

Item: # _____

Mantle Simulation

Name: _____

Observations: *(descriptive)*

Drawing/Diagram:

- 1) The water in the tub represents most of Earth's mantle. The warm water in the "tube" represents part of the mantle material that was heated by the Earth's VERY HOT core. Used what you observed in the simulation to sketch a diagram showing how you think Earth's mantle might move and why.

- 2) What do you think is causing the warm water to move as it did in the simulation? (If you do not know, what questions do you have?)

- 3) Water is a liquid that flows easily, but Earth's mantle is a solid that behaves like a viscous (or very thick) liquid. How do you think Earth's mantle might flow different than the water?

- 4) What happened to the cold water? Why do you think it moved that way?

- 5) Earth's mantle is constantly moving. Explain how this Simulation of the hot and cold water relates to the mantle's movements.

- 6) If you performed the simulation with a thicker fluid, such as motor oil, how do you think results would be different? How would they be similar?