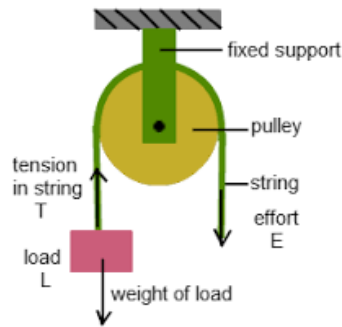


# Simple Machines: PULLEY STEAM CHALLENGE

**Objective:** To create a Pulley to decrease the amount of energy needed to lift an object.

**Materials:**

- String (Rope/ Shoe Lace)
- Fulcrum/ Pulley : (Thread Spindle, Rolling Pin, Can, Paper Towel Cardboard Roll)
- Load: (toy, book)
- Tape



**Directions:**

1. Tape the fulcrum or pulley to a fixed point that you want to use. This can be a wall or door.
2. Attach the load to one end of the string.
3. Hang the rope over the fulcrum, so the object is hanging from one side, and the effort side of the string is on the other side.
4. Pull on the loose end (the effort side)
5. Watch your object move up and down.
6. Attach a heavier object.
7. Repeat steps 2 through 5.

**Observations:**

1. Pulleys are simple machines that allow you to lift objects using less effort/ energy. How did your pulley help you raise your object?
  
2. Name 3 different examples of pulleys:  
Example: Flag Pole with Flag
  - 1.
  - 2.
  - 3.