Review Questions for Chapter 1: Some Fundamental Concepts.

1. In the early 19th century the origin of igneous rocks was hotly debated between the "Plutonists," who believed in an igneous origin, and the "Neptunists," who believed that the crystalline nature originated as a submarine precipitate. What field and textural criteria can you imagine that would indicate the former rather than the latter?

2. What distinguishes:

   a. Volcanic from plutonic rocks?

   b. Pyroclastic volcanics?

   c. Magma from lava?

3. What are the four principal compositional subdivisions of the Earth? What material or rock type broadly represents each and what is the approximate thickness of each?