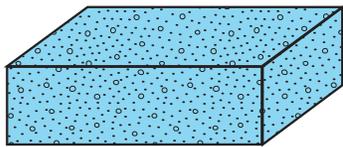
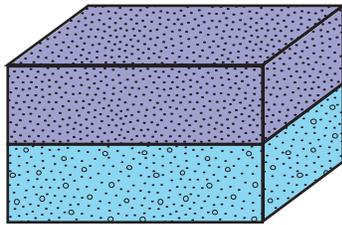


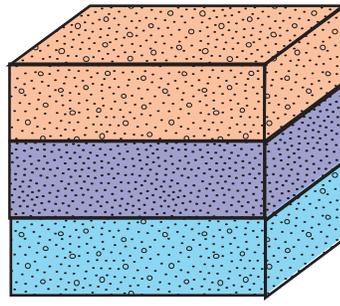
# SUPERPOSITION



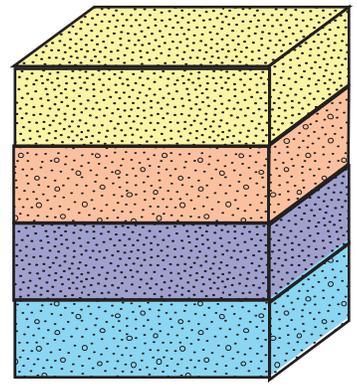
sediment deposited



more sediment deposited



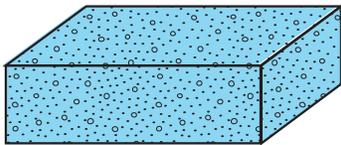
more sediment deposited



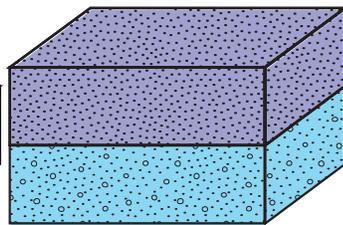
more sediment deposited

Almost all sedimentary rocks formed from deposits of sediment at the surface of the Earth. Once a sedimentary bed has been deposited, new sediment settles on top of it. Thus, in undisturbed strata, the oldest sedimentary rocks will be on the bottom of the stack. Applies only to sedimentary rocks and some volcanic rocks.

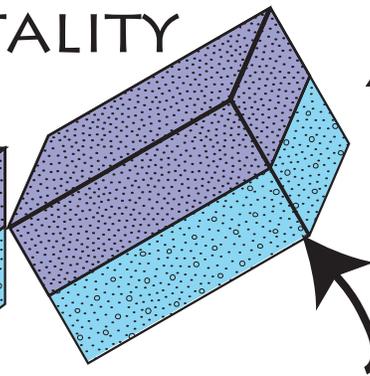
# ORIGINAL HORIZONTALITY



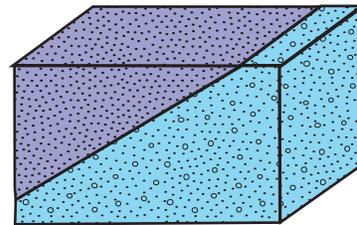
sediment deposited



more sediment deposited and lithified to form sedimentary rock



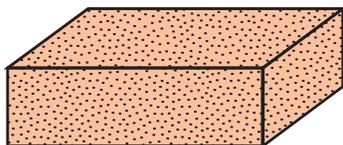
rocks deformed by tectonic stress



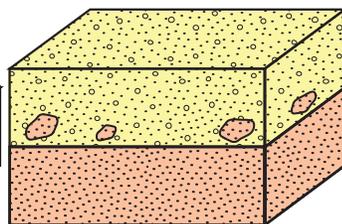
rocks uplifted and eroded

Almost all sedimentary rocks formed from basically horizontal deposits of sediment. Thus any sedimentary rock unit that is no longer parallel to the Earth's surface had to have been deformed (tilted or folded) after it was lithified. Applies only to sedimentary rocks and some volcanic rocks.

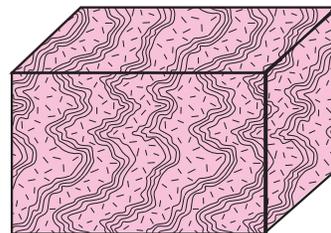
# INCLUSION



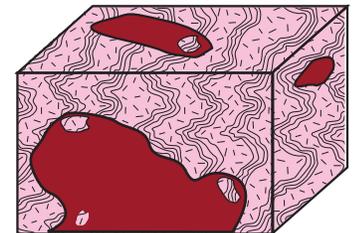
sediment deposited and lithified



Later, clasts derived from the lower unit are included in the next later of sediment



Any rock in the Earth's crust



Magma intrudes, picking up inclusions from the surrounding rock, then cools to form igneous rocks with inclusions

Some rocks contain broken pieces of other rocks (called inclusions or clasts). The rock that supplied the inclusions must have already existed at the time the rock containing the inclusions formed. Thus, the included rock is from an older rock. Applies primarily to igneous intrusions and sedimentary rocks.

# CROSS-CUTTING RELATIONSHIP

Some geological events (e.g., erosion, igneous intrusion and faulting) can cut across and partially obliterate other structures. The feature that is cut must have already existed when the cutting event. Thus the feature that cuts is younger than the feature(s) that is cut. *ONLY applies faults, intrusions and unconformities.*

