In Class Activity: Mantle Hot Spots

Name _____ Name _____

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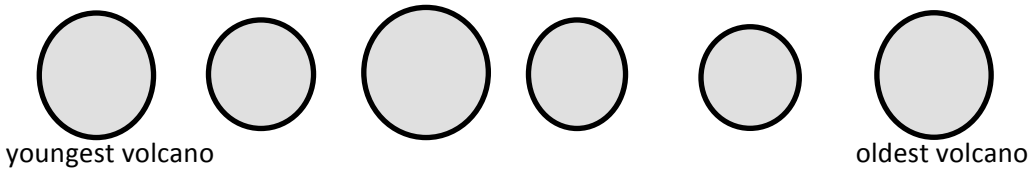
Hot spots in the Earth's mantle are relatively warmer areas that persist for tens to hundreds of millions of years. As the tectonic plates of Earth's crust move over these hot spots, magma is produced by the hotter temperatures, leaving long lines of volcanic "blisters" in the overlying plates. The hot spots don't move. The plates do. The professor will demonstrate how this works with a 5x8 card and a candle. You have also been given a candle to help you understand the demonstration, but please do not light it. Based on that demonstration, answer the following questions.

1. Draw an arrow on the diagram below indicating the direction that the plate moved based on the ages of the volcanoes produced by the hot spot beneath the tectonic plate.



2. In the space below, write a general rule for determining the direction the tectonic plate moved based on the relative ages of the volcanoes produced by a mantle hot spot.

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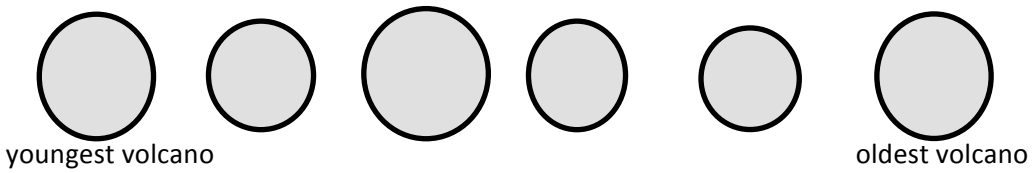

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