# Objectives: S.W.B.A.T.

- Define sedimentary rock
- Name 2 main processes that form sedimentary rocks
- Name some examples of sedimentary rocks
- Name a characteristic of sedimentary rocks
- Discuss how are rocks are used in their lives

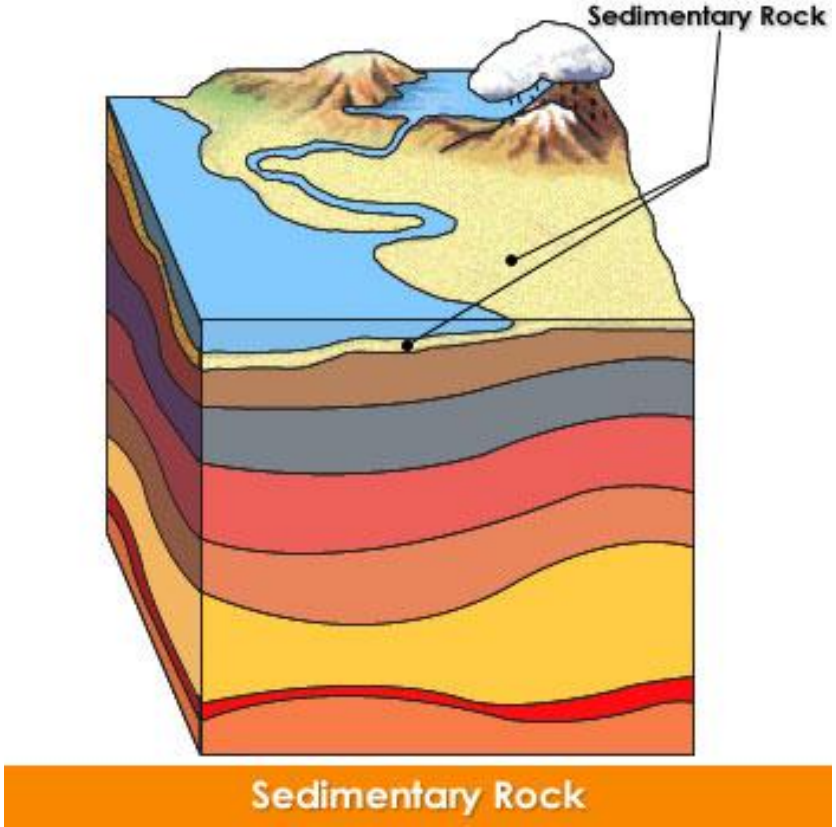
# Activities:

- Warm-up
- Demonstration – student-teacher sedimentary rock formations
- Notes/discussions
- Video – Out of the Rock

# SEDIMENTARY ROCK:

## SEDIMENTARY ROCKS

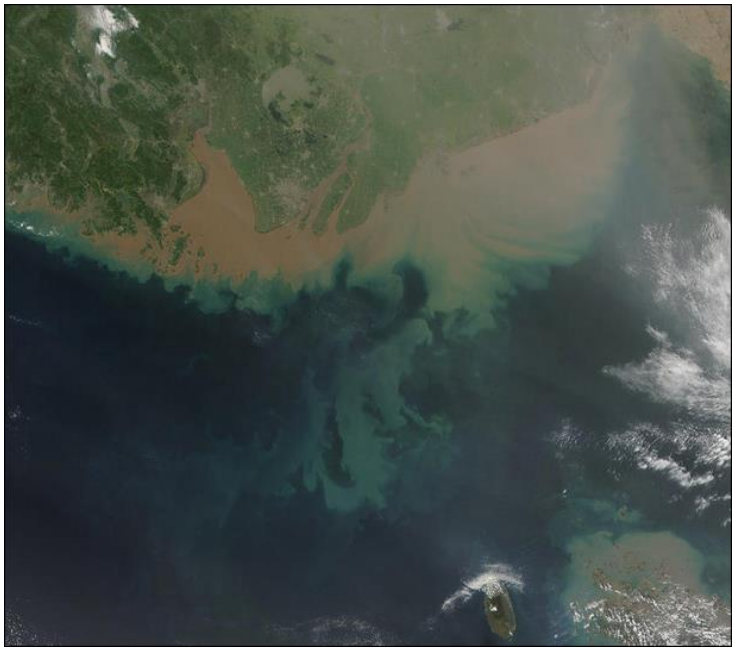
Sedimentary rocks cover 75% of the surface of Earth.



# SEDIMENTARY ROCK:

They unlock clues to the past!

- If sedimentary rocks are common in a region it was probably under water at one time.

