

Waves and Tides



What are Waves?

➤ Wave:

- Are movements of water that are caused by wind or underwater earthquakes.
- The energy in a wave moves forward.



What are the Parts of a Wave?

➤ Crest

- Highest part of the wave

➤ Trough

- Lowest part of the wave

➤ Break

- When the trough of a wave gets close to land, it starts to drag while the crest moves on, getting higher and higher until it tumbles over.

What are the Parts of a Wave?

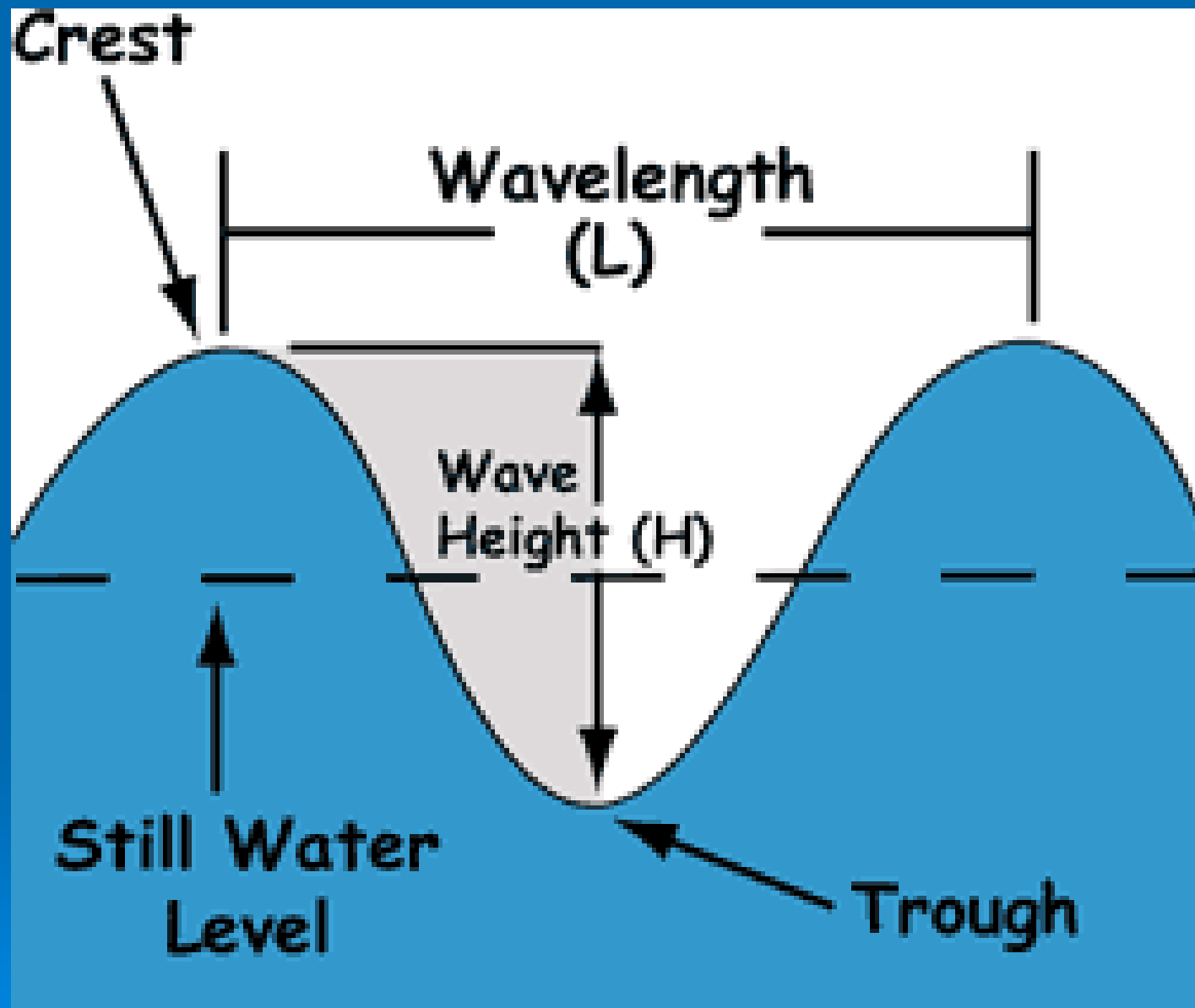
➤ Wave height

- The distance from the trough to the crest

➤ Wavelength

- The distance from crest to crest or from trough to trough





direction of wind

upper layer
of air sinks

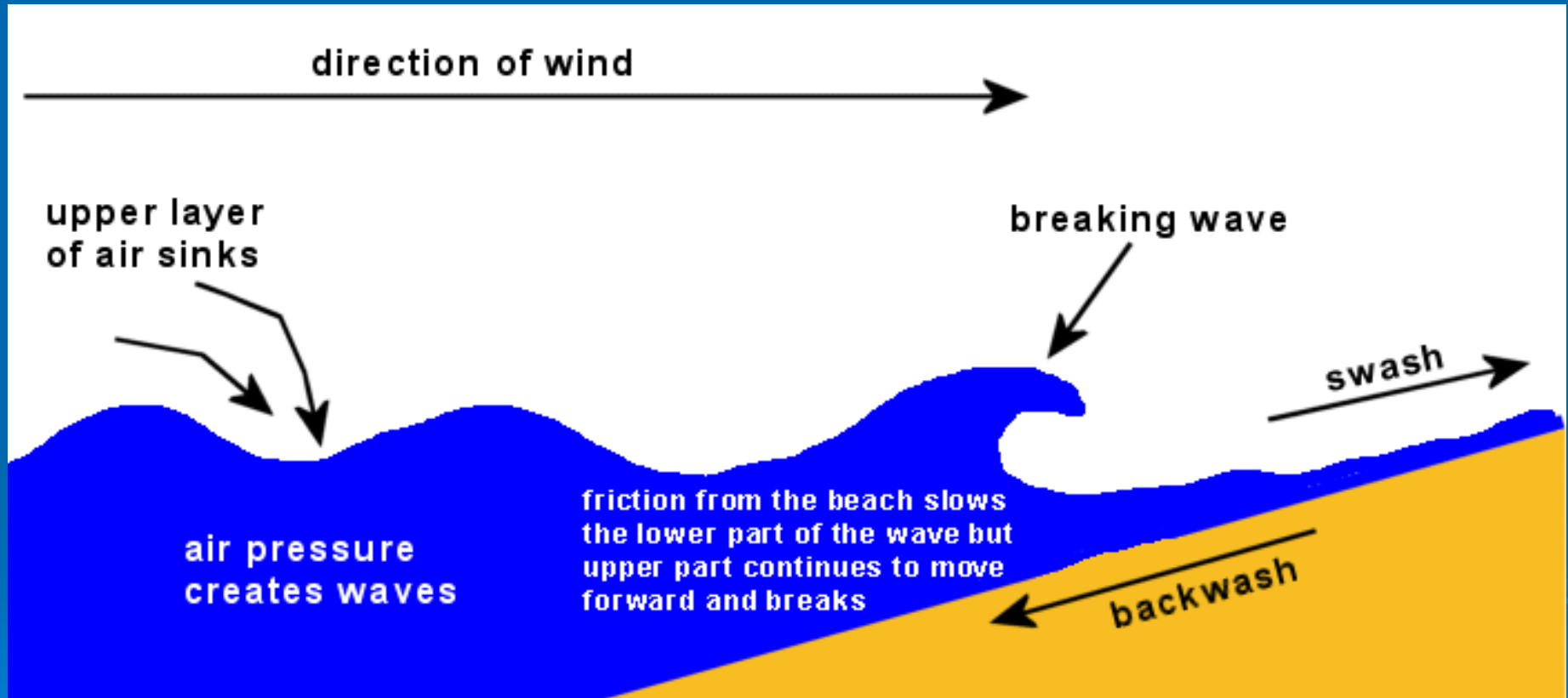
breaking wave

swash

air pressure
creates waves

friction from the beach slows
the lower part of the wave but
upper part continues to move
forward and breaks

backwash



What are gigantic waves called?

➤ Tsunami

- A giant wave created by shock waves from earthquakes or volcanic activity at the bottom of the ocean.



What are tides?

➤ Tides

- The regular rising and falling of the sea level
- Tides occur twice in 24 hours
- High Tide
 - The shore is covered with water
- Low Tide
 - The shore is not covered with water



What causes the tides?

➤ Cause

- The gravity from the moon tries to pull the earth toward it.
- This pull causes the surface of the ocean to bulge toward the moon.



