

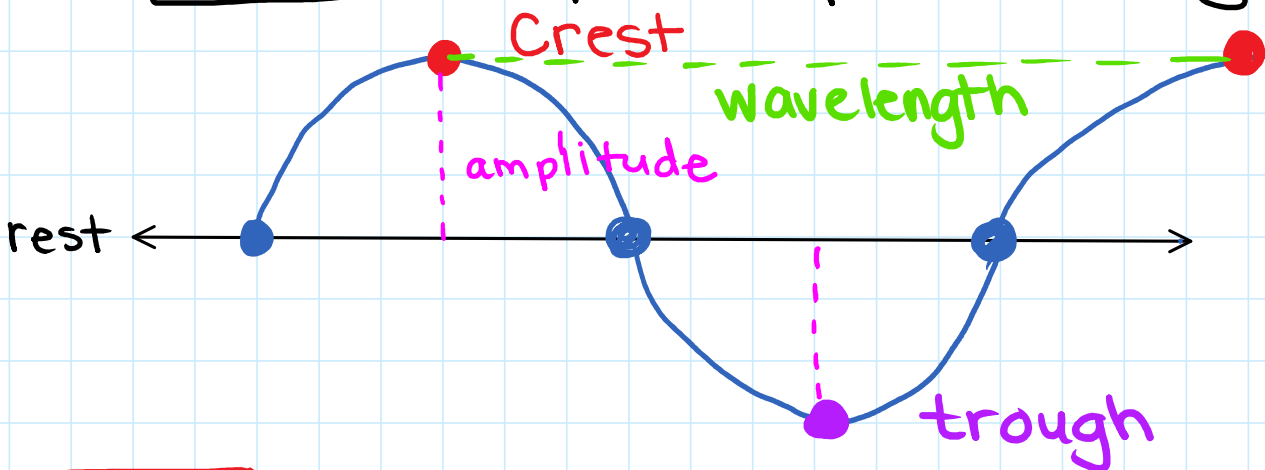
## 3.2 Waves

May 25, 2018 10:25 AM

(air, rocks, water)  
Waves travel through  $\uparrow$   
they do not move them

- A **wave** transfers energy through space without causing "permanent displacement"
- **energy** is the capacity to apply force over a distance

- **force** is a push or pull on an object



- crest** highest point on a wave
- trough** lowest point on a wave
- wavelength** distance from crest to crest (or trough to trough)
- amplitude** height of a crest (or depth of a trough) from rest position

- **Frequency** is the number of motions in a given time. It is measured in **Hertz (Hz)**  
★ the shorter the wave length,

the greater the frequency.

- Two types of waves

① **Transverse**: move up and down

② **Compression**: move back and forth