

**Are You Smarter  
Than A 4<sup>th</sup> Grader?**

Solar System

# Topic 1

What causes the moon's

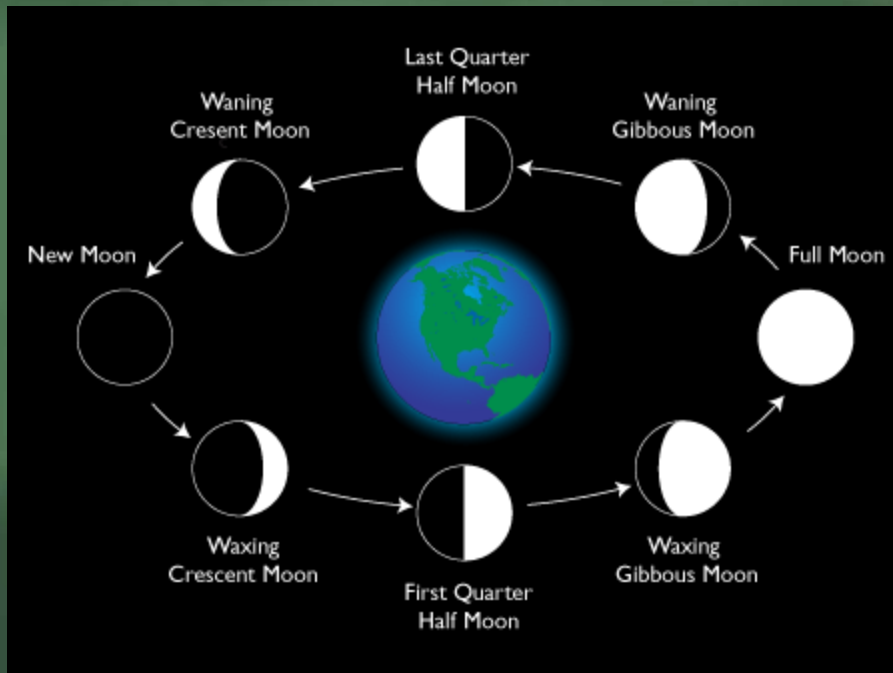
a. angle of moon  
phases?

b. the moon orbiting  
Earth

c. the sun orbiting  
Earth

# Topic 1

## b. the moon orbiting Earth



1 2 5 10 25 50 100 175 300 500 1000 ☐ WRONG

## Topic 2

What are **two ways** in which the Earth moves?

- a. steady and slow
- b. in phases and cycles
- c. rotates and revolves

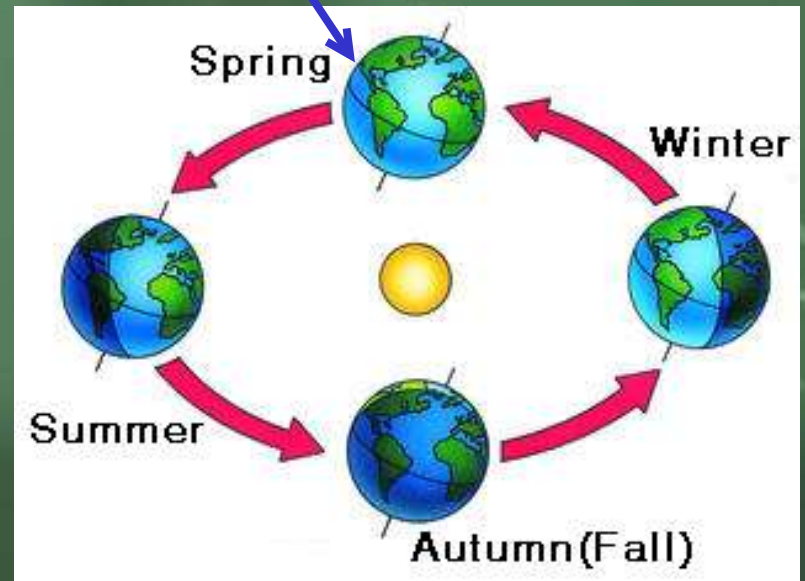
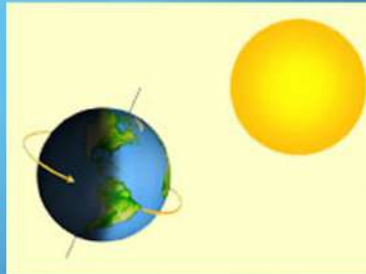


## Topic 2

### C. rotates and revolves

#### Earth's Rotation:

○ Earth's rotation is what causes **day** and **night**.



