#### **Forces**

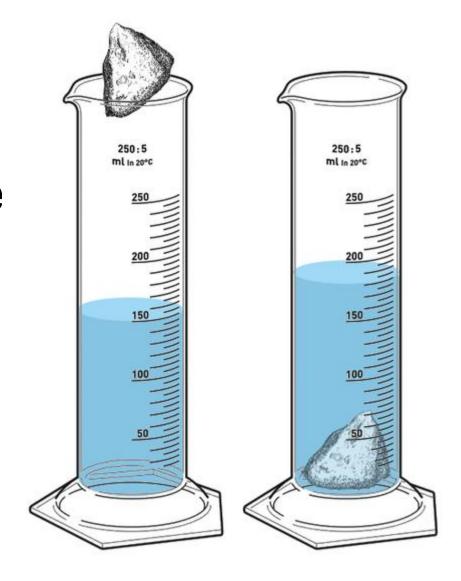
## A force is a push or a pull



Push Pull

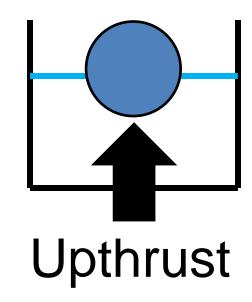
### **Displacement**

When an object is put into water, it displaces some of the water (it pushes it out of the way)



#### **Upthrust**

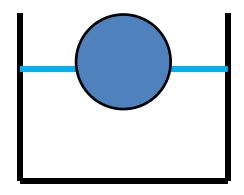
When the water is displaced, it tries to push back. The force this creates is called upthrust.



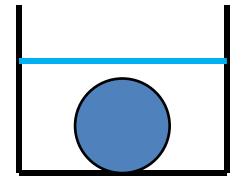
#### **Buoyant / Buoyancy**

If an object floats, we say:

- It is buoyant
- It has buoyancy



Buoyant Has buoyancy

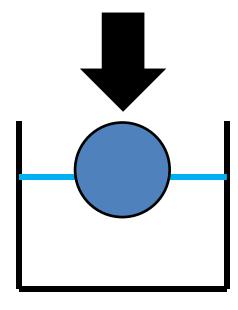


Not buoyant No buoyancy

### **Gravity**

# Gravity pulls things towards the centre of the Earth

Gravity

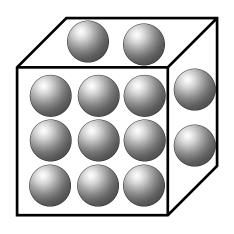


#### **Density**

Density is a measure of the amount of matter (stuff) in an object relative to its size.

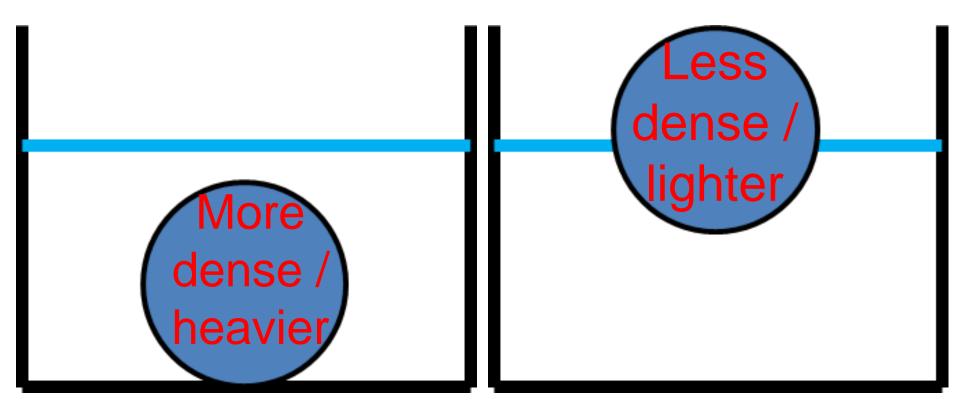
Less dense

More dense



#### Weight

If two objects are the same size and shape, but one is denser, then it will be heavier and more likely to sink



#### **Source of images**

Pull - <a href="https://commons.wikimedia.org/wiki/File:Tug\_o\_war\_(5798655160).jpg">https://commons.wikimedia.org/wiki/File:Tug\_o\_war\_(5798655160).jpg</a>

Push – <a href="https://pixabay.com/illustrations/struggle-push-uphill-battle-effort-1271657/">https://pixabay.com/illustrations/struggle-push-uphill-battle-effort-1271657/</a>

Displacement - <a href="https://commons.wikimedia.org/wiki/File:Displacement\_measurement.png">https://commons.wikimedia.org/wiki/File:Displacement\_measurement.png</a>