

Student Name: _____

Class: _____

Due Date: _____

Introduction to Igneous Rocks

Essential Understanding:

- Igneous rocks are formed through the cooling and solidification of magma or lava.
- Igneous rocks provide valuable information about the Earth's history, including its temperature, pressure, and composition.

Complete these concept checks:

1. What is the definition of igneous rocks?

2. What is the main difference between intrusive and extrusive igneous rocks?

Section 1: Multiple Choice Questions

Choose the correct answer for each question:

1. What is the definition of igneous rocks?

- a) Rocks formed from the cooling and solidification of magma or lava
- b) Rocks formed from the erosion and deposition of sediments
- c) Rocks formed from the metamorphism of existing rocks
- d) Rocks formed from the weathering of rocks

2. What is the main difference between intrusive and extrusive igneous rocks?

- a) Intrusive rocks are formed from magma, while extrusive rocks are formed from lava
- b) Intrusive rocks are formed from lava, while extrusive rocks are formed from magma
- c) Intrusive rocks are formed below the Earth's surface, while extrusive rocks are formed above the Earth's surface
- d) Intrusive rocks are formed above the Earth's surface, while extrusive rocks are formed below the Earth's surface

Section 2: Short Answer Questions

Answer the following questions in complete sentences:

1. Describe the formation process of intrusive igneous rocks.

2. What are the main types of igneous rocks?

Section 3: Essay Question

Explain the significance of igneous rocks in shaping the Earth's surface.

Consider the following points:

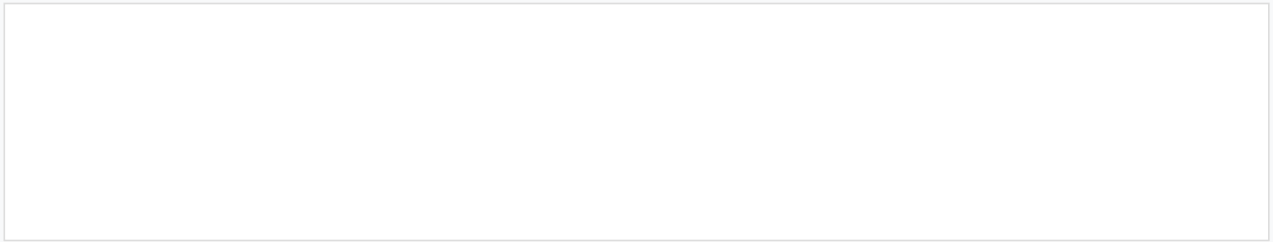
- How do igneous rocks contribute to the formation of mountains and volcanoes?
- What role do igneous rocks play in the creation of new landforms?
- How do igneous rocks impact the environment and ecosystems?

Section 4: Diagram

Create a labeled diagram illustrating the differences between intrusive and extrusive igneous rocks.

Include the following features:

- A diagram of the Earth's crust and mantle
- Illustrations of magma and lava
- Examples of intrusive (e.g., granite) and extrusive (e.g., basalt) igneous rocks
- Labels explaining the formation process and characteristics of each type



Section 5: Extension Activity

Research and write a short report on a specific type of igneous rock, such as granite or obsidian.

Explore its formation, properties, and uses.

Conclusion

Igneous rocks play a crucial role in shaping our planet and understanding their formation, types, and significance is essential for any geology student.

By completing this homework sheet, students will demonstrate their understanding of igneous rocks and their role in the rock cycle.

Assessment Criteria

Completion of all sections

Accuracy and completeness of answers

Quality of diagram and labeled features

Clarity and coherence of written work

Note to Parents/Guardians

To support your child's learning, please encourage them to ask questions and seek help when needed.

Provide a quiet and comfortable workspace for your child to complete the assignment, and review their work to provide feedback.

Encourage your child to use online resources, such as educational websites and videos, to supplement their learning.

Remind your child to manage their time effectively and complete the assignment within the allocated 30-45 minutes.