## Topic 3

What causes the seasons?

a.the weather

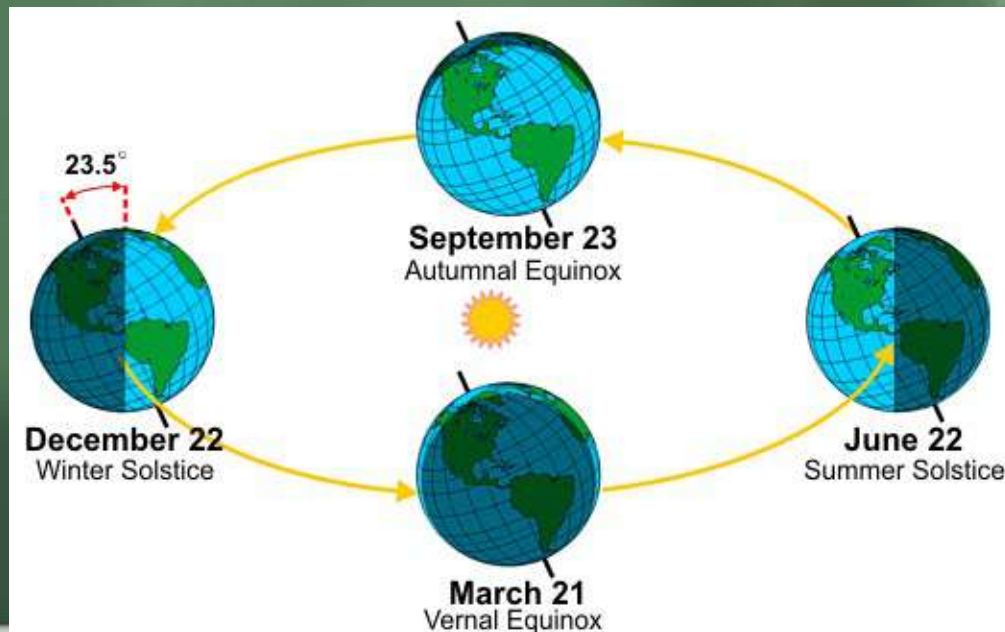
b.the tilt of Earth on its axis as it revolves around the sun

c.the phases of the moon



# Topic 3

b. the tilt of Earth on its axis as it revolves around the sun





## Topic 4

If you look up in the sky at night and see **half of the moon lit on the left side**, which moon phase can you expect to see within the next few nights?

