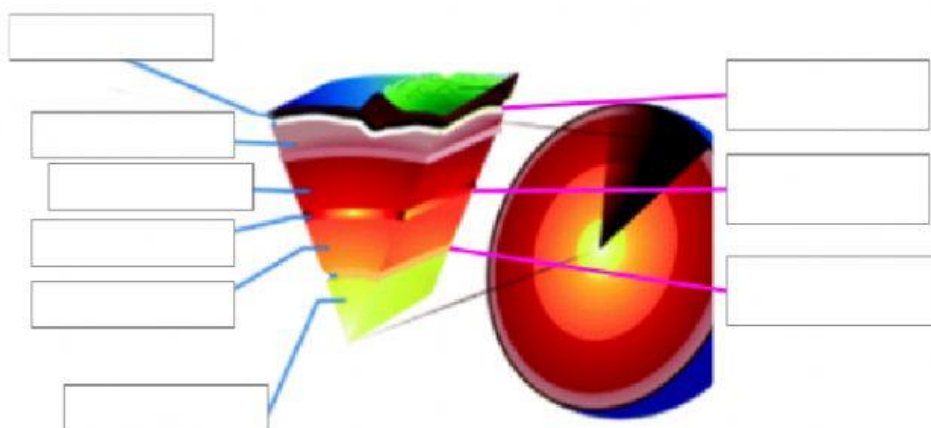


Continental drift theory

Before starting

1. What do you know about the internal structure of Earth? Try to complete the left part of the following image with these names:

Inner core - Mesosphere - Outer core - D" layer - Lithosphere - Asthenosphere



- a. Search the names of the discontinuities that separate the crust from the mantle, the mantle from the core and the outer core from the inner core and place them in the right part of the above image.
- b. There are layers that are solid but there are other layers that are liquid due to the temperature and pressure in those zones. Complete the following table with that information. You can find the answers in your book (pages 9 - 11).

Layer	Consistency
Lithosphere	Solid

Continental drift theory

Until the beginning of the twentieth century, most scientists believed that the continents had always been fixed in the same positions. However, in 1912 (the same year as the sinking of the Titanic) Alfred Wegener proposed the **theory of continental drift**. Wegener believed that the continents could move and he presented considerable evidence to support his theory.

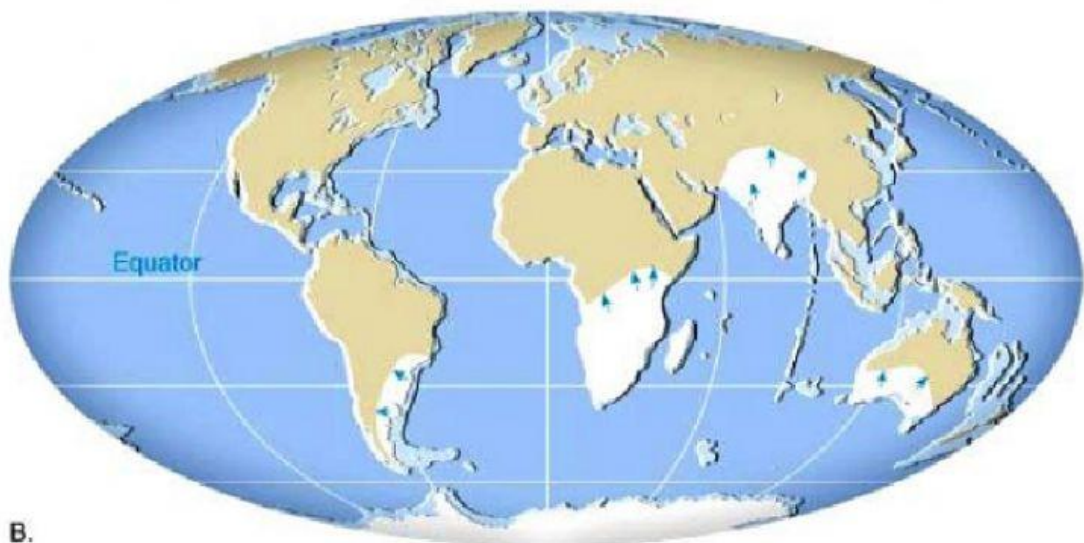
2. Two pieces of evidence Wegener presented were **geographical** and **palaeontological** evidence. Cut the continental land masses, name them (South America, Africa, India, Antarctica, Australia) and try to piece them together.

- a. What is the name of the supercontinent you have just pieced together?

- b. Explain the geographical evidence.

- c. Explain the palaeontological evidence.

3. The last piece of evidence was the **palaeoclimatic** evidence. Wegener was a meteorologist and a geologist, so this was his specialty. Glaciers move slowly over land, and the ice breaks and transports rocks. It has been observed evidence of the presence of a glacier million years ago as it is shown in the picture below:



B.

Draw the limit of the glacier in the continental land masses from the previous exercise. Do they fit together?