NOW TRY IN ENGLISH CLIL

Rocks

Rock is an aggregate of minerals and/or mineraloids. The Earth's outer solid layer (lithosphere),
is made of rock. There are three types of rocks: igneous, sedimentary, and metamorphic.
Petrology is the scientific study of rocks. Rocks are classified:

- by mineral and chemical composition;
- by the texture of the constituent particles;
- by the processes that formed them.

These indicators separate rocks into igneous, sedimentary and metamorphic.
Igneous rocks are formed when molten magma cools. They are divided into two main categories:

- plutonic or intrusive rocks → magma cools and crystallizes slowly within the Earth's crust;
- volcanic or extrusive rocks → magma reaches the surface either as lava or fragmental ejecta (pumice and basalt).

Sedimentary rocks are formed by deposition of clastic sediments, organic matter, chemical precipitates (evaporites). Particulate matter and cementation compact during diagenesis. Sedimentary rocks form at or near the Earth's surface. Mud rocks comprise 65% (mudstone, shale and siltstone); sandstones 20 to 25% and carbonate rocks 10 to 15% (limestone and dolostone).
Metamorphic rocks are formed by subjecting any rock type to high temperature and pressure.
These temperatures and pressures are always higher than those at the Earth's surface. They change the original minerals into other mineral types or else into other forms of the same minerals (for example by recrystallisation).
The three classes of rocks – the igneous, the sedimentary and the metamorphic – are subdivided into many groups. There are, however, no boundaries between allied rocks. By increase or diminution in the proportions of their constituent minerals, they pass by every gradation into one another. Therefore the definitions correspond to selected points in a graduated series.
Rocks have had a great importance in the technological advancement of the human race. Rocks have been used by Homo sapiens and other hominids for more than 2 million years.
The mining of rocks has been one of the most important factors of human advancement. It has progressed at different rates in different places because of the kind of metals found in that region.
The prehistory and history of civilization is classified into the Stone Age, Bronze Age, and Iron Age. Rock is still used to construct buildings and infrastructure. When used for these purposes, rocks are called dimension stone.

Activities

True (T) or False (F)?

T F 1) The "lithosphere", the Earth's outer solid layer, is made of rock.

T F 2) Petrology is an essential component of geology.

T F 3) Plutonic or intrusive rocks result when magma heats and crystallizes slowly within the Earth's crust.

T F 4) Volcanic or extrusive rocks result from magma reaching the surface either as lava or fragmental ejecta.

T F 5) Sedimentary rocks form far away from the Earth's surface.

T F 6) Metamorphic rocks are formed by subjecting any rock type to different temperature and pressure conditions.

T F 7) Igneous rocks are formed when molten magma heats.

T F 8) Lithic technology marks some of the oldest and continuously used technologies.

Tick the correct answer

1) In general rocks are of:
a) two types.
b) three types.
c) four types.

2) Igneous rocks are divided into:
a) two main categories.
b) three main categories.
c) four main categories.

3) Rocks have been used by Homo sapiens and other hominids for:
a) more than 1 million years.
b) more than 2 million years.
c) more than 3 million years.

Complete the sentences with the correct word

1) Rocks have had a huge impact on the cultural and ..... advancement of the human race.
2) In geology, rock is a naturally occurring aggregate of .....and/or mineraloids.
3) Rocks are classified: by mineral and .....composition; .....of the constituent particles; ..... that formed them.
4) Sedimentary rocks are formed by deposition of .....sediments.
5) Sedimentary rocks are also formed by organic ..... , or chemical precipitates.
6) The temperatures and pressures are always ..... than those at the Earth's surface.
7) The prehistory and history of civilization is classified into the Stone Age, ... Age, and Iron Age.
8) Nowadays rock continue to be used to construct ..... and infrastructure.

Keys

True (T) or False (F)?

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~~T~~ F 2) Petrology is an essential component of geology.

T ~~F~~ 3) Plutonic or intrusive rocks result when magma heats and crystallizes slowly within the Earth's crust.

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Complete the sentences with the correct word

1) Rocks have had a huge impact on the cultural and TECHNOLOGICAL advancement of the human race.
2) In geology, rock is a naturally occurring aggregate of MINERALS and/or mineraloids.
3) Rocks are classified: by mineral and CHEMICAL composition; TEXTURE of the constituent particles; PROCESSES that formed them.
4) Sedimentary rocks are formed by deposition of CLASTIC sediments.
5) Sedimentary rocks are also formed by organic MATTER, or chemical precipitates.
6) The temperatures and pressures are always HIGHER than those at the Earth's surface.
7) The prehistory and history of civilization is classified into the Stone Age, BRONZE Age, and Iron Age.
8) Nowadays rock continue to be used to construct BUILDINGS and infrastructure.