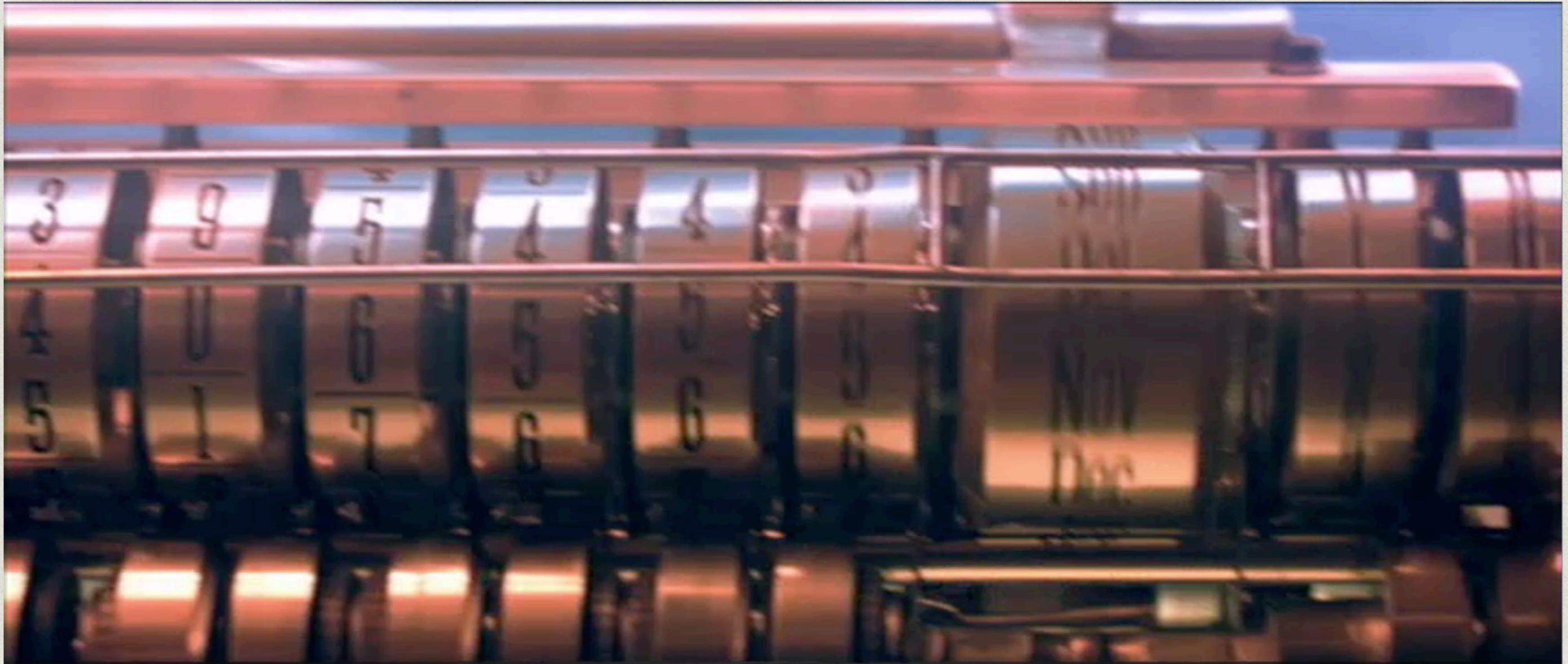




EROSION AND DEPOSITION

How are sediments moved and placed in a new location?

