MASS MOVEMENT, WIND & WAVES

How does mass movement, wind and waves help shape Earth?
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- Mass Movement - the pulling of rock and sediment downhill by the force of gravity
- Characteristics: unsorted sediment
Examples: avalanches, landslides and/or mudslides
Mass movement involves two forces:

- **Gravity** - the force of attraction where objects fall towards the center of the Earth

- **Friction** - the rubbing of one object against another

When rain weakens the force of friction gravity then pulls rock and sediment down a slope
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Wind - air that is moving horizontally that transports loose sediments [sands and silts] to a new location
Deflation - wind blows away loose sediment lowering the land surface until there is no more loose sediment to erode.
**Abrasion** - wind picks up and blows smaller sediment against another surface wearing it down
Sand Dune - depositional feature when sand is deposited in layers or mounds

- Windward side: gentle slope
- Leeward side: steep slope
Waves - the up and down motion of water in the ocean or lake; usually caused by wind.

As wind pushes a wave towards the shore, it drags along the bottom of the ocean floor.

The dragging slows the bottom of the wave, but the top continues at the same speed.

Eventually the wave becomes unstable and “breaks”.
Wave Formation:

- As wind pushes a wave towards the shore, it drags along the ocean floor.
- The dragging slows the bottom of the wave, but the top continues at the same speed.
- Eventually the wave becomes unstable and "breaks"
Waves approach the shore at an angle, but retreat parallel to the shore, creating a zigzag pattern.
The zigzag pattern carries sand parallel to the shore
• **Long Shore Current** - ocean current that flows parallel and close to the shore
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Diagram showing long shore transport, updrift build-up (accretion), and downdrift side of groin.
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