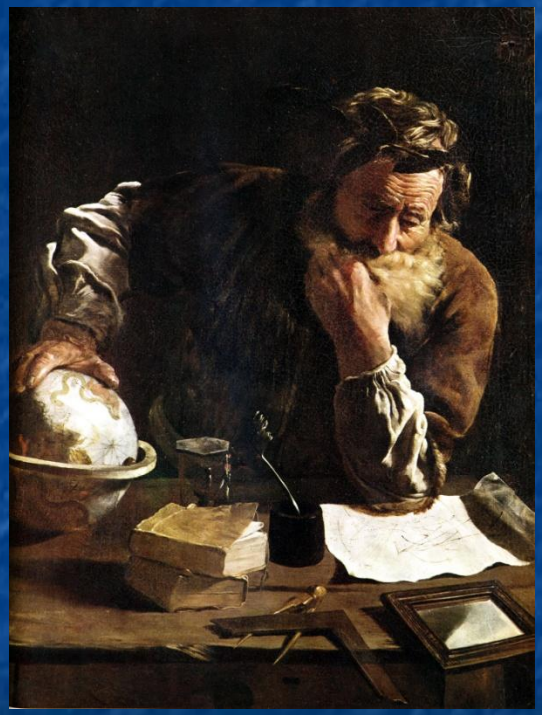
Archimedes

287 B.C. – 212 B.C.



Famous Quotes….

"Give me a spot where I can stand and I shall move the earth."

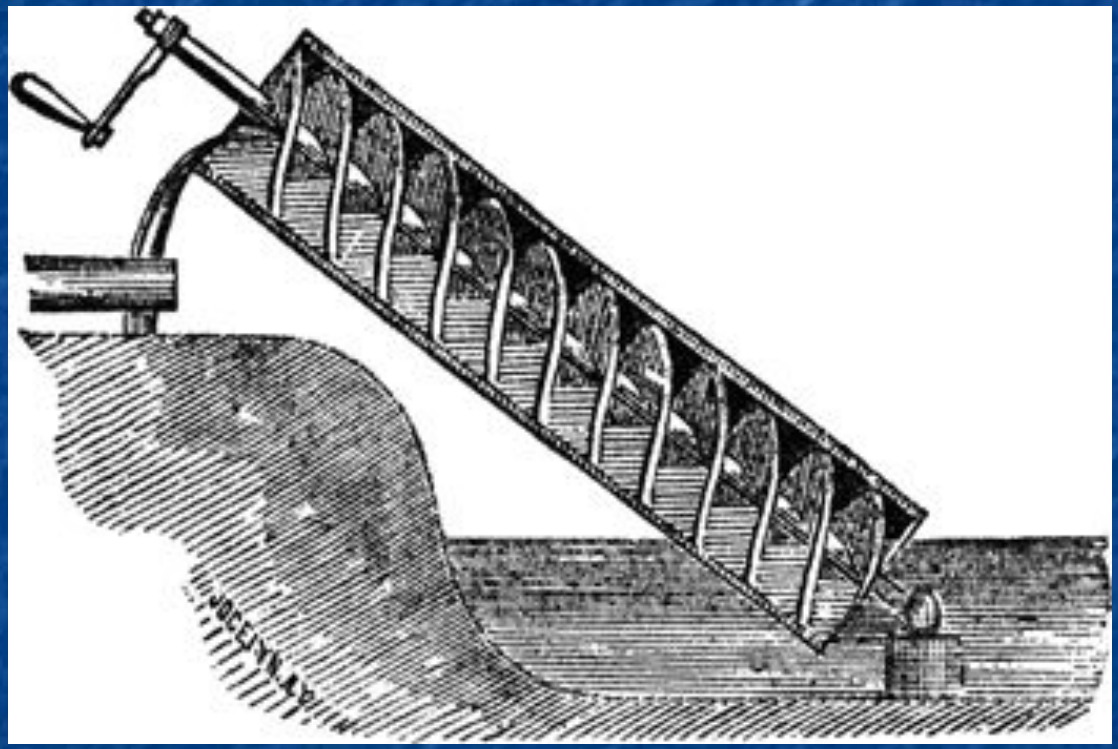
"Eureka! Eureka! I have found it!"

Mini Planitarium

Archimedes created a mini planetarium that was mechanical and showed the motions of the sun, moon, and planets as viewed from the earth.

Mini Planitarium

Archimedes' Screw



Archimedes' Screw

The purpose is to move water uphill to help with irrigation.

