

**Indiana Course-Aligned Assessment  
Earth and Space Science – Sample Items**

1. Peak hurricane activity in the mid-Atlantic occurs between August and October because during this time period the
  - A surface temperature of the Atlantic Ocean increases.
  - B relative humidity over the Atlantic Ocean decreases.
  - C gyre in the Southern Atlantic Ocean reverses direction.
  - D northeast trade winds over the Atlantic Ocean weaken.
  
2. Venus’ period of rotation is 19 days longer than its period of revolution. Based on this information, which statement is TRUE?
  - A Venus’ year is longer than its day.
  - B Venus’ day is longer than its year.
  - C The length of summer on Venus is longer than the length of winter.
  - D The length of winter on Venus is longer than the length of summer.
  
3. Groundwater in Indiana is found in consolidated and unconsolidated aquifers. Consolidated aquifers exist in Mid-Ordovician bedrock formations, such as sandstone, limestone, and shale. Unconsolidated aquifers consist of Quaternary-age deposits, such as sand and gravel.

Explain how differences in climate between the Middle-Ordovician and the Quaternary resulted in these different geologic formations.

**Answer Key**

Item	Answer	Alignment
1	A	ES.4.2
2	B	ES.2.2
3	<ul style="list-style-type: none"> <li>• During the Mid-Ordovician, warm, shallow seas covered much of the land. Marine sediments during this time were deposited which led to the formation of limestone, shale and sandstone.</li> <li>• During the Quaternary, continental ice sheets covered nearly one-third of Earth’s surface. Glacial melt water deposited sand and gravel.</li> </ul>	ES.5.6