

Unit 2: Heat and Energy in the Earth's Systems

L8: Caution, Contents Under Pressure

Guiding Question: Explain how density, temperature, and pressure contribute to the composition of the Earth's interior.

- Do Now:

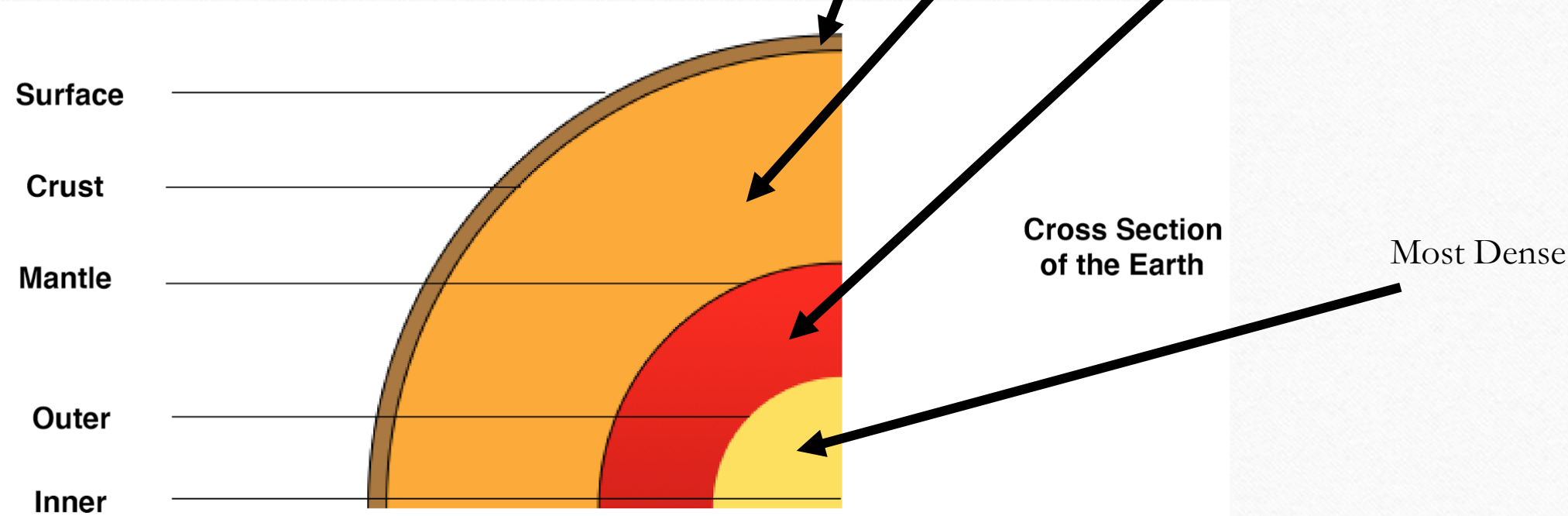
- Draw a diagram of what you think the interior of the earth looks like.

Notes

- Density
 - Objects will layer themselves based off of density
 - Things with a higher density have particles more closely packed together and will sink while objects with a lower density have particles less packed and will float

Notes

- Earth's layers are sorted by density:



Notes

- Temperature also contributes to the density of an object
 - Objects with a higher temperature have particles moving more quickly and makes the particles spread out more – lowering the density
 - Objects with a lower temperature have particles moving more slowly and this makes the particles move closer together – increasing the density

Notes

- Pressure, however, will change the density as well.
 - If there is more pressure, particles are being pushed more closely together – density increases
 - If there is less pressure, particles are not being pushed as hard – density decreases
- The layers of the earth are arranged as they are because of density, temperature, and pressure (from all the layers above being stacked on them)

Closure

- Homework #8 due Friday (10/20)
- Achieve 3000: To Warn the People due Friday 10/27 at 11:59pm