

# Ch 2 Inside Our Earth

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## Exercises

1. Answer the following questions.

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

### Answer

The three layers of the Earth are the crust, the mantle and the core.

(ii) What is a rock?

### Answer

Any natural mass of mineral matter that makes up the earth's crust is called a rock.

(iii) Name three types of rocks.

### Answer

The three types of rocks are igneous rocks, sedimentary rocks and metamorphic rocks.

(iv) How are extrusive and intrusive rocks formed?

### Answer

Extrusive rocks are formed by the molten lava which comes on the earth's surface and rapidly cools down to become solid.

When the molten magma cools down deep inside the earth's crust then the solid rocks so formed are called intrusive rocks.

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

### Answer

When one type of rock changes to another type under certain conditions in a cyclic manner then this process of transformation of the rock from one to another is known as the rock cycle.

(vi) What are the uses of rocks?

### Answer

Uses of rocks:

- (i) Hard rocks are used in construction of buildings and roads.
- (ii) Some rocks are shiny and precious therefore used for making jewellery.
- (iii) Rocks are made up of different minerals and are very important to humankind.
- (iv) Some are used as fuels. For example, coal, natural gas and petroleum.
- (v) Soft rocks are used for making talcum powder, chalks etc.

(vii) What are metamorphic rocks?

### Answer

The rocks which are formed due to conversion of igneous and sedimentary rocks under great heat and pressure is called metamorphic rocks.

2. Tick the correct answer.

- (i) The rock which is made up of molten magma is  
(a) Igneous            (b) Sedimentary            (c) Metamorphic

✓ (a) Igneous

- (ii) The innermost layer of the earth is  
(a) Crust            (b) Core            (c) Mantle

✓ (b) Core

- (iii) Gold, petroleum and coal are examples of  
(a) Rocks            (b) Minerals            (c) Fossils

✓ (b) Minerals

- (iv) Rocks which contain fossils are  
(a) Sedimentary rocks  
(b) Metamorphic rocks  
(c) Igneous rocks

✓ (a) Sedimentary rocks

- (v) The thinnest layer of the earth is  
(a) Crust            (b) Mantle            (c) Core

✓ (a) Crust

3. 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 |

### 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       |

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### 4. Give reasons.

- (i) We cannot go to the centre of the earth.
- (ii) Sedimentary rocks are formed from sediments.
- (iii) Limestone is changed into marble.

### Answer

(i) We cannot go to the centre of the earth because it has very high temperature and pressure and lies 6000 km below the ocean floor. We will not be able to survive there because there is no oxygen or favourable conditions.

(ii) Sedimentary rocks are formed from sediments because of extreme compression and hardening of the particles of sediment which are transported and deposited by wind, water etc.

(iii) Limestone is changed into marble because of extreme heat and pressure as it is a sedimentary rock.