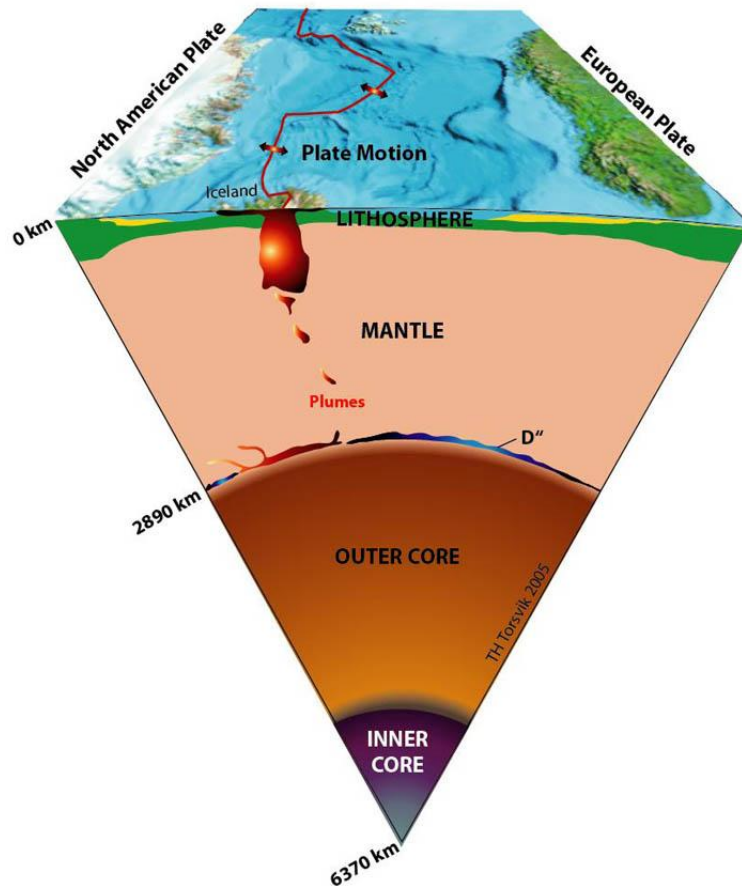


THE STRUCTURE OF THE EARTH



Layer of the Earth	Estimated Thickness (kilometres)	State	Estimated Temperature (°C)
Crust	8 to 64	Solid and rigid	20 to 500
Mantle	2900	Solid but plasticine - like	500 to 2000
Outer Core	2200	Liquid	3000
Inner Core	1300 (radius)	Solid	4000

Refer to the information above to answer the questions.

- The crust on which we stand varies in thickness from 8 km to 64 km. Would the crust be thickest under continents (such as Australia and Europe) or under the oceans? _____

2. The continents are situated on crustal plates that can move. What feature of the mantle allows movement of the earth's crust to occur?

3. The table above shows the depths and temperatures recorded in a mine shaft.

Depth (km)	Temperature (°C)
0	20
1	51
2	82
3	112
4	142
5	171
6	201
7	230

- (a) Plot the data on a line graph on your own paper. Mark the depth on the horizontal axis from 0 to 20 km. Mark the temperature on the vertical axis from 0 to 500°C.

- (b) Predict the temperature at the following depths – 8 km and 20 km.

- (c) The deepest mine is less than 10 kilometres deep. How do you think geologists (scientists who study earth movements and rocks) estimate the thickness and temperature of the layers of the earth? _____

4. The outer core is liquid (molten rock). However the inner core which is hotter than the inner core is thought to be solid. How is this possible? _____
