

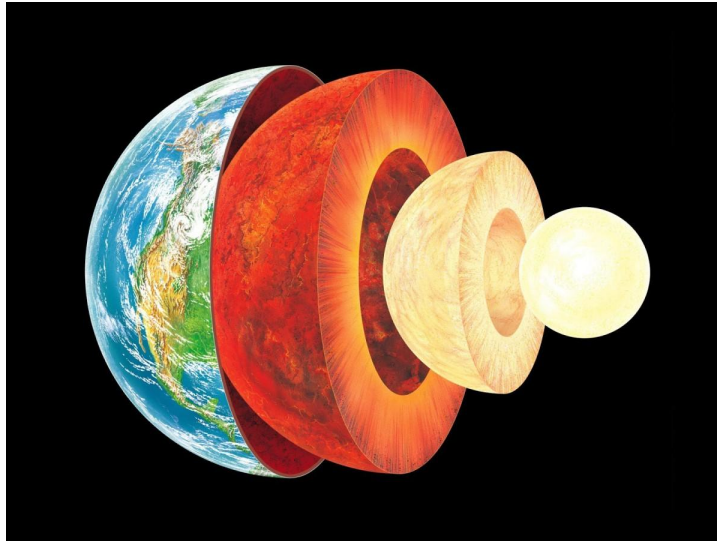
# The Moving Crust

## Topic 4

# The Moving Crust

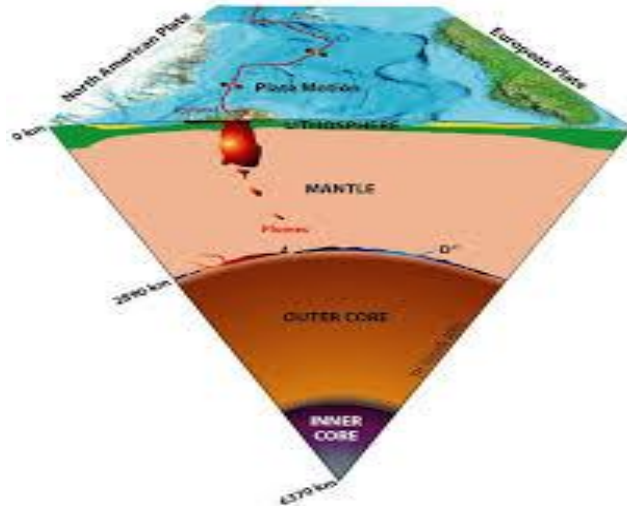
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- The Earth is split into 4 distinct layers
- These 4 layers give us clues about the age and make up of the Earth



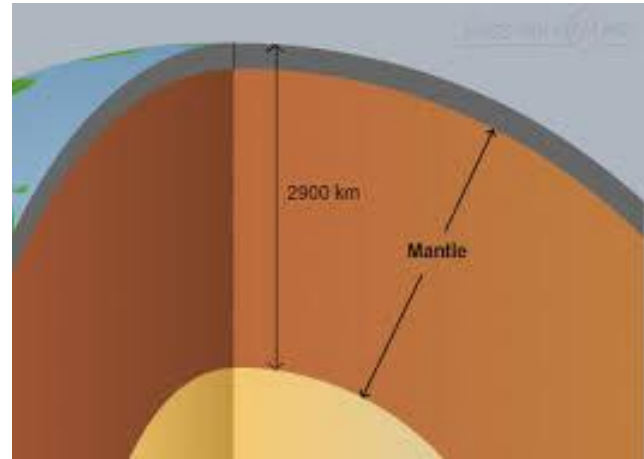
# The Crust

- The crust is the top layer, which is home to plants and animals
- The crust is very thin, ranging between 5 and 60 km thick



# The Mantle

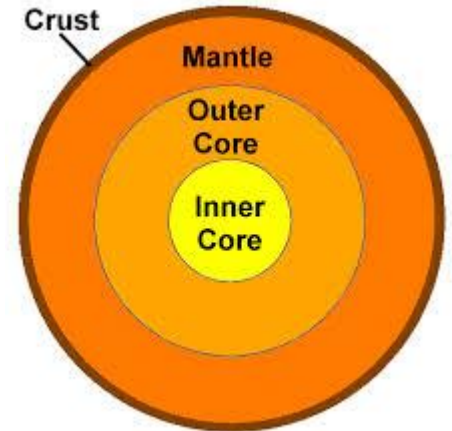
- The mantle is found under the crust
- It is made of rocky material
- The crust and the mantle together make up the **lithosphere**
- The upper mantle is solid, while the lower is partly melted, with slow rock flow