Contributions:

- Crop irrigation and drainage/farming practices
- Remove water from ships so they would not sink (mechanical water pump)
- Move sludge
- Sewage plants (many substations send to main treatment plant)

The Law of Hydrostatic or the Archimedes' Principle

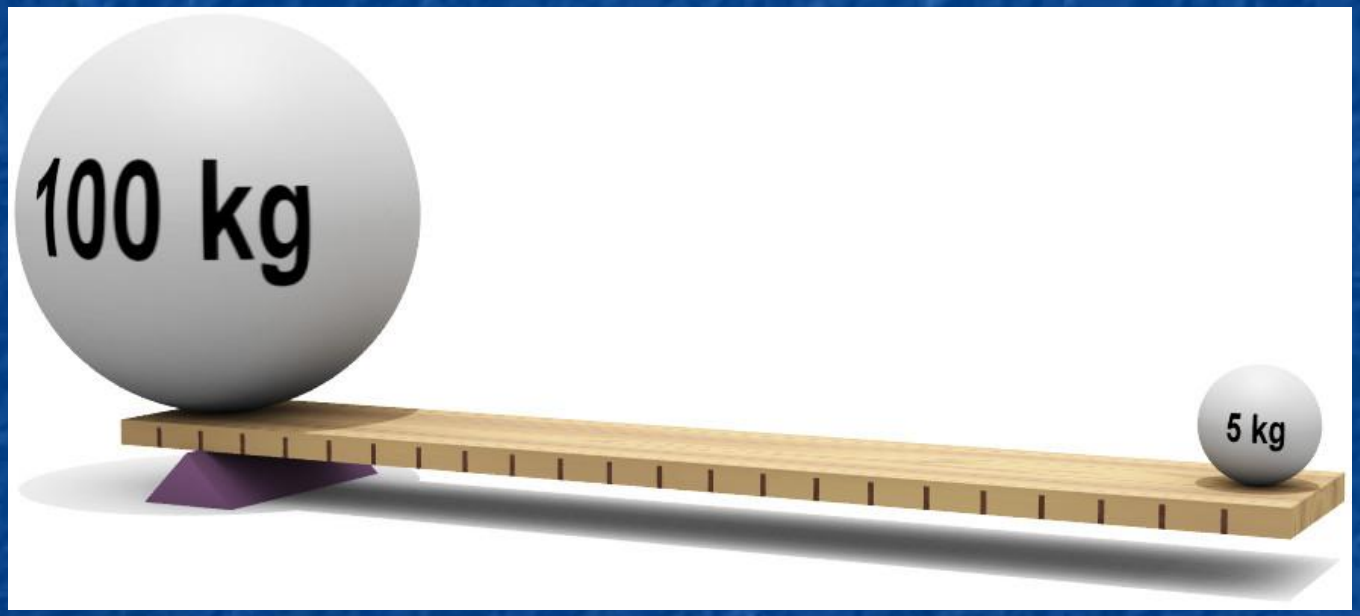
What Archimedes stated:

"Any solid lighter than a fluid will, if placed in a fluid, be so far immersed that the weight of the solid will be equal to the weight of the fluid displaced."

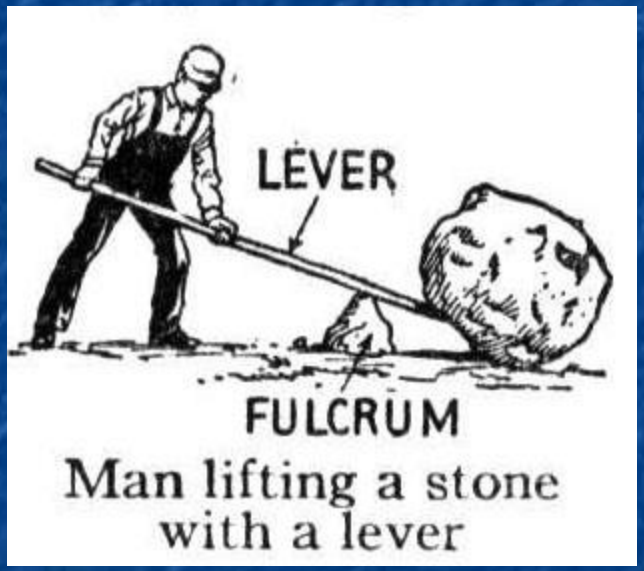
Simple Machines: Law of the Lever

He was not the first to use the lever but he showed that the movement of the fulcrum influences equilibrium.

Simple Machines: Law of the Lever



Law of the Lever – the closer the lever is to the fulcrum, the easier it is to move an object



Man lifting a stone with a lever

Contributions:

- Applied mechanics – moving from physical science theory to technology and it is used to explain the effects of items when force is applied

  (example: engineering)

Contributed to Math

- Pi - Used a 96 sided polygon to determine that the value of pi was between 3 10/71 and 3 1/7.

Contributed to Math

Approximating the area of a circle

He found the area of a circle by finding the area of smaller rectangles and adding them together.

This is termed the "**method of exhaustion**" and led to **integral calculus**, which is the study of the area figures and on the volumes of solids.