a.crescent

b.waning crescent

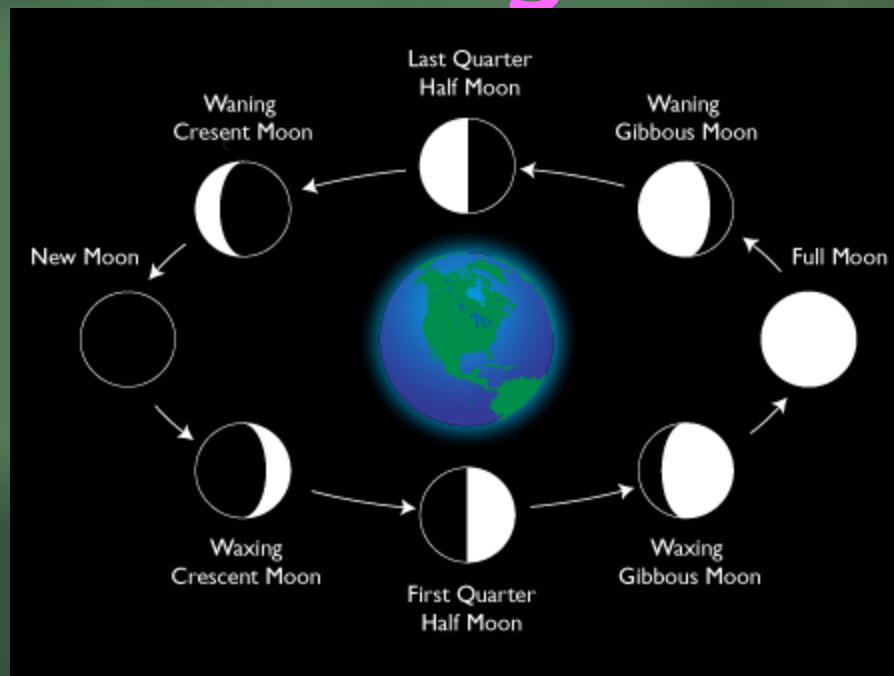
c.full moon





# Topic 4

## b. waning crescent



## Topic 5

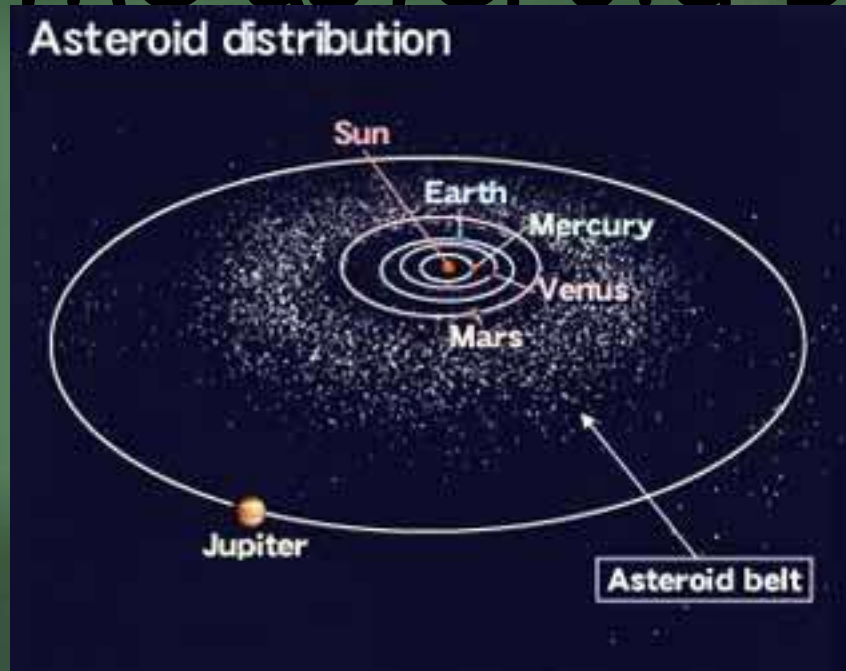
What separates the inner planets from the outer planets?

- a.the Milky Way
- b.the moon
- c.the asteroid belt



# Topic 5

c. the asteroid belt.



## Topic 6

What are **three similarities** of the four inner planets?

a. mostly made of water, larger, and no more than 2 moons

b. mostly made of rock, smaller, and no more than 2 moons

c. mostly made of oxygen, smaller, and no more than 3 moons





# Topic 6

b. mostly made of rock, smaller,  
and no more than 2 moons



# Topic 7

What are **four similarities** of the four outer planets?

a. mostly made of gases, much larger, more than 2 moons, surrounded by rings

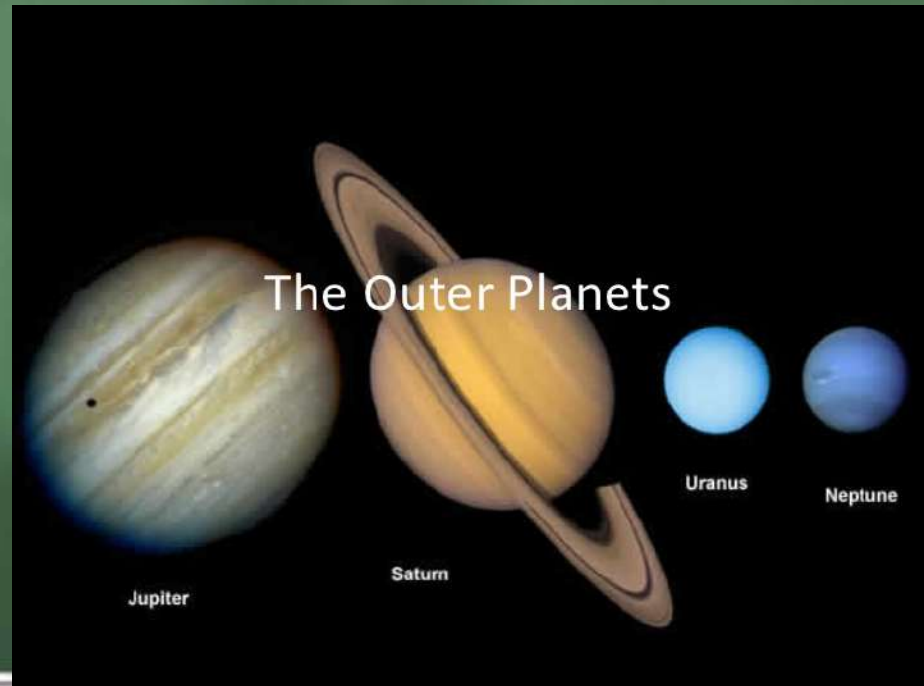
b. mostly made of dirt, smaller, less than 2 moons, surrounded by water

c. mostly made of rock, larger, more than 2 moons, surrounded by gravity



# Topic 7

a. mostly made of gases, much larger,  
more than 2 moons, all are surrounded  
by rings





## Topic 8

Name the planets in order from the sun.





