

Study Guide Nine week assessment Quarter 1

Density is calculated by the following formula $\text{Density} = \text{Mass} / \text{Volume}$

A Foucault pendulum is a model for the rotation of the Earth

The size of mineral grains in an Igneous rock are determined by the rate of cooling. Magma cooling slowly will have large grains lava cooling quickly will have small grains

Energy that is sourced from the heat within Earth is known as Geothermal energy

The steps in the Scientific method are Pose a question, do research, Write your Hypothesis (prediction) conduct your experiment, analyze results, draw conclusions(either prove or disprove hypothesis) communicate results

The characteristics of minerals are Inorganic, naturally occurring, solids, with definite chemical composition and have a crystal structure

In the rock cycle Igneous rocks are created by melting and solidification, Metamorphic rocks are created with extreme heat and pressure without melting and Sedimentary rocks by weathering erosion and deposition or the evaporation of liquids

Quartz is not considered an ore because it is very common. Ores are going to be metals and quartz is a non-metal

Faults and volcanoes are often found at plate boundaries

Conglomerate sediments are rounded indicating weathering in water where breccia sediments are angled as if by a cataclysmic event like an impact crater

We want to conserve fossil fuels because we will eventually run out. This is known as a non-renewable resource

Limestone is an important mineral resource in Virginia because it is used to make concrete

Gemstones are typically high on Moh's hardness scale because of the arrangement of their Atoms

Igneous intrusive rocks cool below the surface and have large crystals.

Examples Granite, Diorite

Igneous extrusive rocks cool on the surface and have small crystals. Examples Basalt, Rhyolite, Obsidian, Pumice

Sedimentary rock forms from compaction, cementation, evaporation, and

sedimentation in water.

Foliated metamorphic rocks are formed from heat and pressure and show banding or layering which is a result of minerals rearranging

Non-foliated metamorphic rocks are formed from heat and pressure and show no layering or banding and appear uniform in color throughout.

The greatest threat from hydroelectric power is the loss of free running rivers and the ecosystems that make up the rivers

An object that has a specific density will keep that density regardless of physical changes. Example a Tree log will have the same density as a wood chip from that log.

Constant are variables in an experiment that remain the same. For example plants exposed to the same amount of sunlight, watered at the same time and the same amount of water etc. The only variable ever changed in an experiment is the Independent variable

Talc and graphite are soft enough to be scratched by a fingernail.

Renewable resources are resources that can be renewed quickly like plants, trees, etc.

Pyrite is also known as fool's gold it is an ore of Iron

Clastic sedimentary rocks are based on the size of sediments Gravel is the largest, followed by sand, silt and clay

Shale is a rock that through metamorphism will become slate and schist.

The major mineral resources of Virginia are Limestone, coal, titanium, granite, crushed stone, silica and zirconium

Coal burning power plants contribute carbon dioxide, nitrous oxide, sulfur and increase the acidity of precipitation.

Global warming by the increase of carbon dioxide in the atmosphere may contribute to climate change.

The mineral test known as streak is when a mineral is rubbed against an unglazed porcelain tile leaving behind a distinctive color

Magnetite is an Iron ore that is dark and leaves behind a black streak

Contact metamorphism occurs when adjacent rock comes into contact with rock changing it without melting it

Biomass are fuels created from living things. Wood, Ethanol, and garbage are examples of Biomass fuel

The coastal plain of Virginia contains large amounts of sand and gravel which is

a natural resource

We still utilize gasoline as a fuel because it is easy to create, still abundant and cheap

Many towns in the US limit wood burning as an energy source because it is polluting it emits gases and particulates that are worse than burning coal

Solar energy is limited by the amount daylight. Because winter has the shortest days it is the time of year that would be the least efficient for solar energy.

Longitude lines are parallel and can never exceed 90 degrees on a map

Rock salt is a non-clastic sedimentary rock created from the evaporation of liquids

An experiment's data is validated by repeating the experiment as many times as possible

Slow cooling of magma produces large crystals of various colors

The 3 types of rocks are classified by their origins how they are made cooling of magma lava for igneous extreme heat and pressure for metamorphic weathering erosion and deposition for sedimentary

Sedimentary rocks are always deposited in horizontal layers Side to side