

Chapter 4

ENRICHMENT

Use with Section 2

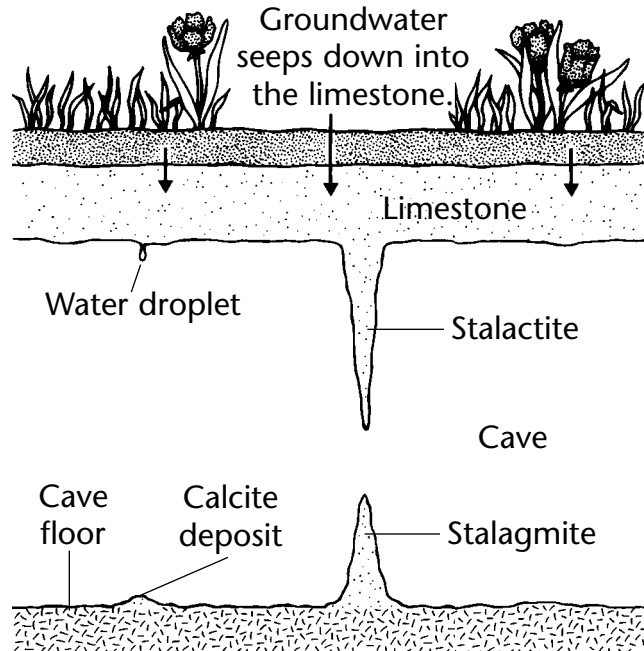
● Igneous and Sedimentary Rocks

Stalactites and Stalagmites

Read the following information. Then answer the questions.

If you have ever been inside a cave, you may have seen beautiful, icicle-like objects hanging from the ceilings. These stone formations are *stalactites*, and they are found in many limestone caves. Often, formations similar to stalactites grow on the floors of caves. These look like upside-down icicles and are called *stalagmites*. (These names are often confusing. A good way to remember which is which is that stalactites are on the ceiling, and stalagmites are on the ground.)

How do stalactites and stalagmites form? They form when groundwater that has a lot of carbon dioxide seeps through limestone. As the water seeps through, it dissolves a mineral called calcite in the limestone. The water then forms droplets that hang from the ceilings of caves. As the droplets hang, the carbon dioxide they contain is lost into the air of the cave. This leaves small amounts of calcite that slowly accumulate and grow. Over hundreds or thousands of years, these calcite deposits grow into stalactites. Stalagmites form from the calcite that drips from cave ceilings onto cave floors. These deposits accumulate upward. Often, a stalagmite will grow directly below a stalactite as shown in the figure.



Applying Problem-Solving Skills

1. Why do you think some stalactites grow without a stalagmite below them, or some stalagmites grow without a stalactite above them? _____

2. Are stalactites and stalagmites igneous or sedimentary? Explain your answer.