## Topic 8

Mercury, Venus, Earth,  
Mars, Jupiter, Saturn,  
Uranus

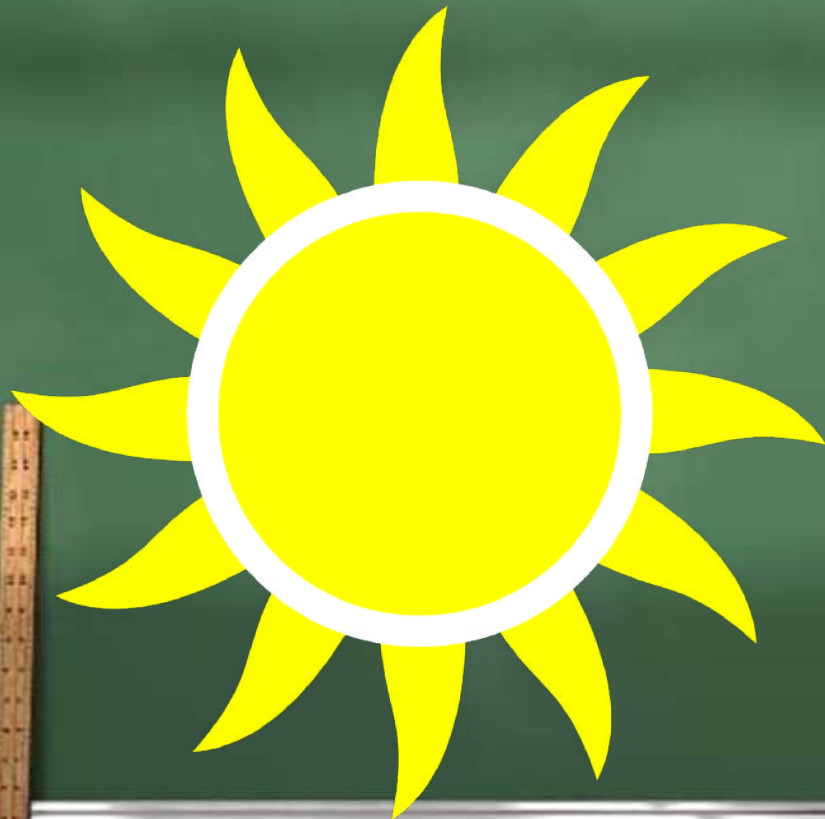
## Topic 9

What is the largest object in  
our **Solar System**?



## Topic 9

The sun



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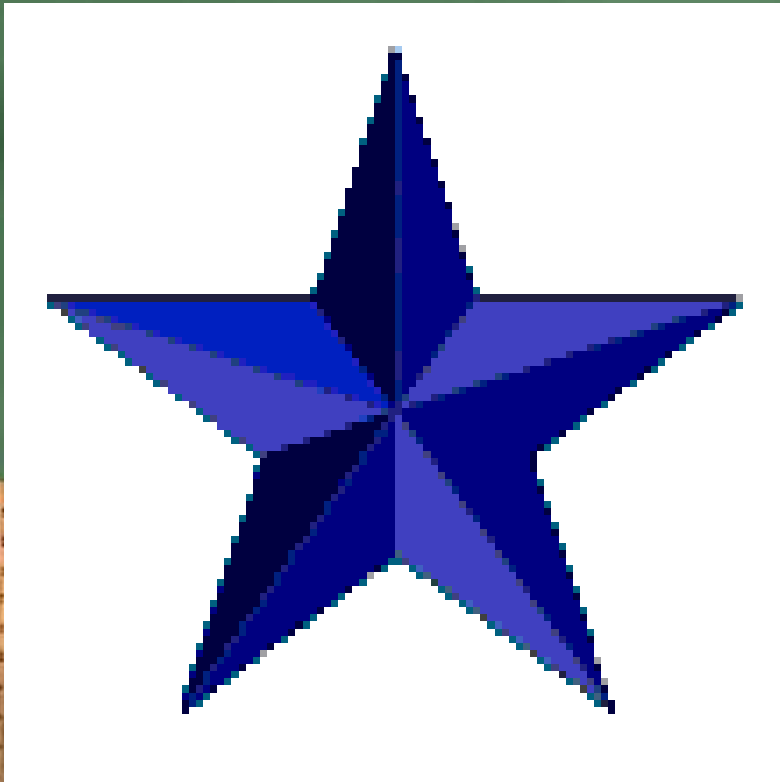
## Topic 10

What color is the hottest star?