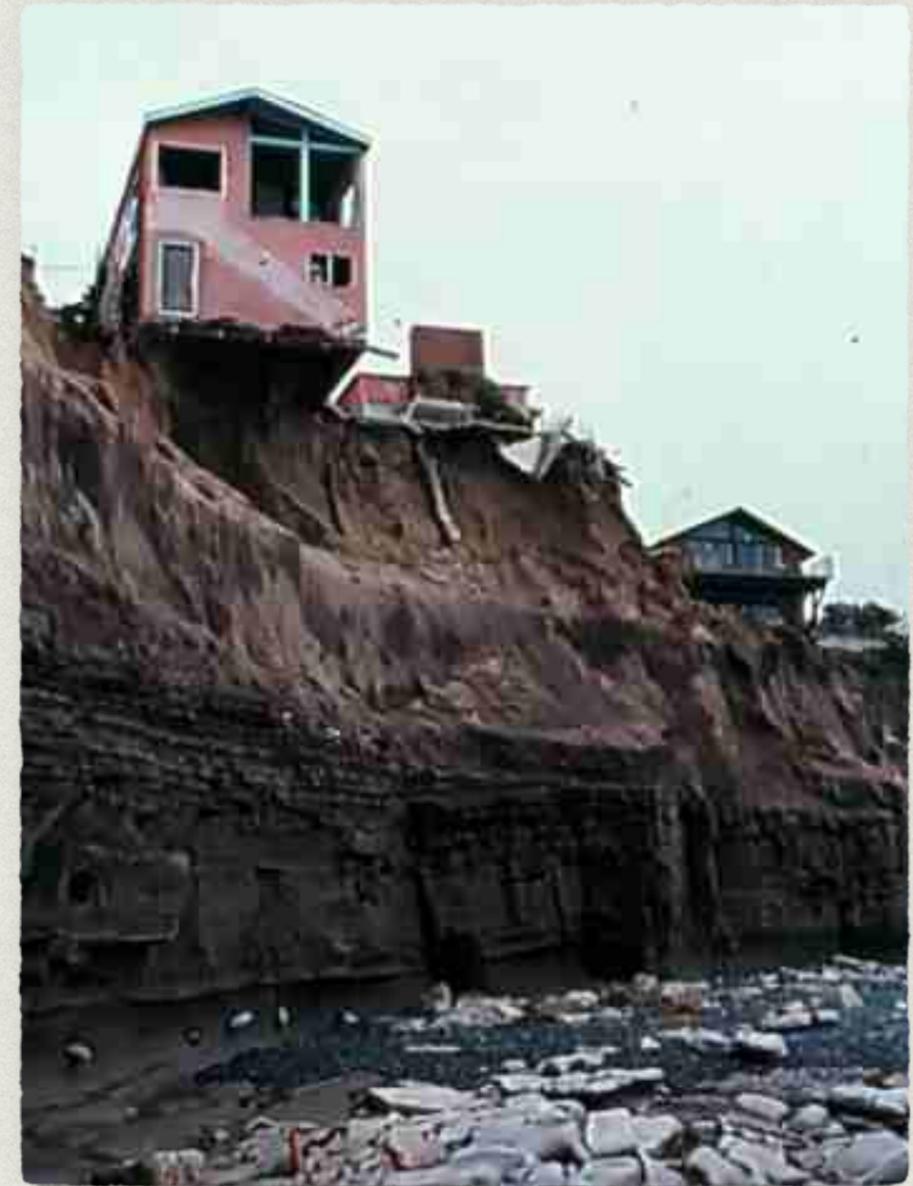
EROSION AND DEPOSITION



The Time Machine

EROSION AND DEPOSITION

- After rocks are broken up from weathering they need to be moved
- Erosion - process where particles are transported as sediment
 - Over time erosion helps shape and lower all surface features



EROSION AND DEPOSITION

- Agents of Erosion - forces that are set in motion by gravity that causes sediments to move



EROSION AND DEPOSITION

- Agents of Erosion [continued]:
 - Streams
 - Waves
 - Glaciers
 - Wind
 - Mass Movement



EROSION AND DEPOSITION



Streams

EROSION AND DEPOSITION



Waves

EROSION AND DEPOSITION



Glaciers

EROSION AND DEPOSITION



Wind

EROSION AND DEPOSITION



Mass Movement

EROSION AND DEPOSITION

- Gravity - direct role and force behind most agents of erosion
 - Causes rivers to flow, ice to move, and rocks to slide



EROSION AND DEPOSITION

- Sun - indirect role that drives the water cycle
 - Produces rain and fuels winds that drive ocean currents



