The Story of Plate Tectonics
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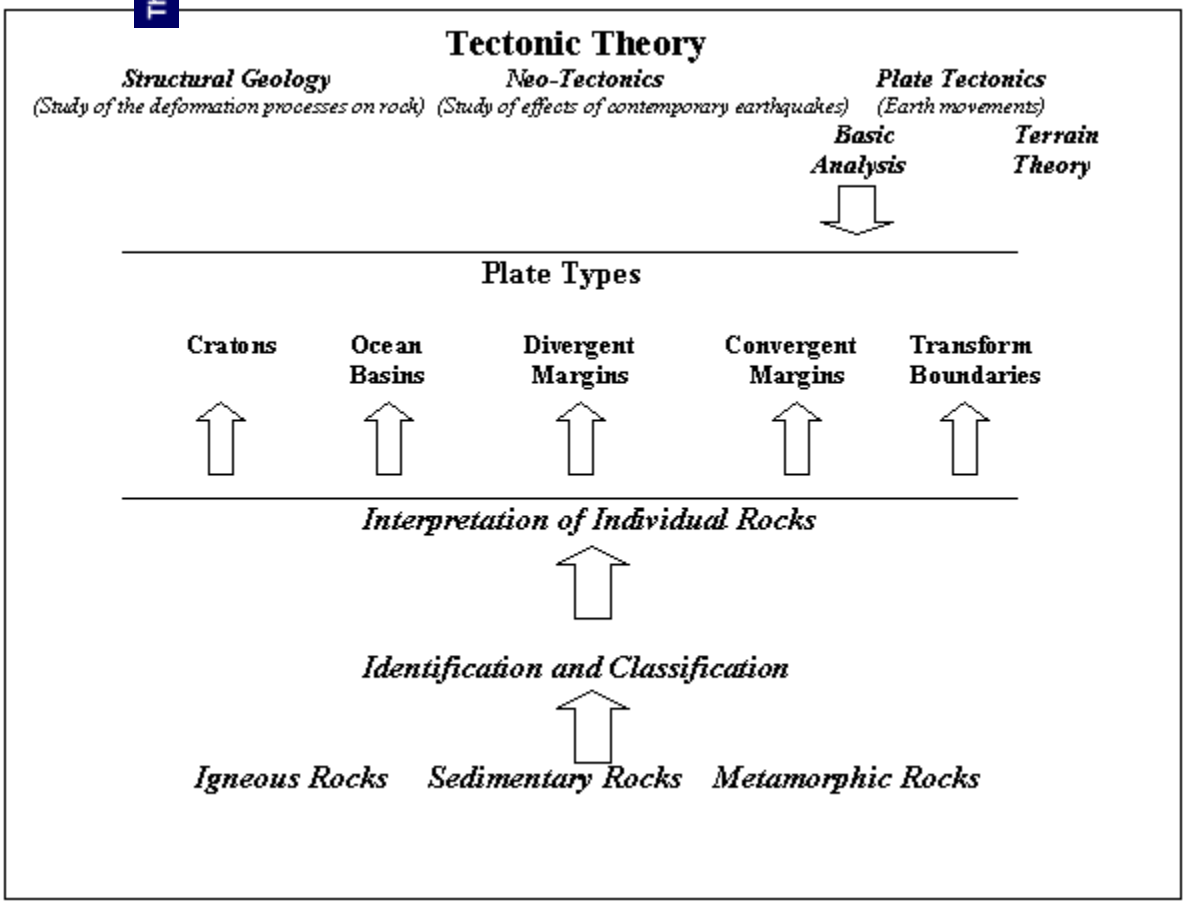
What Is a T ory?

A theory is by definition a statement based on a logical group of observations used to explain a group of observable facts. Newton's theory of gravitation is such an example. However, just because we have a theory does not mean it is the truth.

History is filled abandoned theories. The fact is that theories are vulnerable and can be revised or abandoned by new observations. This is exactly what happened in 1 when virtually every geologist in the world was convinced that the continents were fixed in their current positions. Facts emerged and this belie has given way e current theory of plate tectonics.

Theories are b rom the bottom up through inductive reasoning logically classifying thousands of individual bits of evidence and ordering them into categories plate types an -down deductive reasoning until a hypothesis is fashioned.



Once a theory of plate tectonics emerged from the analysis of evidence, it became a powerful tool for understanding other parts of the Earth. Through geological analysis, the types of plates may be classified.

Less than 100 years ago most people thought that the continents were fixed and unmovable. The reasons for earthquakes and mountain ranges were still unexplained. Slowly, from scientific observations and paleontological evidence, the reasons for these natural phenomena became clearer.

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