# Topic 10



Blue

# Topic 11

What color is the coolest star?



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# Topic 11

Red



1 2 5 10 25 50 100 175 300 500 1000 ☐ WRONG

# Topic 12

What are the four ways a star can be classified?

a. size, orbit, texture, weight

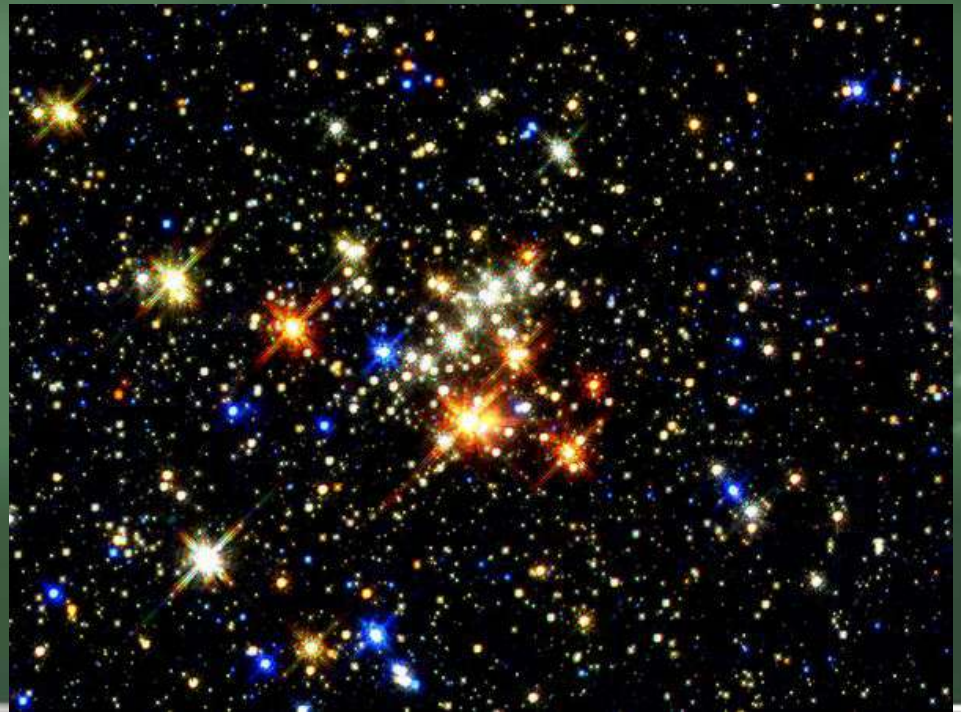
b. light, measurement, orbit, size

c. size, color, brightness,  
temperature



# Topic 12

c. size, color, brightness,  
temperature



1 2 5 10 25 50 100 175 300 500 1000 II WRONG

# Topic 13

Why can we not see the same constellations all year long?

a. As Earth revolves around the sun, we see different parts of space at different times of the year.

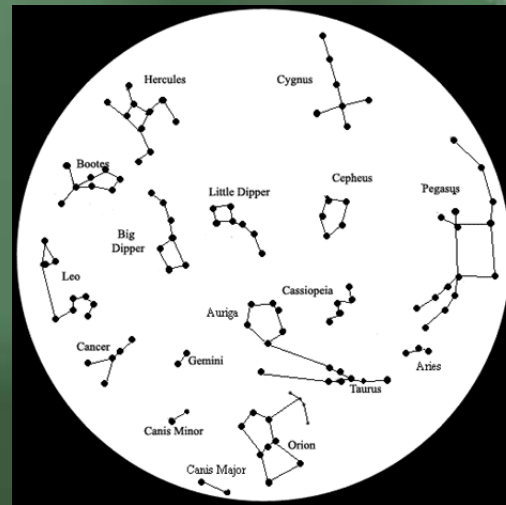
b. Constellations revolve around the moon.

c. Constellations "wander" around the sky.



# Topic 13

a. As Earth revolves around the sun, we see different parts of space at different times of the year.





## Million Dollar Question

How can you tell the difference between planets and stars when looking at them without a telescope?

(2 ways)

RIGHT

WRONG



# Million Dollar Answer

- Planets shine with a steady light; stars look like twinkling lights.
- When watching the sky over a period of time, stars stay in a fixed location while planets seem to "wander" around the sky.