

Name: _____

Period: _____

Glitter lamp exploration

Day 8 lesson overview: Students will use their understanding from the density lab to explain how a glitter lamp works. Students will also apply their understanding to an animation of convection currents in the mantle.

1. Glitter lamp: Describe what you see happening.
2. Now, pick one “glitter molecule” and follow it. Describe the motion of the glitter. Use words such as “up,” “down,” “left,” and “right.”

Turn to a student near you and share your answers to #2. After you share, write down new words/descriptions.

3. How is the motion of the glitter similar to what you saw in the “Hot/Cold Water” Activity?
4. Describe how you think a glitter lamp works.

The mantle video

5. Describe what you see happening in the video of the Earth’s mantle. Again, use words such as “up,” “down,” “left,” and “right.”

Turn to a student near you and share your answers to #5. After you share, write down new words/descriptions.

6. How is the movement of the Earth’s mantle like the movement of the glitter lamp?

Study the table below to answer questions 7 and 8.

Insert a table that shows composition, temperature, and density of each layer of the earth.

7. What do you notice about the table? What do you think the table is trying to tell you?
 - a. As we go from the inner core to the continental crust, the temperature ...
 - b. The density of the oceanic crust is _____ than the density of the continental crust.

8. Talk with someone near you. How does the information on this table, the video, and the glitter lamp help you explain why the tectonic plates that make up the Earth move?