EROSION AND DEPOSITION

- Deposition - the process by which sediments are released from an erosional system
 - Sediments are deposited in locations where they form layers of sedimentary rock

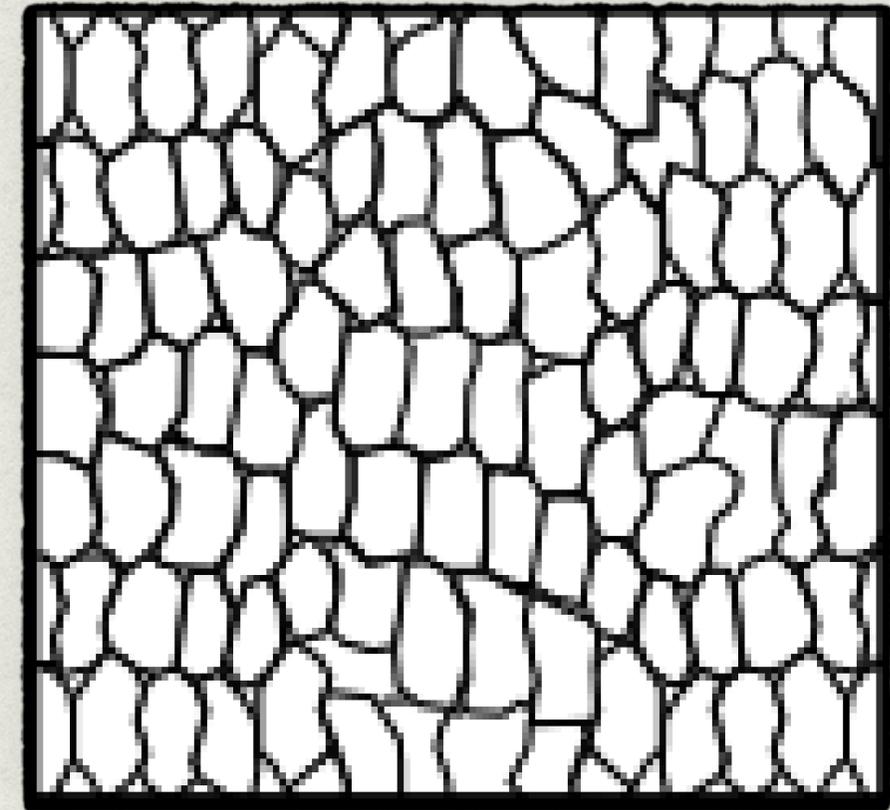


EROSION AND DEPOSITION

- The sediments determine how fast they are deposited:
 - Size - larger sediments will settle faster
 - Shape - rounder sediments settle faster and flatter sediment will take longer
 - Density - more dense sediment will settle faster

