

# RELATIVE DATING RULES

17th Century geologist Nicolas Steno's four fundamental laws about rock layers used in relative dating.

## LAW OF SUPERPOSITION

In a sequence of rock strata, older layers lie beneath younger layers.

## LAW OF ORIGINAL HORIZONTALITY

Sediments are deposited by gravity in FLAT LAYERS.

Layers that are TILTED or compressed have been acted upon by geologic forces.

## LAW OF CROSS-CUTTING

INTRUSIVE MAGMA : YOUNGEST ROCK

YOUNGER THAN

YOUNGER THAN

OLDEST LAYER

If a rock layer is cut by a fault or by magma pushing into it, the rock that is cut must be older than the rock that cuts it.

## LAW OF LATERAL CONTINUITY

Rock layers extend in all directions horizontally unless something stops them or erodes them.

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