OC 1.5 – Plate Tectonics **Name:** ……

Use the resources found on https://www.islandphysics.com/plate-tectonics.html to answer the questions below.

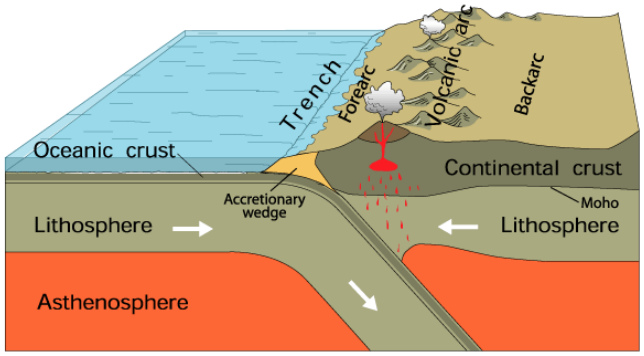
1. The Earth has three main layers; crust, mantle and core.
   a) Explain how we know that below the crust is molten rock.
   b)

   c) What evidence is there for the core being made of iron?

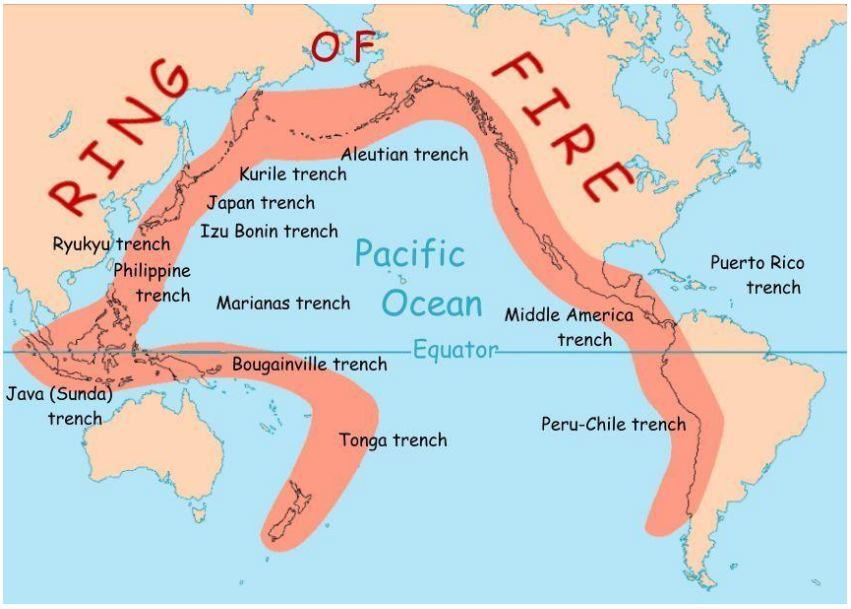
   d) Why is the iron core at the centre and the crust at the surface, rather than just evenly distributed throughout the planet?

2. What causes the sections of the crust (plates) to move?

3. When a continental plate crashes against an ocean floor plate, the oceanic plate is the one to be subducted under the continental plate and ultimately melted down with the continental plate rising up to form mountains. Why do you think that is, rather than the other way around?



4. Much is heard about the Ring of Fire. What is it and what causes it?



5. Draw a labelled diagram of a convection current moving a pair of oceanic plates apart, which is what is occurring at the Mid-Atlantic Ridge.

6. Where is the heat energy coming from to drive this process?