

PHY100S - The Magic of Physics - Class 7

"Science is facts; just as houses are made of stones, so is science made of facts; but a pile of stones is not a house and a collection of facts is not necessarily science."

-- Poincare

ThermE at level of atoms & molecules!

gas! K_{in}E

liquid & solid! K_{in}E + ElastE

microscopic level! no friction

Entropy - measures disorder

Movies ① 2 billiard balls
colliding

movie backwards! just as
realistic.

② cue breaks rack of 15
backwards! not realistic

① reversible ② irreversible

CHAPTER 8

§ 8.1 - Waves

① travel through medium

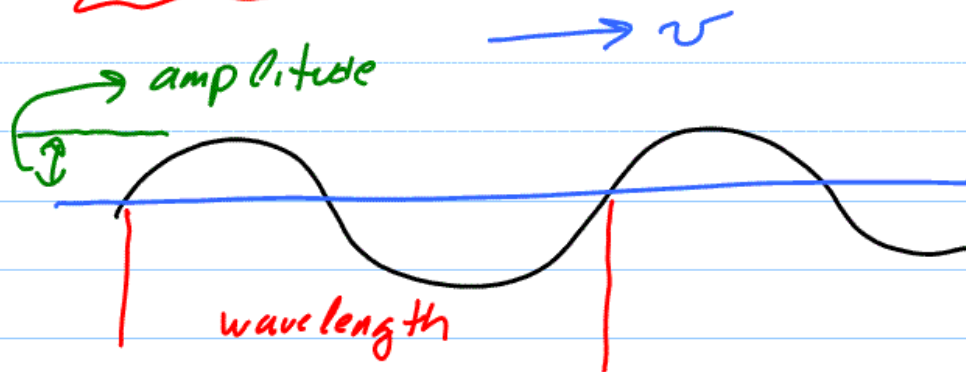
② transmit energy

One position - wave goes by us

frequency: oscillations/second

hertz Hz

One time



§8.2 Interference

§8.3 Light

Wave of something

§8.4 Electric Force

masses exert gravitational forces
on other masses

electric charge exerts electric forces
on other charges

2 kinds of charge:
"positive" & "negative"

[unlike attract
like repel