



The plate tectonic story: a scientific jigsaw



Simplified map of Earth's principal tectonic plates, which were mapped in the second half of the 20th century (red arrows indicate direction of movement at plate boundaries). [1]

- Q 1. Why did Alfred find his theory was not accepted by other scientists?
- Q 2. What evidence resulted in his basic idea being accepted after all?
- Q 3. Explain the theory of plate tectonics
- Q 4. How do we believe that landmasses move about?
- Q 5. Scientists publish their findings in journals for other scientists to read. Why is it important for scientists to read what their colleagues around the world are doing?
- Q 6. Before a scientific paper can be published it has to be 'refereed' by other experts in the field. If Alfred had written a scientific paper, do you think the referees would have accepted it for publication? Explain your answer.

This is one of a series JESEI activities. In this activity students deal with ideas and evidence in science and are helped to develop their reading and written communication skills.

Activity details available at:

<https://geohubliverpool.org.uk/jesei/plate%20tectonic%20story.htm>

Note: There are two closely related activities which teachers might wish to tackle at the same time. These are:

- *Magnetic stripes on the ocean floor: a lab simulation: teacher demonstration*
- *Magnetic patterns: ocean floor pattern plotting: a student activity*