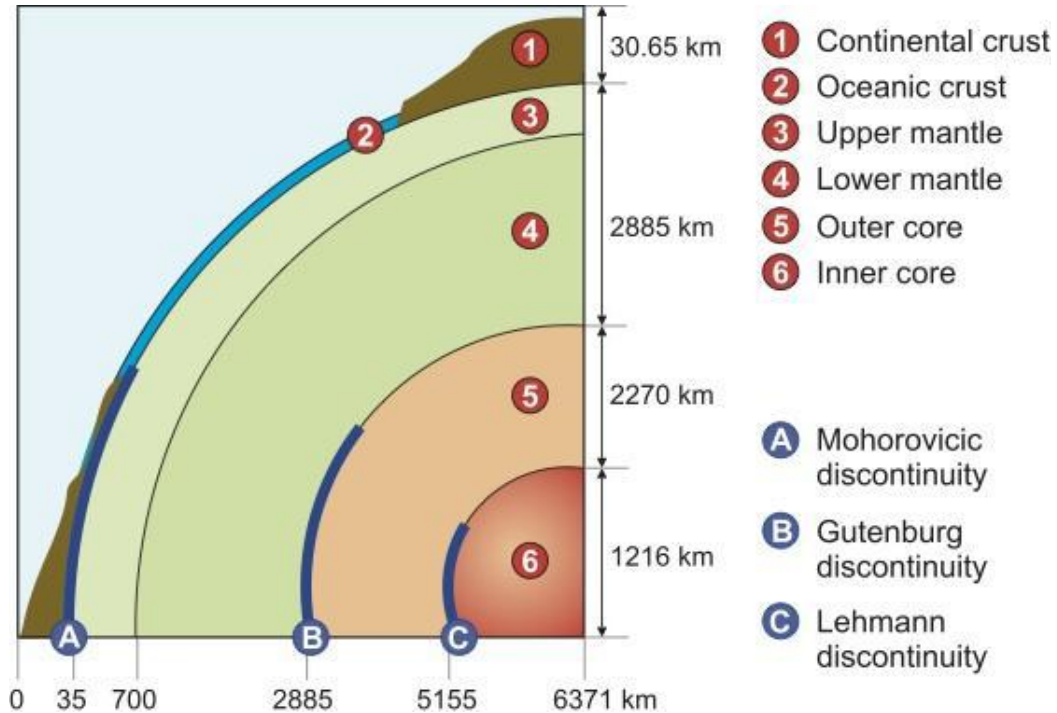


## Spinning Spirals – Teacher Demonstration

Our planet is layered like an old-fashioned trifle pudding. The lightest, or more correctly least dense rocks “float” to form the crust while denser rocks sink downward.



These layers have differentiated due to two processes:

1. Heat driven convection currents
2. Density separation.

### Teacher Demonstration - Spinning spirals (Convection (heat driven) currents)

Your teacher will demonstrate the effect of heat on air.

#### Observation

What happens to the air above the hot liquid? \_\_\_\_\_

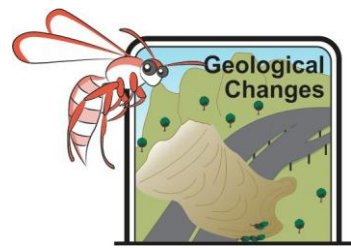
\_\_\_\_\_

#### Conclusion

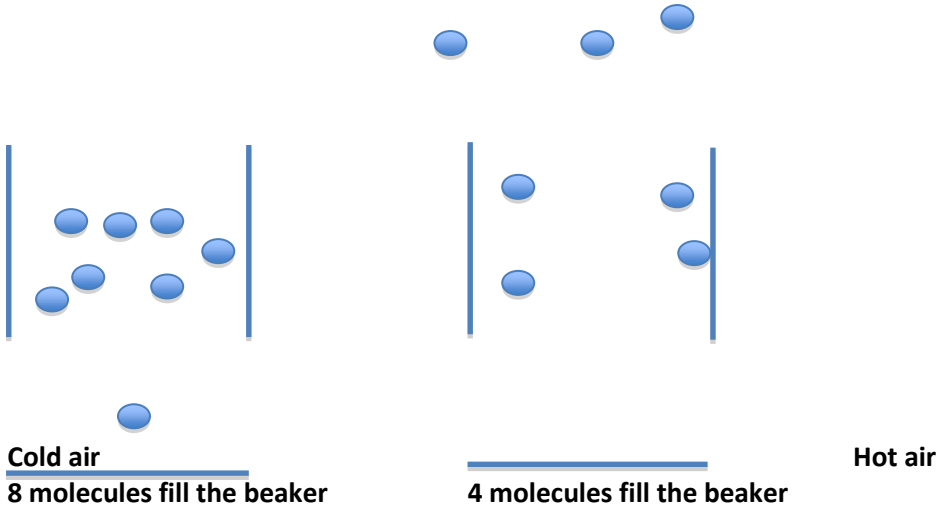
Heat below causes \_\_\_\_\_

#### Explanation of density

Density is a measure of space (volume) matter takes up. When air or anything is heated, its molecules have more energy to bounce off each other and the same number of molecules takes up more space.



# Spinning Spirals – Teacher Demonstration



“HEAT” and “COLD” are just descriptions of the amount of movement of molecules in a substance.

What would happen if rocks within the Earth got hotter? \_\_\_\_\_