

## HOW FAR AWAY?


- Your Head is a Model of the Sun
- Use a tape measure to find the circumference of your head. (One per group)
- Find the diameter of your head.

$$\text{Diameter} = \frac{\text{Circumference}}{\text{Pi (3.14)}}$$

- Find the Scale of your model

- $\frac{\text{Diameter of the Sun}}{\text{Diameter of Your Head}} = \frac{1,391,000,000 \text{ m}}{0.XX \text{ m}} = \text{Scale}$

## HOW FAR AWAY?

- Multiply the Diameter of other Two Bodies by the Scale
    - $\text{Diameter of Body} \times \text{Scale} = \text{Diameter of Model}$
  - Diameter of Earth = 12,756,200 m
  - Diameter of Sun = 1,391,000,000 m
  - Diameter of Moon = 3,474,800 m
  - Make your model Earth and Moon out of small pieces of clay.
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## HOW FAR AWAY?

- Multiply the Earth-Sun Distance and the Earth-Moon-Distance by the Scale
    - $\text{Distance} \times \text{Scale} = \text{Distance of Model}$
  - Earth-Sun Distance = 149,600,000,000 m
  - Earth-Moon Distance = 384,403,000 m
  - Make your model Earth and Moon out of small pieces of clay.
  - QUIETLY, Lay out your model of the Sun, Earth, Moon system in the hallway.
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