**Relative dating**

*Stratigraphy*

* The study of rock layers (strata) and the layering of rocks (stratification)
* **Law of superposition** = the top layers are younger than those beneath them
* **Correlation of strata** = matching layers of rock from different areas
* **Index fossils** = fossils that were widespread but were only found on Earth for a limited period of time. Enables relative dating of strata to be more precise

*Fluorine dating*

* Fluoride ions present in water will replace the ions in bones
* If all the fossils are of the same age, they should have the same levels of fluorine
* The older the fossil, the more fluorine it will have
* **Limitations**

-amount of fluorine in water varies significantly over time and location

-fossils need to be from the same area

-relative dating of fossils within an area only

-there is an inverse relationship with nitrogen and fluorine