

Sec 2-1  
The Earth's  
Structure

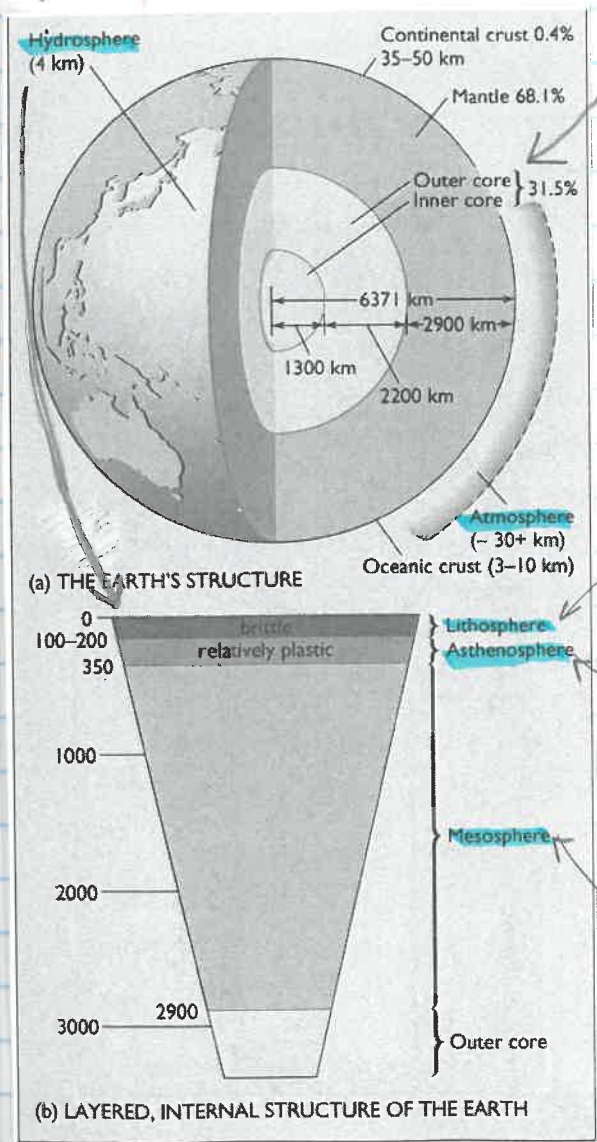
# Earth's Structure

- compositional layers: crust, mantle, core
- physical state layers: lithosphere, asthenosphere, mesosphere, outer core, inner core

**CRUST**  
 Mass: 0.3% of the planet  
 Press: 1 bar - 1 million bars  
 Density: 2.5-3.0 g/cm<sup>3</sup>  
 Temp: 0-650 °C  
 Varies in thickness from 8-70 km. Oceanic crust covers 55% of the surface