# The Core

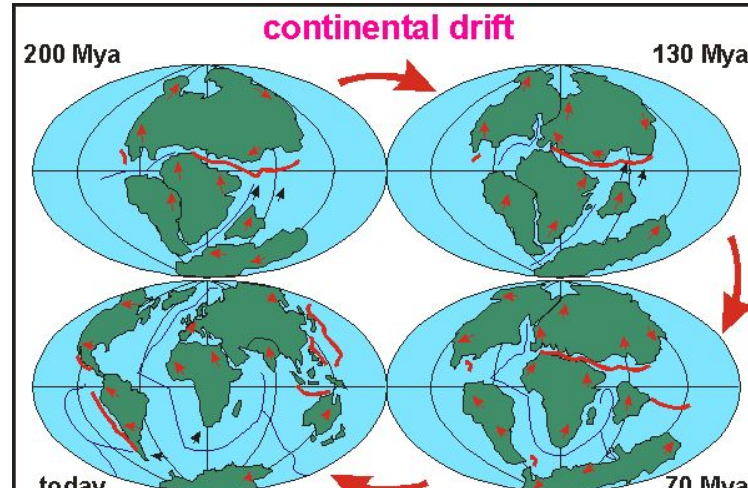
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- The core is split into an outer and inner core
- The outer core is made of liquid nickel and iron, and has a temperature of 5500
- The inner core is a solid ball due to the pressure of the other layers of the Earth $^{\circ}\text{C}$
- The inner core has a temperature of 6000 $^{\circ}\text{C}$



# Continental Drift

- Alfred Wegener started to look at the fit of the continents in the early 1900's
- He noted some biological and geological evidence that supported the theory of the continents fitting together



# Biological Evidence

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- Several fossils of similar plants and animals have been found on different continents
- Many animals that could not swim at all have been found on multiple continents, separated by large oceans
- Wegener thought that due to continental drift, the once close continents became very far apart



# Geographical Evidence

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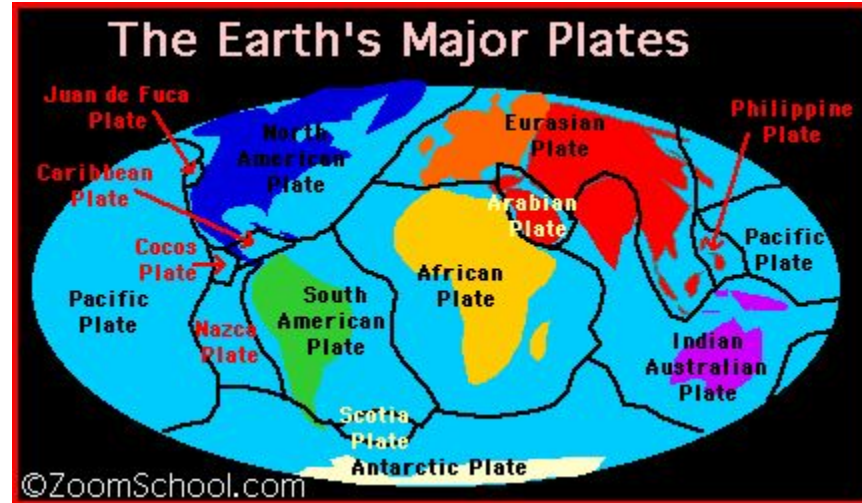
- Coal also provides evidence for his theory.
- You need rich plant life in tropical, swampy environments for coal to form.
- North America, Europe and Antarctica are in moderate to cold climates
- Evidence of glaciers were also found in places with warm climates (India, Australia, etc.)



# Theory Of Plate Tectonics

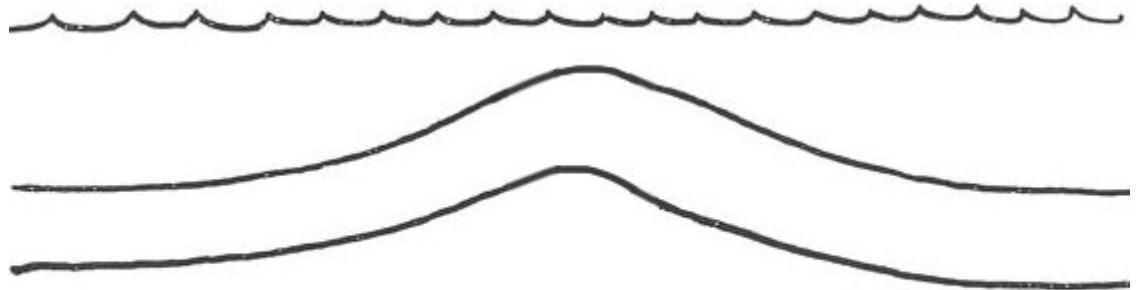
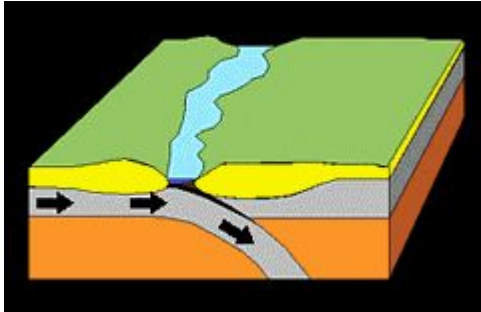
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- The Earth is broken into pieces, called plates
- These plates are always moving on the Earth's mantle



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- Some plates are coming together, called converging plates
- Diverging plates are pulling apart



# Questions

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Work on definitions if finished early