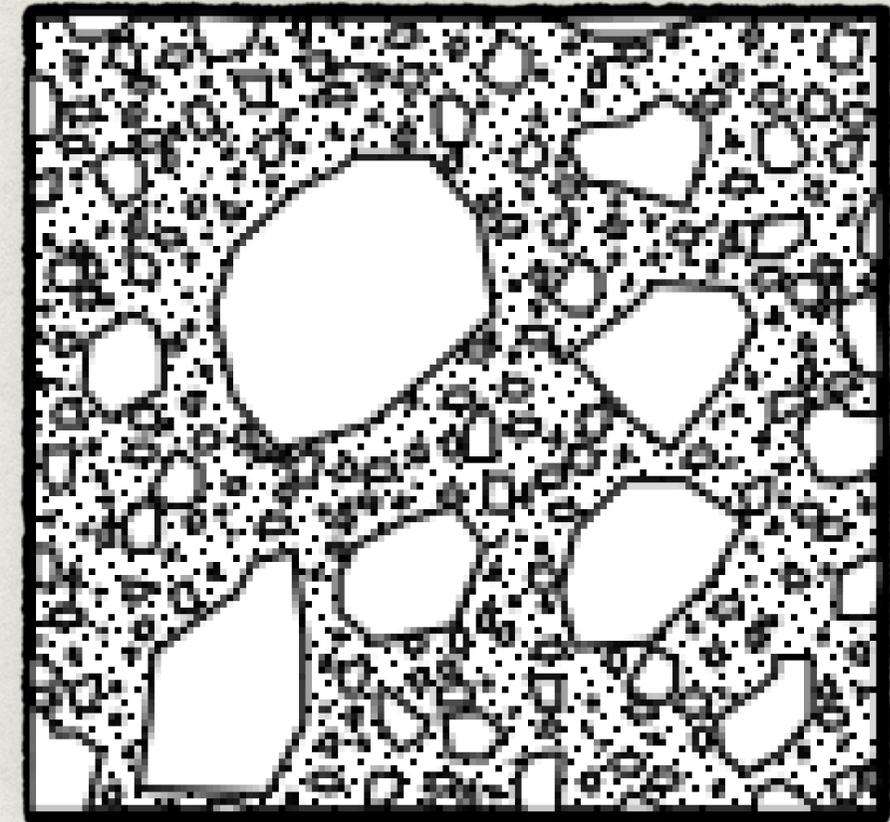
EROSION AND DEPOSITION

- Sorted Sediment - layers of sediment that are similar in size, shape or density
 - Example: deposition from a stream



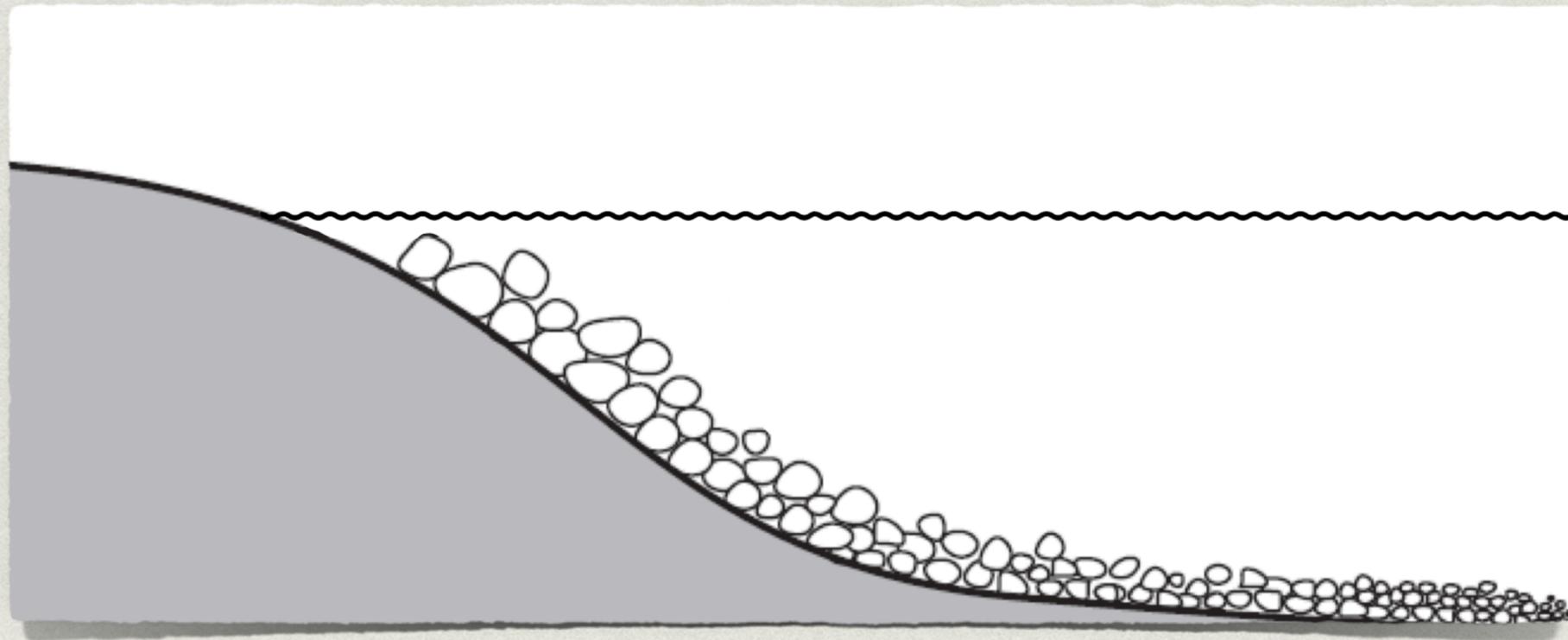
EROSION AND DEPOSITION

- Unsorted Sediment - layers of sediment that are mixed in size, shape or density
 - Example: deposition from a glacier



