

## Theory Of Plate Tectonics (p. 280 – 289)

Hard Boiled  
Egg  
↳ Cracked

### I. Plate Tectonics

1. Define the term plate tectonics. (J. Tuzo Wilson - 1965)

Plate Tectonics – Pieces on Earth's lithosphere are in slow, constant motion, driven by convection currents in the mantle.

2. Match the terms with correct definitions.

- (p. 280)
- |                              |   |
|------------------------------|---|
| 1. <u>C.</u> - Plates        | A. Layer of the Earth composed of the crust & upper mantle<br><i>(Lift up) → like "lift up"</i> |
| 2. <u>A.</u> - Lithosphere   | B. Plastic-like layer of the Earth below the upper mantle                                       |
| 3. <u>B.</u> - Asthenosphere | C. The crust and upper mantle broken into sections.   |

3. Plates can carry continents or parts of the ocean floor, but not both.

Circle One : True      False      (Sometimes both)

4. List the fifteen plates located on the Earth. (Not all answers are in the book.)

- (p. 281)
- |              |                    |                 |
|--------------|--------------------|-----------------|
| 1. African   | 6. Fiji            | 11. Pacific     |
| 2. Antarctic | 7. Indo Australian | 12. Philippine  |
| 3. Arabian   | 8. Juan de Fuca    | 13. Sandwich    |
| 4. Cocos     | 9. Nazca           | 14. Scotia      |
| 5. Eurasian  | 10. N. American    | 15. S. American |

### II. Plate Boundaries

Univ.  
High  
Dance!

1. Match the plate boundary with the correct definition.

- |                                    |                                       |
|------------------------------------|---------------------------------------|
| 1. <u>B.</u> - Divergent Boundary  | A. Two plates slip past each other.   |
| 2. <u>C.</u> - Convergent Boundary | B. Two of Earth's plates slide apart. |
| 3. <u>A.</u> - Transform Boundary  | C. Two plates come together.          |

(p. 286)

2. List two examples of a divergent boundary on Earth.

Mid-Atlantic Ridge

Great Rift Valley

3. Define the term subduction zone.

Subduction Zone – area where colder, older, denser oceanic plate bends + sinks down into the mantle

4. When two plates collide, what determines which plate comes out on top?

The density of the plates  
(oceanic vs. continental)

5. List two examples of each type of convergent boundary on Earth.1. Oceanic-Continental ConvergencePeru-Chile TrenchCascade Mts. (New York)2. Oceanic-Oceanic ConvergenceMariana TrenchAndes Mts.Aleutian Islands3. Continental-Continental ConvergenceHimalayan Mts.Appalachian Mts.

## 6. List an example of a transform boundary on Earth.

P. 284San Andreas Fault- North Anatolian Fault  
(Turkey)- Alpine Fault  
(New Zealand)III. Features Caused By Plate Tectonics

## 1. Define the term fault.

St. Louis  
World  
Series  
2011Fault - break in Earth's crust where rocks have slipped past each other Ex. New Madrid Fault

## 2. Define the term rift valley.

P. 283Rift Valley - deep valley that forms where two plates pull apart

## 3. Match the fault with the correct definition.

1. B. - Normal Fault

A. Rocks on opposite fault sides move in opposite directions

2. C. - Reverse Fault

B. Rock layers above the fault move down below the fault

P. 2833. A. - Strike-Slip Fault

C. Rock layers above the fault move up above the fault

## 3. Complete the following.