

## Chapter 10

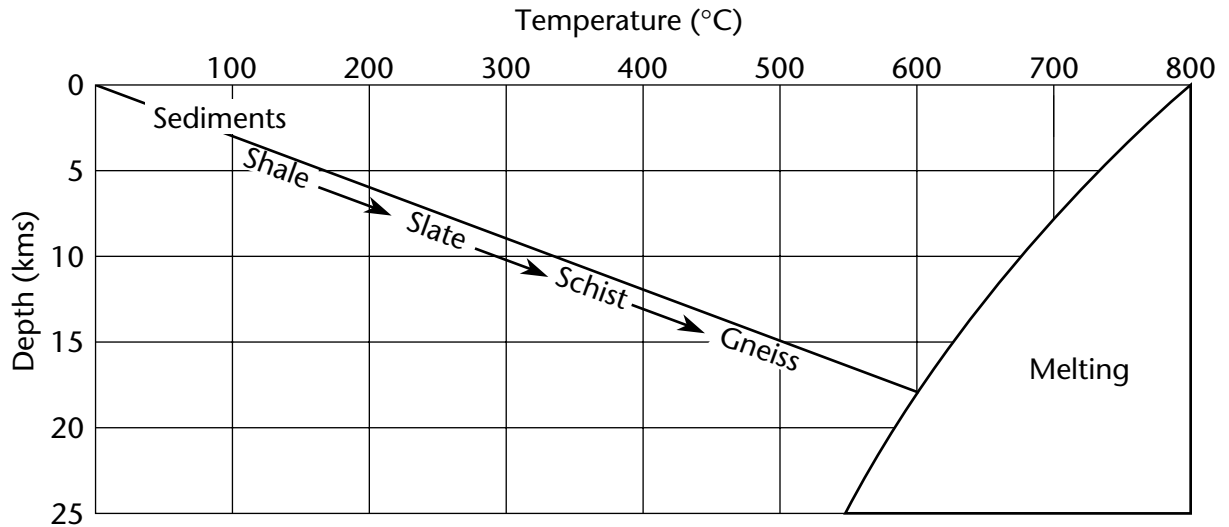
Use with Section 3

## ENRICHMENT

## ● Metamorphic Rocks

## Metamorphic Process

Use the graph to answer questions about the formation of metamorphic rocks.



1. What is the relationship between rock temperature and depth beneath the surface?  
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2. At a depth of 10 kilometers, what would the temperature be? \_\_\_\_\_
3. Between 0 and 10 kilometers, how many degrees per kilometer does the temperature increase?  
\_\_\_\_\_
4. Which metamorphic rock shown forms at the highest temperature? \_\_\_\_\_
5. Through what general temperature range would you expect schist to form? \_\_\_\_\_
6. How many kilometers beneath the surface does gneiss occur? \_\_\_\_\_
7. As the depth increases, what happens to the temperature at which rock melts?  
\_\_\_\_\_
8. Suppose you knew that a certain metamorphic rock begins to form at about 300°C. How many kilometers beneath the surface might this rock temperature occur? \_\_\_\_\_
9. How far beneath the surface does shale metamorphose to slate? \_\_\_\_\_
10. Metasomatism is described as a process by which metamorphic rocks may gradually change into granite (an igneous rock). At which temperature does metasomatism begin? \_\_\_\_\_