

Inside Our Earth

Q1. Answer the following questions.

(i) What are the three layers of the earth?

Answer: the three layers of earth are:

- Crust
- Mantle
- Core

(ii) What is a rock?

Answer: A rock is a natural mass of mineral matter that makes up the earth's crust. Rocks can be of a different colour, size, and texture.

(iii) Name three types of rocks.

Answer: The three types of rocks are:

- Igneous Rocks
- Sedimentary Rocks
- Metamorphic Rocks

(iv) How are extrusive and intrusive rocks formed?

Answer: When the molten lava coming out of volcanoes comes on the earth's surface and cools down rapidly to become a solid piece of rock, extrusive rocks are formed. For example - basalt.

When the molten lava solidifies deep inside the earth's crust, the rocks so formed are called intrusive rocks. For example - granite.

(v) What do you mean by a rock cycle?

Answer: One type of rock changes to another type under certain conditions in a cyclic manner. This process of transformation of the rock from one to another is known as the rock cycle. Let's understand it through example, igneous rocks change into sedimentary rocks. When the igneous and sedimentary rocks are subjected to heat and pressure, they change into metamorphic rocks. The metamorphic rocks which are still under great heat and pressure meet down to form molten magma. This molten magma again can cool down and solidify into igneous rocks.

(vi) What are the uses of rocks?

Answer: Rocks are useful for various purposes:

- It helps in making roads
- It is used in the construction of houses and buildings
- Small stones are used by children in different types of games, such as seven stones (pitthoo), hopscotch (stapu/kit kit), and five stones (gitti).
- They are used in fertilizers

(vii) What are metamorphic rocks?

Answer: The type of rocks formed when igneous and sedimentary rocks experience heat and pressure are called metamorphic rocks. For example, clay changes into slate and limestone into marble.

Q2. Tick the correct answer.

(i) The rock which is made up of molten magma is

- (a) Igneous
- (b) Sedimentary
- (c) Metamorphic

Answer: a

(ii) The innermost layer of the earth is

- (a) Crust
- (b) Core
- (c) Mantle

Answer: b

(iii) Gold, petroleum and coal are examples of

- (a) Rocks
- (b) Minerals
- (c) Fossils

Answer: b

(iv) Rocks which contain fossils are

- (a) Sedimentary rocks
- (b) Metamorphic rocks
- (c) Igneous rocks

Answer: a

(v) The thinnest layer of the earth is

- (a) Crust
- (b) Mantle
- (c) Core

Answer: a

Q3. Match the following.

(i) Core	(a) Earth's surface
(ii) Minerals	(b) Used for roads and buildings
(iii) Rocks	(c) Made of silicon and alumina
(iv) Clay	(d) Has definite chemical composition
(v) Sial	(e) Innermost layer
	(f) Changes into slate
	(g) Process of transformation of the rock Rocks

Answer:

(i) Core	(e) Innermost layer
(ii) Minerals	(d) Has definite chemical composition
(iii) Rocks	(b) Used for roads and buildings
(iv) Clay	(f) Changes into slate
(v) Sial	(c) Made of silicon and alumina

Q4. Give reasons.

(i) We cannot go to the center of the earth.

Answer: We cannot go to the center of the earth because the temperature and pressure at the center of the earth are very high and not just human beings but even rocks melt at the center of the Earth. This is quite impossible and therefore we cannot go to the center of the earth.

(ii) Sedimentary rocks are formed from sediments.

Answer: The small fragments of rock that hit each other and break to reach the ground are called sediments. These sediments are transported and deposited by wind, water, etc. and then are compressed and hardened to form a layer of rocks called the sedimentary rocks. This shows that sedimentary rocks are formed from sediments.

(iii) Limestone is changed into marble

Answer: Limestone is changed into marble because igneous and sedimentary rocks change into metamorphic rocks under great heat and pressure.