NOTES- How Old are Rocks?

RELATIVE AGE	ABSOLUTE AGE
• CAMPARED TO OTHER ROCKS	• ACTUAL AGE
• **Law of Superposition**	• **Radioactive Decay**
	Radioactive materials have specific half-life
• Oldest layer on the bottom and youngest on the top	-You can use the half-life and the ratio of radioactive and non-radioactive materials to determine age of rocks

Relative and Absolute Dating:

Relative Age- age of rocks compared to the ages of other rocks

A. **Law of superposition**-in horizontal rock layers the oldest layer is at the bottom and they get younger as you go up
B. **Law of original horizontality-** sedimentary rock layers are deposited horizontally. Any tilting occurs afterwards. **(vertical)**

C. **Other clues to rock ages:**
   1. **Intrutions** – magma that cuts through rock layers. The magma is younger than the rocks it cuts through
   2. **Extrutions –** magma that has sedimentary rock layers deposited above it. **(horizontal)**

Absolute Age-

A. **The number of years since a rock formed (close to exact age)**
B. **Radioactive Decay**- when atoms of one element breakdown to form atoms of another element. **(parent material to daughter material)**
C. **Half-Life** – the time required for one half of any original number of parent atoms to **decay into daughter atoms**
D. **Elements often used are carbon**-14, uranium

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