WORD BANK:

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Abrasion: gradual wearing off of small fragments of rock by windblown sand, moving water, or glacial ice.

Absolute age: actual age of rocks or fossils. Use carbon dating and dating techniques.

Basin: a low area that water flows to. Usually a swamp or wetland, that allows water to seep into ground.

Billion:1,000,000,000
A larger portion of the geological timeline. Example- The earth is 4.5 billion years old

Correlation:to find a relationship or connection between rock layers from two or more locations.

Compaction: process that forms sedimentary rock when layers of small sediments are compressed by weight of layers above.

Deposition:(verb: Deposit)- is the settling out of eroded earth material, usually in standing water or low areas.

Differential erosion: occurs where a mountain or plateau is made out of both soft, weak rocks and harder, more resistant rocks. The weaker rocks wear away faster, leaving behind knobs and cliffs of more resistant rocks.

Environment: temperatures and climates create the landscape and things that are able to inhabit it. Our environments are Desert/Windblown, Marine/Ocean, and Swamp/Floodplain in this unit.

Eon:the largest division of time. This is broken down into smaller categories.

Era: general spans of time based on the life existing during that time. Examples: Paleozoic, Cenozoic, & Mesozoic

Erosion:(verb Erode) - the removal and transportation of loose earth material

Fossil: preserved remains, imprints, or traces of an organism.

Fossil Record: a list of fossils discoverd from locations over the entire planet. Show environment and time in history that they existed.

Fossil Succession:
-The kinds of animals and plants found as fossils change through time.
-When we find the same fossils in rocks from different locations, we know that the rocks are the same age.

Formation:
a rock layer that is composed of more than one rock type, but the types and sequence of rocks can be recognized from one location to another

Geological Time: the history of the earth broken down into Eons, Eras, Periods, and Epochs

Grand Canyon: an exposed example of sedimentary rocks, that make up the Colorado Plateau. The river has exposed the layers as it erodes s away the layers.

Index Fossil:-provide information about the *age* of rock layers. (Milli Vanilli)
-An index fossil must have lived:
*For a relatively short amount of time (1 million years)
*Lived in many places around the world
- NOT all fossils are index fossils

Law of original Horizontality:
when particles (sand, clay, silt,...) settle out of water or air, they form horizontal layers & If sedimentary rocks are no longer horizontal, something has happened to them.

Law of Superposition: In the sequence of sedimentary rocks,a given layer must be *older* than any layer *on top* of it. The bottom layer is older than the top layer.

Limestone: a sedimentary rock that forms in mostly marine (ocean) environments. Composed of Calcite (fizzes when in contact of acid) shells from sea creatures, and other materials that fall to ocean floor. Hardest of the sedimentary rocks.

Matrix: a glue, cement, or bonding agent that holds materials together.

Million: 1,000,000
Refers to a smaller amount of time on the geological timeline.

Models: representations or simulations of the real thing. Attempts to recreate what happens in nature.

Observations:performing physical tests and comparing rock layers to one another.

Plateau: a large, nearly level area of land that has been uplifted or elevated around the surrounding area.

Period:shorter spans of time based on evidence of major disturbances in the earth's crust and rock formations.

Principle of Uniformitarianism: Geologists assume the processes of erosion and deposition that we see happening *today* worked exactly the same way throughout geological time.
"The present is the key to the past."

Precipitate: a solid, that forms out of a liquid, and falls out of suspesion (settles to the bottom)

Relative time: Comparing the age of one rock layer to another. Example- the top layer is younger than the bottom layer.

Rock Column: a sequence of rocks that show up in a specific order. The top layer is exposed at the surface in that area.

Rock Layers: Beds of solid rock, that have been created horizontally, when sediments settle out and are compacted.

Rounding:a result of erosion, rounding gives us an idea of how far a particle has traveled from its source.

Sandstone: a sedimentary rock that is formed from particles of sand, that have been compressed and glued together by a matrix, made of sodium silicate. Forms in deserts and beaches (windblown) and some basins/low areas.

Sediments: are the particles of earth material that settled out of water. They settle into horizontal layers.

Shale: a sedimentary rock. This is formed from finer particles of silt and clay. It is formed by layers being compressed, and hardens in the absence of water. Forms in swamps and low areas, weakest of the sedimentary rocks. Has NO matrix.

Sorting: particles can be poorly sorted to very well sorted. The better sorted materials have traveled a greater distance and also how the were moved (wind, water, ice, ...)

Stream tables: a model of a river or a mountain stream that simulates how different sizes of particles are eroded. The faster the water and steeper the angle of incline = more erosion.

Unconformity:-An interruption in the normal sequence of deposition of sedimentary rocks and other kinds of rocks.
The unconformities you have discovered happened either because -->
1. No rocks were deposited
2. The rocks that were deposited eroded away before the next layer was deposited.

Weathering: Due to the affects of water, ice, plants, animals , and chemical breakdown; rocks break into smaller and smaller pieces until they form sand, silt, or clay. (Physical or chemical weathering)