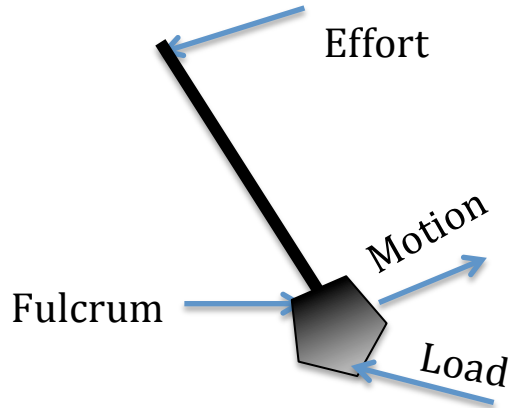


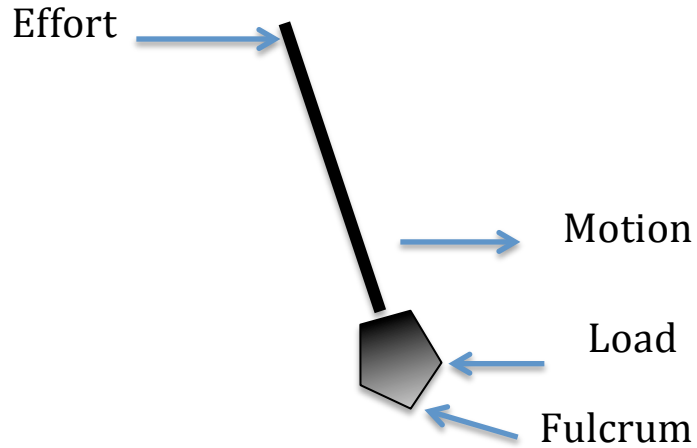
# Station One

## Shovel as Class One Lever

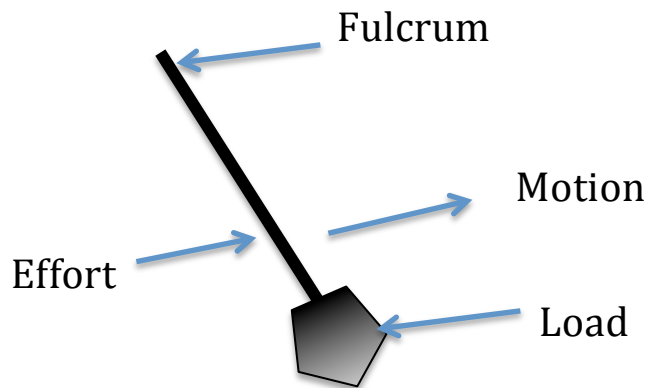


## Shovel as

## Class Two Lever



## Shovel as Class Three Lever



In this activity you will have a chance to use a shovel as an example of all three classes of levers.

### **1. Shovel as Class One Lever**

- a. Use your foot to push the tip of the shovel as deeply into the gravel pile as you can.
- b. Keep your foot on the shovel (your foot is at the fulcrum or turning point) and pull the end of the handle (point of force or effort) towards you.
- c. The 'spade' end of the shovel will lift the gravel (the load or resistance).

The motion of the load will be away from you.

### **2. Shovel as a Class Three Lever**

- a. Repeat steps a, b, and c from Shovel as Class One Lever
- b. Place one hand at the top of the handle (fulcrum)  
Place the other hand part way down (force or effort)
- c. Lift the gravel (load or resistance) and place it to one side.

### **3. Shovel as a Class Two Lever**

- a. Place tip of shovel (fulcrum) in the ground behind the rock with the back of the blade pressing against the rock.
- b. Press down with your foot on the top of the blade of the shovel to force it into the ground.
- c. Hold the handle near the top (effort) and push it away from you to move the rock (load or resistance).