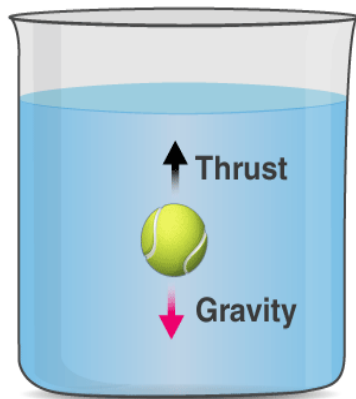


# Archimedes' Principle



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Archimedes' principle states that any object, wholly or partially submerged in a fluid, experiences a buoyant force equal to the weight of the fluid displaced by the object.



### **Example 1:**

**Scenario:** When a ship is placed in water, it displaces a volume of water equal to the volume of the portion of the ship submerged in the water.

**Outcome:** The ship floats because the buoyant force is equal to or greater than the weight of the ship.



**Example 2:**

**Scenario:** When a stone is placed in water, it displaces a volume of water equal to the volume of the stone submerged.

**Outcome:** The stone sinks because the buoyant force is less than the weight of the stone.



Homework - Monday

Send me your work  
before 10 PM tonight

# Which one of these will sink? Why?



	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
Weight of stone	2.8	0.4	3	6
Weight of displaced water	1.6	0.8	3	10

Speed = Distance \* Time

How many seconds in a minute?

How many metres in a kilometre?

0.6kms equals how many metres?

If a rocket travels at .4km/second, how many metres will it travel in 2 mins?



Look up the fire triangle  
and explain it in 50 words

