

What factors contribute to the formation of magmas?

Discuss in detail the differences between mafic, intermediate, and felsic magmas.

How does cooling history relate to the texture of the resulting rock?

How do textural variations within the dike illustrate the effect of cooling history?

Discuss cooling and the formation of phaneritic, aphanitic, and glassy textures.

What is Bowen's Reaction Series and how does it describe magma crystallization?

How does differentiation relate to the evolution of magmas?

How does magma composition relate to plate boundaries?

Describe the formation of intermediate (andesitic) magmas in subduction zones.

Describe granitic (felsic) rocks.

What are xenoliths and what do they represent?

Describe the formation of a batholith.

How does the study of igneous rocks help in our interpretation of earth history?

Compare and contrast igneous rocks found on the continents and ocean floor.