## Concentric layers

- distinct chemical composition
- influenced by temperature and pressure changes

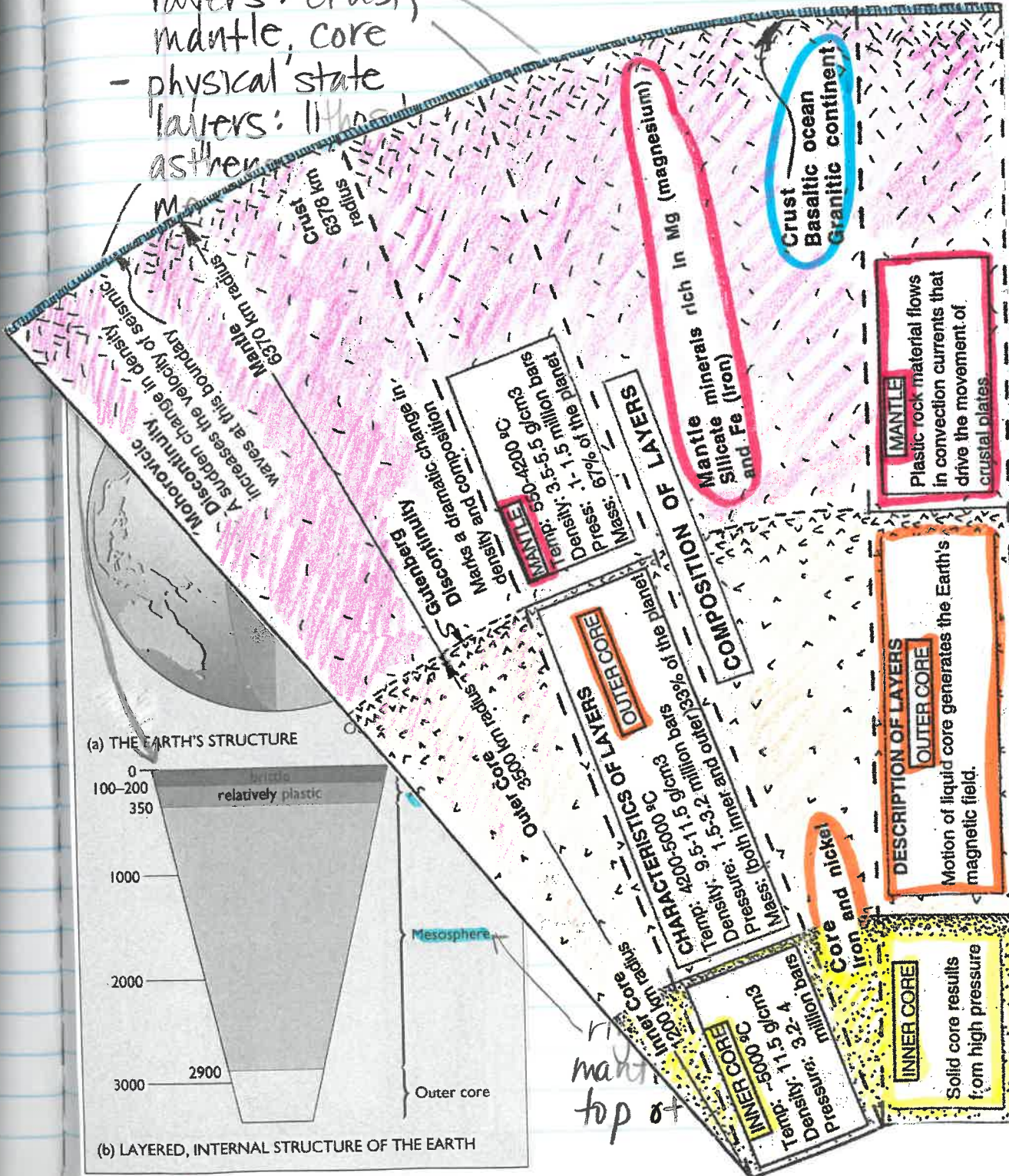


crust and upper most mantle  
 where mantle rocks start to melt  
 rigid zone of mantle down to top of outer core

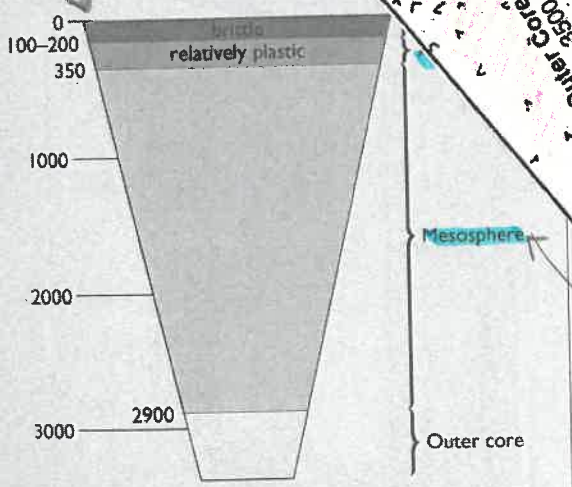
# Earth's Structure

- compositional layers: crust, mantle, core
- physical state layers: lithosphere, asthenosphere, mesosphere

**CRUST**  
 Varies in thickness from 5-80 km. Oceanic crust covers 55% of the surface  
 Temp: 0-550°C  
 Density: 2.5-3.0 g/cm<sup>3</sup>  
 Press: 1 bar - 1 million bars  
 Mass: 0.3% of the planet



(a) THE EARTH'S STRUCTURE



(b) LAYERED, INTERNAL STRUCTURE OF THE EARTH

mantle top