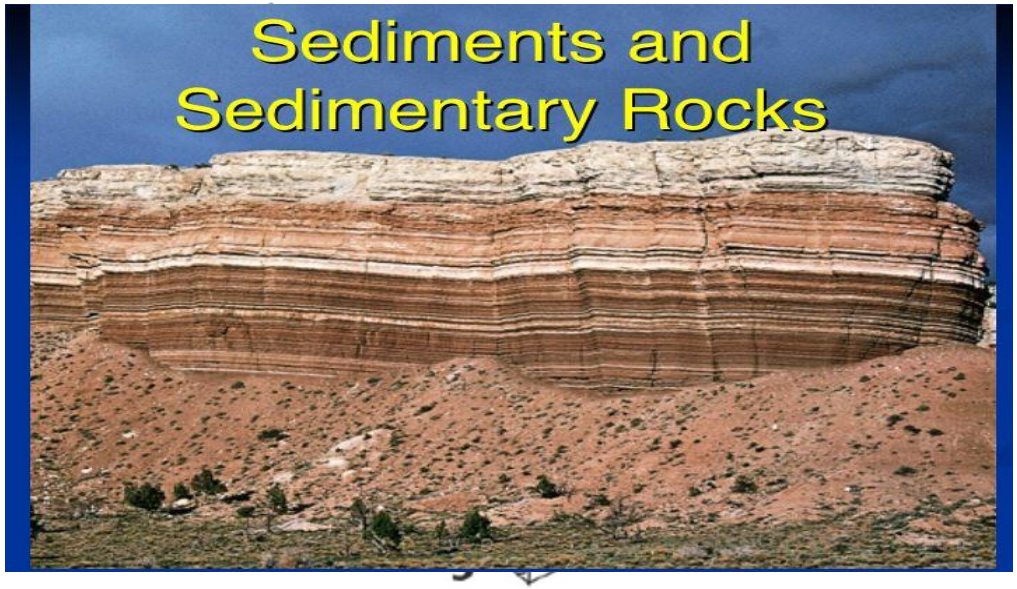


# SEDIMENTARY ROCK:

## FORMATION OF SEDIMENTARY ROCKS

### Step 1:

Sediments are deposited by water, wind, ice, etc, and are buried.

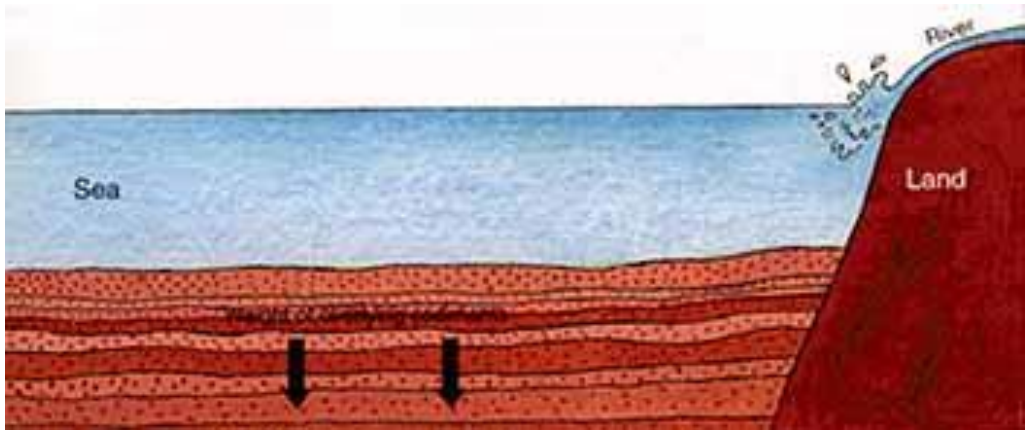


# SEDIMENTARY ROCK:

**Step 2:**

Compaction and/or Cementation

**Compaction** is the decrease in volume brought about by pressure.



# SEDIMENTARY ROCK:

| | |
|---|---|
| | COMPACTION |
| | SAND |
| Siltstone | ← SILT |
| Shale | ← CLAY |
| Sandstone | ← SAND |
| Conglomerate | ← GRAVEL – PEBBLES |

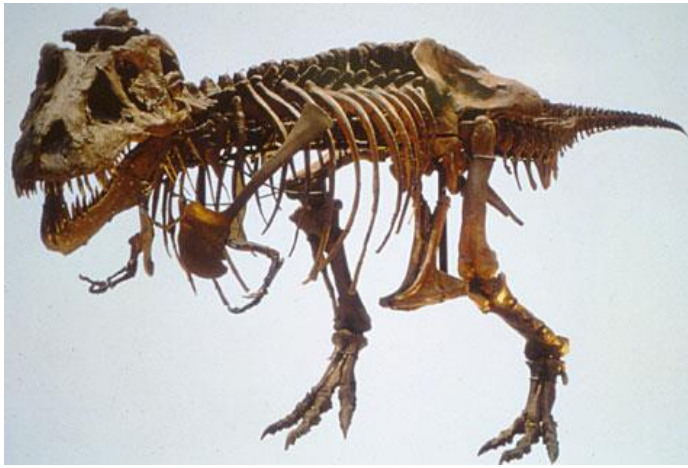
# SEDIMENTARY ROCK:

**Cementation** is the process by which sediments are joined **(glued)** together to form rock.

# SEDIMENTARY ROCK:

## Characteristics of Sedimentary rocks

1. Visible Layers



2. May contain fossils

3. May contain ripple marks

4. May contain mud cracks

# SEDIMENTARY ROCK:

## TYPES OF SEDIMENT AND SIZES

| | | |
|---|---|---|
| Large | Gravel & Pebbles > 2 mm | Coarse Grain |
| | Sand > 0.6-2 mm | |
| | Silt > .004 mm – .06 mm | |
| Small | Clay < .004 mm | Fine Grain |

# Sedimentary rocks