

INTERIOR OF THE EARTH

A. Fill in the blanks with appropriate words.

1. silicon 2. Mantle 3. Core 4. sandstone 5. coal

B. Match the rows.

1. (d) 2. (e); 3. (b) 4. (c) 5. (a)

C. Write true or false. Correct the false sentences in your notebook.

1. False. The core of the earth is made up of inner and outer cores.

2. True

3. True

4. False. Marble, slate and quartzite are examples of metamorphic rocks.

5. True

D. Choose the correct answer.

1. (b) 2. (b); 3. (b) 4. (c) 5. (c)

E. Answer the following questions in one or two sentences:

1. Name the layers of the earth.

Ans: The layers of the earth are – Crust, Mantle and core

2. What is magma?

Ans: The molten rock under the earth surface is called magma.

3. What is mineral?

Ans: Minerals are natural inorganic substances which contain one or more elements and which have definite physical and chemical properties.

4. What is Lava?

Ans: Magma that reaches the surface of the earth is called lava.

5. Mention any three uses of rocks.

Ans: Rocks are useful in many ways-

i. They are used as building materials

ii. it is used as sources of metals like iron, copper, aluminum and fossil fuels.

iii. They also yield valuable gems such as diamonds, garnets jade etc.

F. Give reasons for the following:

1. Why are sedimentary rocks called stratified rocks?

Sedimentary rocks are called stratified because they are formed by the accumulation of sediments in layers, which are called strata or beds. These layers are typically horizontal and built up over a long period of time.

2. Why do igneous and metamorphic rocks change to form sedimentary rocks?

Ans: Igneous and metamorphic rocks change to form sedimentary rocks through the processes of weathering, erosion, deposition, compaction, and cementation:

(i) **Weathering and Erosion:** These rocks are broken down into smaller particles by wind, water, and other natural forces.

(ii) **Transportation and Deposition:** The particles are carried by rivers, wind, or glaciers and deposited in layers in low-lying areas like riverbeds or oceans.

(iii) **Compaction and Cementation:** Over time, pressure compacts the sediments, and minerals bind them together to form sedimentary rocks.

G. Answer the following questions :

1. Distinguish between Sial and Sima.

Ans:

SIAL	SIMA
i. Sial is mainly composed of the minerals silica and aluminium.	i. Sima is mainly composed of the minerals Silica and magnesium.
ii. Sial forms the upper layer of the crust	ii. Sima is the lower part of the crust
lii. It is lighter in density	iii. The density of this layer is more than that of sial.

2. Describe the core of the earth.

Ans: The Core is the centre of the Earth. The core is made up of nickel (Ni) and iron (Fe) and it is referred as Nife. The Core has high temperature and pressure. The recent study shows that the inner core is solid and the outer core is liquid.

3. Ans: i. Igneous rocks are formed due to the solidification of magma. These rocks are of two types—extrusive and intrusive.
- ii Extrusive igneous rocks are formed when magma breaks through the crust and reaches the surface of the earth (where it is called lava).
- iii. Intrusive igneous rocks are formed when magma fails to break through the crust and cools slowly close under the crust forming rocks.
- iv. Basalt and dolerite are examples of extrusive and intrusive rocks respectively.

4.

Ans: When igneous and sedimentary rocks are subjected to great heat and pressure, their original character and appearance completely change, giving them a new form. Such rocks are called metamorphic rocks. Common examples include marble, quartzite, and graphite. Limestone changes to form marble, sandstone changes to form quartzite and coal changes to form graphite.

5.

Ans: i. The rock cycle is a continuous process in which rocks change from one kind into another.

ii. Igneous rocks, also called primary rocks, disintegrate under the impact of the forces of nature.

iii. The broken material gets deposited on the floor of the oceans, seas, rivers, and lakes to form sedimentary rocks.

iv. Sedimentary rocks under extreme pressure and temperature change into metamorphic rocks.

v. Again, under extreme heat and pressure, metamorphic and sedimentary rocks melt to form magma, from which igneous rocks are formed. Thus, the rock cycle continues.