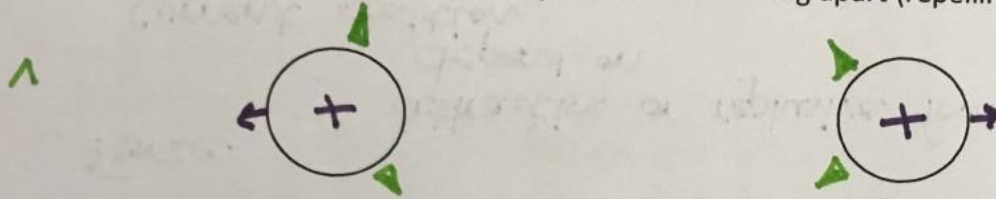


Act. 2.3 & 2.4 Wrap-up Notes

- Potential energy is Stored in the field of objects with electric or magnetic potential energy
 - Electrical potential deals with the type of electric charges built up in the field (+) or (-)
 - Magnetic potential deals with the position of magnets/poles
- If the electric or magnetic field is changed, it changes the amount of PE stored in the field
 - Field is affected by:
 1. Type of Charge or pole orientation
 2. The amount of charge built up on an object
 3. Distance between charged objects
- A Force is needed to have potential energy
 - There must be an attractive or repulsive force
 - The potential energy depend on the force needed to keep the object *in its* current position

• Amount of energy in field depends on position & charge of 2 objects

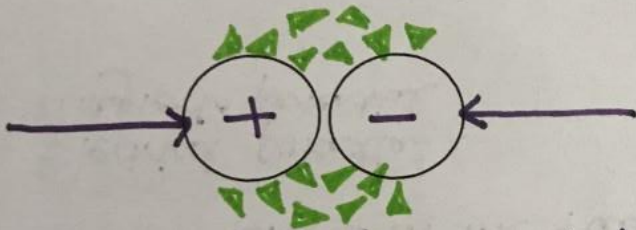
- 2 Same objects must have a large distance difference to have low potential energy stored in field
 - Likes repel
 - A force is needed to keep them from moving apart (repelling)



▲ force field weak,
Very little energy
stored in field,
no motion

- 2 opposite objects must have a small distance difference to have low potential energy stored in field

- opposites attract
- A force is needed to keep them from moving together



▲ Triangles close = stronger field
- no motion, b/c field & forces are equal

*** Objects with built up energy in fields are most stable (not moving) when they have NO potential energy (Force = electric P.E.)