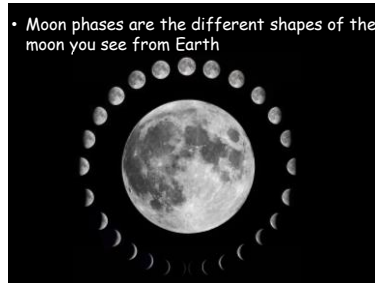


**SCIENCE 24'**

How long does it take for the moon to orbit the earth?

28 days  
28 hours  
28 months  
24 hours

- I can explain why we only see one side of the moon
- I can explain the difference between waxing & waning
- I can name & label the 8 phases of the moon



**Things to know...**

- The moon orbits the Earth
  - That orbit (revolution) is tilted at 5°
  - It takes 27 1/3 days to complete one full revolution

- The moon also rotates
  - It takes 27 1/3 days to do 1 full rotation
  - Because the moon rotates & revolves at the same rate we only see the "Near" side of the moon

- The moon does NOT make it's own light
  - It reflects the sun's light

- If the Earth were a basketball the moon would be a tennis ball
  - 23.5 feet away!

**Phases: Observing & Identifying**

- If you watch the moon every night you see the shape *appear* to change

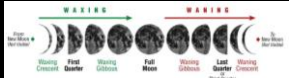
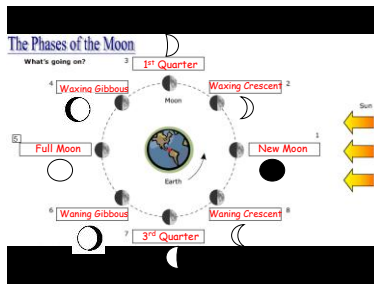
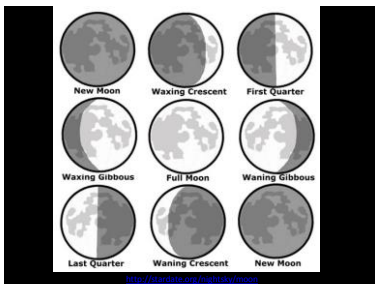
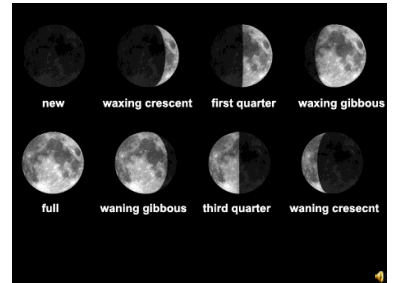
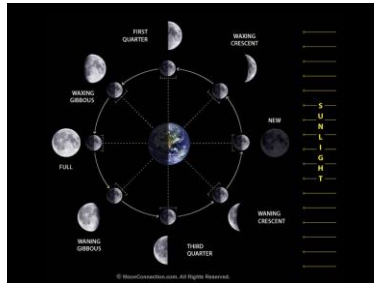
**What causes the phases of the moon?**

- The sun shines on the moon
- When it reflects off the "far side" we call it a **New Moon**
- When it reflects off the "near side" we call it a **Full Moon**
- Between New & Full we see **parts** of the "near side" of the moon

How the Moon appears from Earth

### Moon Phases

- **Waxing** means growing (**Maxing**)
  - Meaning you see **more & more** of the lit side of the moon
- **Waning** means shrinking
  - Meaning you see **less & less** of the lit side of the moon

- I can explain why we only see one side of the moon
- I can explain the difference between waxing & waning
- I can name & label the 8 phases of the moon