\_\_ and comes out in their milk.

**Minerals in our smartphones and laptops** (Cobalt, minerals, laptops)

Our smartphones and \_\_\_\_\_\_\_ rely heavily on \_\_\_\_\_\_\_\_ such as Lithium, \_\_\_\_\_\_ and Gold.

**Water** (wells, beneath, rivers or lakes, shower, below)

The water we drink, the water we use to \_\_\_\_\_\_\_ and the water we use to flush our toilets can come from sources above or \_\_\_\_\_ ground. Above ground we can use water from \_\_\_\_\_ \_\_ \_\_\_\_\_ that we can easily see but we can also find water \_\_\_\_\_\_\_ the ground. Water can sink through cracks and holes into rocks, here the water is stored in rock layers known as aquifers. This water can be reached using \_\_\_\_\_.