SCIENCE Benchmark (Test #2) Study Guide

This test will comprise of approximately 25 questions on Earth’s structure, Plate Tectonics, Rocks, and Minerals. You will have multiple choice questions and one or two extended response question(s). There will also be several graphs, charts, and diagrams you will need to understand in order to answer the questions correctly. Answer the following questions below using your notebook and textbook. Be very familiar with each question and answer in order to do well on the test.

1. What is the temperature, density, and composition of the crust, mantle, outer core, and inner core? Fill in the table AND explain the similarities and differences in a paragraph(s). Attach an additional sheet if needed.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Crust** | **Mantle** | **Outer Core** | **Inner Core** |
| **Temperature** |  |  |  |  |
| **Density** |  |  |  |  |
| **Composition** |  |  |  |  |

1. What are lithospheric plates and what causes them to move?
2. What are the 3 different types of plate boundaries and what geologic events do they cause on earth surface?

|  |  |
| --- | --- |
| Plate Boundaries (Include arrows) | Geologic Events Caused |
| 1. |  |
| 2. |  |
| 3. |  |

1. What is the difference between weathering and erosion?
2. What is the difference between chemical and mechanical weathering?
3. In what ways do physical processes, such as, weathering and erosion, gravity, volcanoes, etc., affect geological features on earth?
4. How do fossils give us evidence that the surface of the Earth and climate has been changing?
5. What is a mineral (list the 5 characteristics) and what are the different methods (tests) used to classify a mineral?

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| --- | --- | --- |
| **Mineral Characteristics** | **Minerals Tests** | **Minerals Tests continued** |
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1. Name the 3 different types of rock types and tell how they were formed.

|  |  |
| --- | --- |
| **Rock Type** | **How it formed** |
|  |  |
|  |  |
|  |  |

1. What is the Rock Cycle?
2. What processes occurs to change one type of rock into another? Fill in the chart below.

|  |  |  |
| --- | --- | --- |
| **From:** | **To:** | **Processes of Formation (see below):** |
| Sediment | Sedimentary Rock |  |
| Sedimentary Rock | Sediment |  |
| Sedimentary Rock | Metamorphic Rock |  |
| Metamorphic Rock | Sediment |  |
| Metamorphic Rock | Magma |  |
| Magma | Igneous Rock  |  |
| Igneous Rock  | Magma |  |
| Igneous Rock | Metamorphic Rock |  |
| Igneous Rock | Sediment |  |

**Processes of Formation:**

**Breaking down of rock Heat and Pressure Pressure and cementation**

**Cooling Melting**