EROSION AND DEPOSITION

- Horizontal Sorting - when the velocity of a wind or water erosional system gradually decreases; the size, roundness, and density gradually decrease as you move farther out

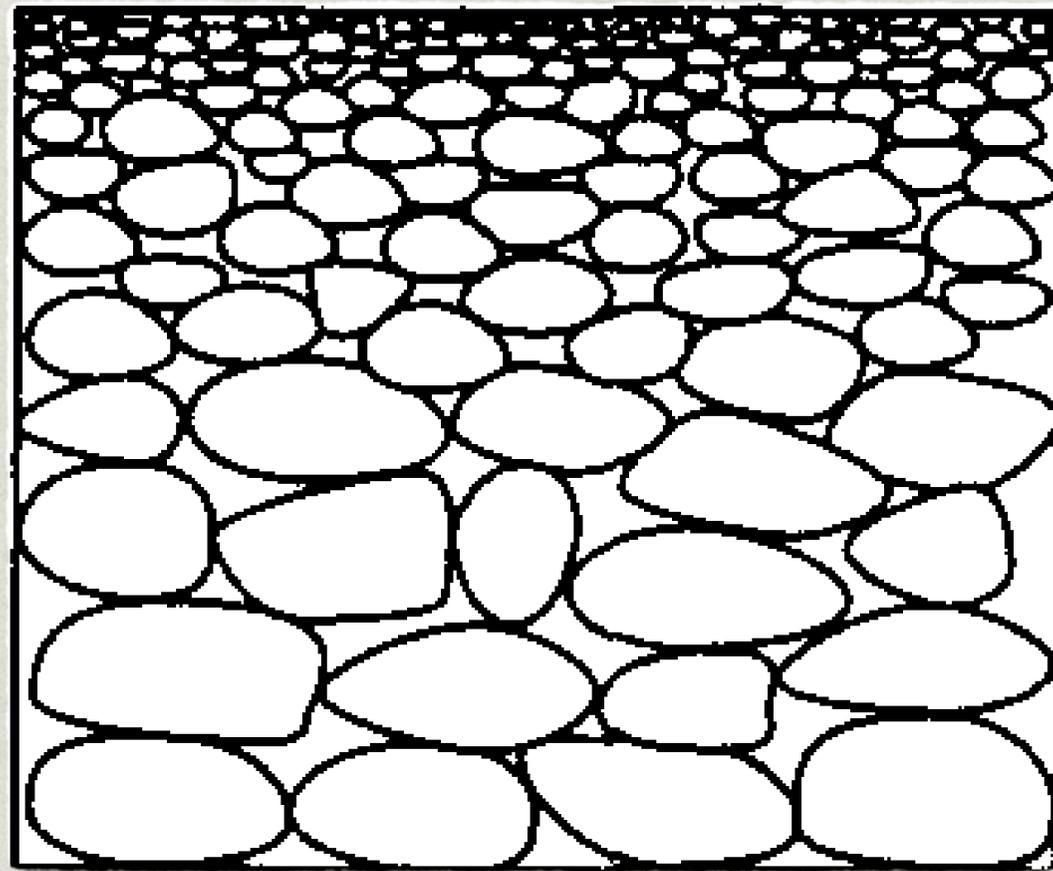


EROSION AND DEPOSITION

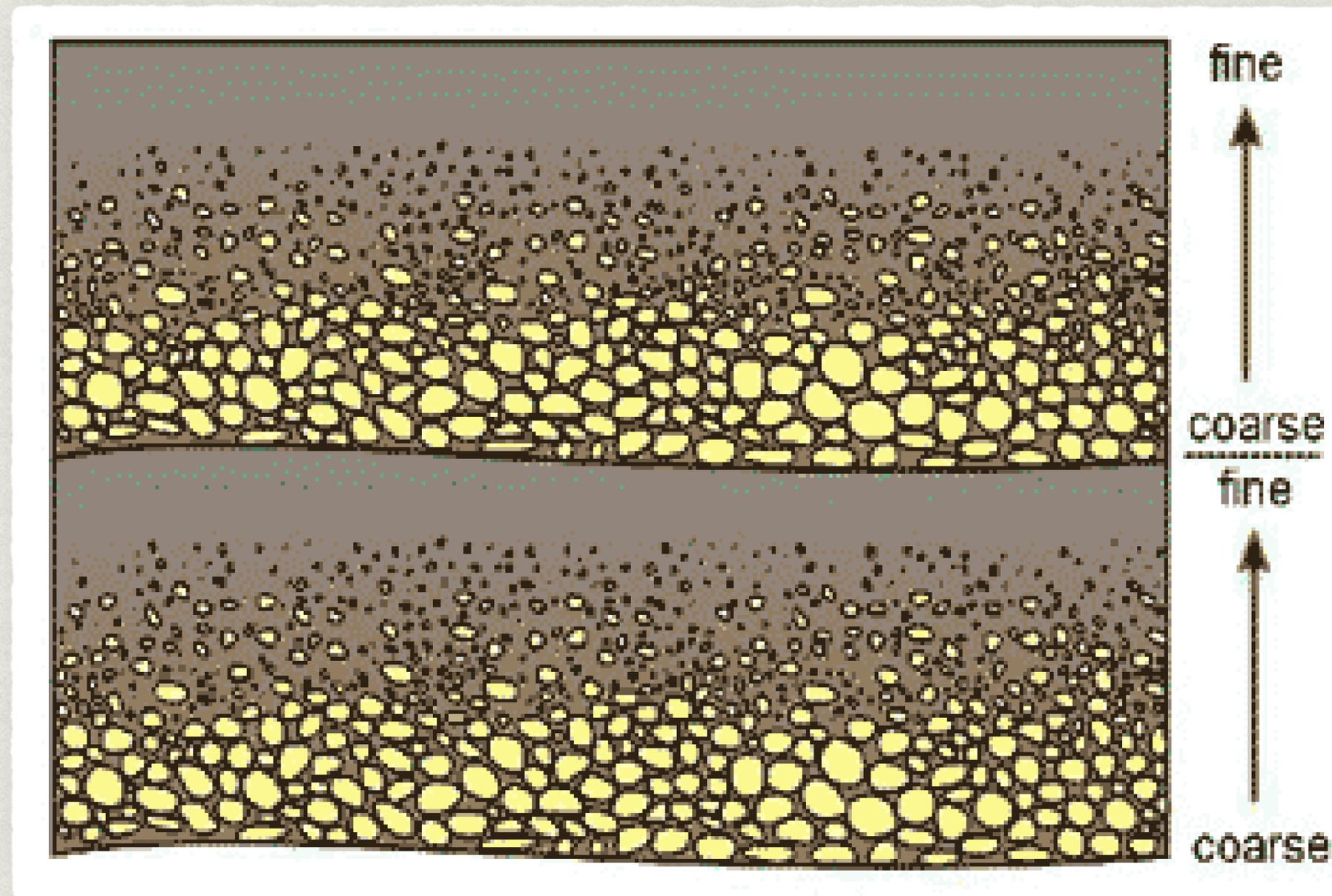
- Vertical Sorting - larger or more dense sediments settle to the bottom first, followed by decreasing size and density
 - Example: as a stream slows down throughout the year it can no longer transport larger material and begins to deposit the sediments according to size order

EROSION AND DEPOSITION

- Vertical Sorting [continued]



EROSION AND DEPOSITION



Vertical Sorting