



# SIMPLE MACHINES

# A SIMPLE DEFINITION



- A simple machine is a machine that does work with only one movement.



- Examples
  - Inclined plane
  - Lever
  - Wheel and Axle
  - Pulley

# WHAT'S AN INCLINED PLANE



- An inclined plane is a ramp.



# WHAT'S A LEVER



- A lever is a rigid rod that rotates about a fixed point or fulcrum.





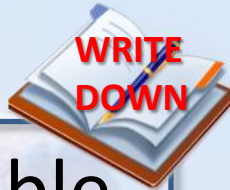
# WHAT'S A WHEEL AND AXLE



- A wheel and axle consists of two objects of different size attached in such a way that they rotate around the same axis.



# WHAT'S A PULLEY



- A pulley is a grooved wheel with rope or cable.

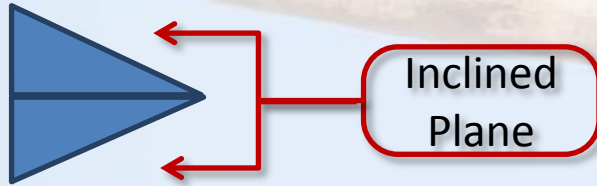


# OTHER SIMPLE MACHINES



## Wedge

- A wedge is similar to two inclined planes together.



## Screw

- A screw is similar to a wheel and axle with an inclined plane wrapped around it.

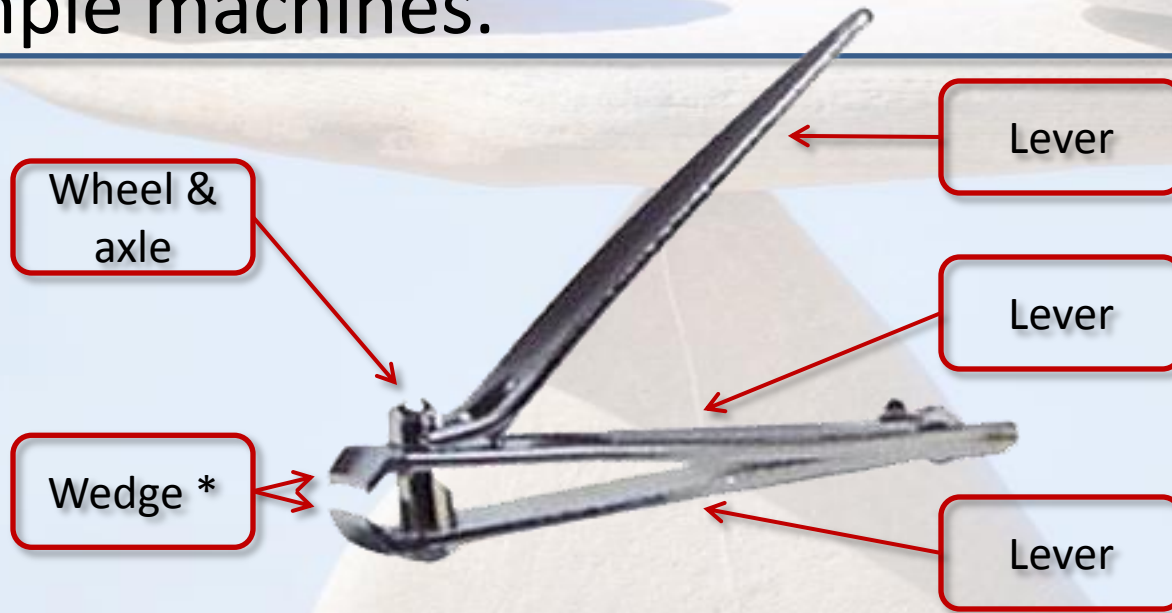




# A COMPOUND DEFINITION

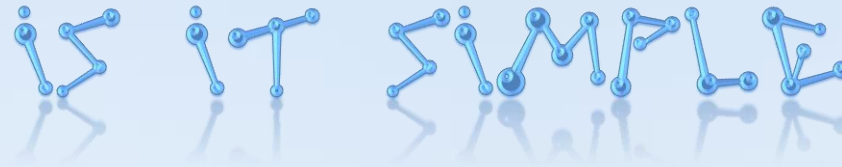


- A compound machine is combination of simple machines.

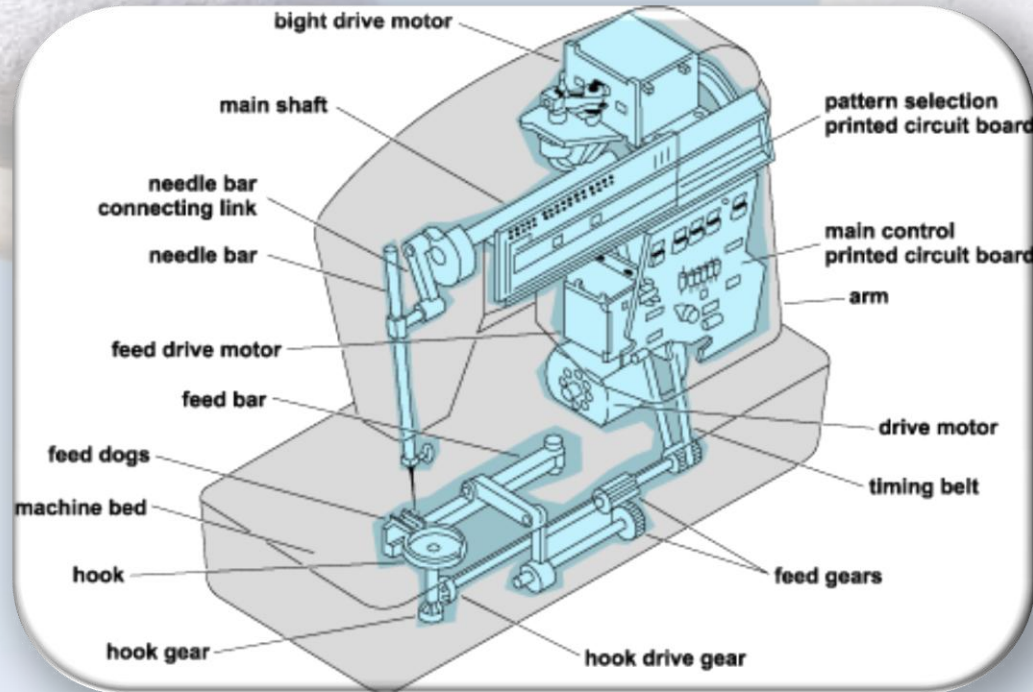


\* A wedge is a combination of two inclined planes





- Examine the diagram of the sewing machine below.



- There are lots of parts that move in all different directions.
- All those separate parts make a sewing machine a compound machine. Can you identify the simple machines in it?