

## Warm Up 3: Moon Phases

11-15-18

LT I can state the phases of the moon and explain why they occur.

Q1. What shadow must the people on earth be in to see a total solar eclipse?

Q2. Why is there less people that see a total solar eclipse than total lunar eclipse?

### 3 Warm Up: Moon Phases 11-15-18

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Q1. What shadow must the people on earth be in to see a total solar eclipse?

Ⓐ1. The umbra

Q2. Why is there less people that see a total solar eclipse than total lunar eclipse?

Ⓐ2. The shadow of the moon is "small". Only a small area of land will be in the umbra during a solar eclipse.

Today's Plan

Warm Up: Moon Phases

Correct HW 3 Eclipses

Notes 1 Moon Phases

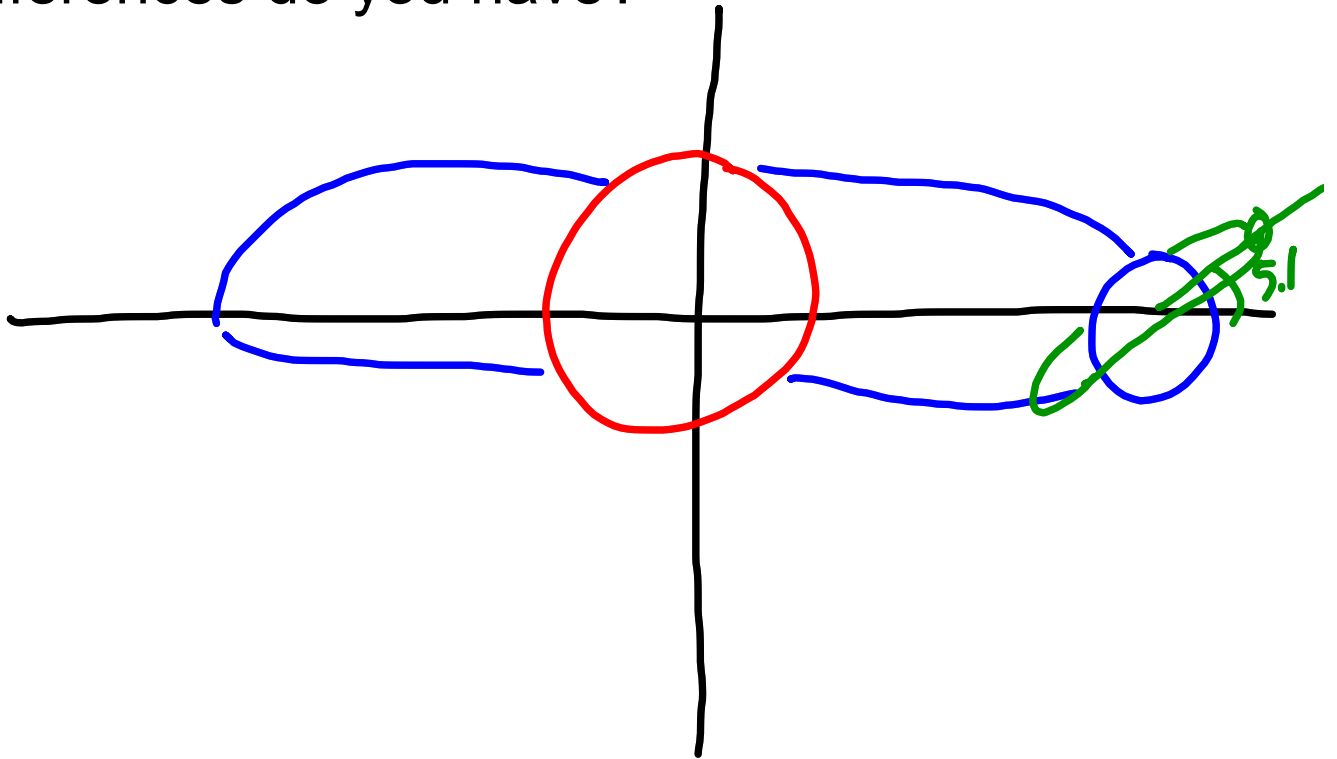
HW 4 Study Guide

HW 5 Note Card

Quiz next period

## HW 3 Eclipses

Compare your definitions and diagrams, what differences do you have?



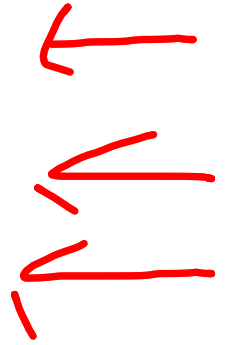
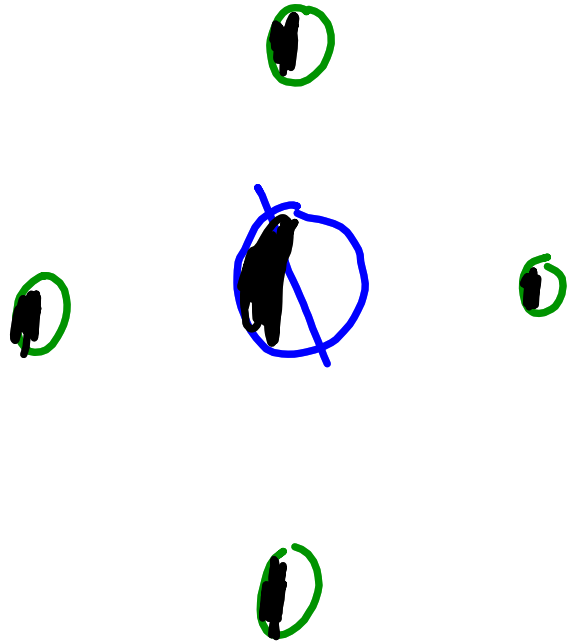
2 minutes

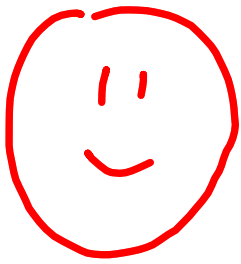
With your partner, I want you to think of a "Full Moon", what is this.

Discuss

2 minutes, draw on Notes 1 Moon Phases.







## Moons Revolution and Rotation

Revolves once every (beginning of one cycle to next)  
27.5 days

Rotates once every  
27.5 days

This phenomena is called:

Synchronous Rotation

Due to Synchronous Rotation we only see one  
side of the moon.



## Moon Phases Vocab

### Waxing and Waning

-Anyone wax a car? What are you doing with the wax?

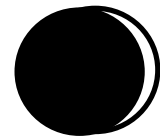
A. Adding it to the car.

15. Waxing: Adding the amount of light reflected back to earth (light we see is getting BIGGER)

16. Waning: reducing the amount of light reflected back to earth (light we see is getting SMALLER)

## Moon Phases Vocab

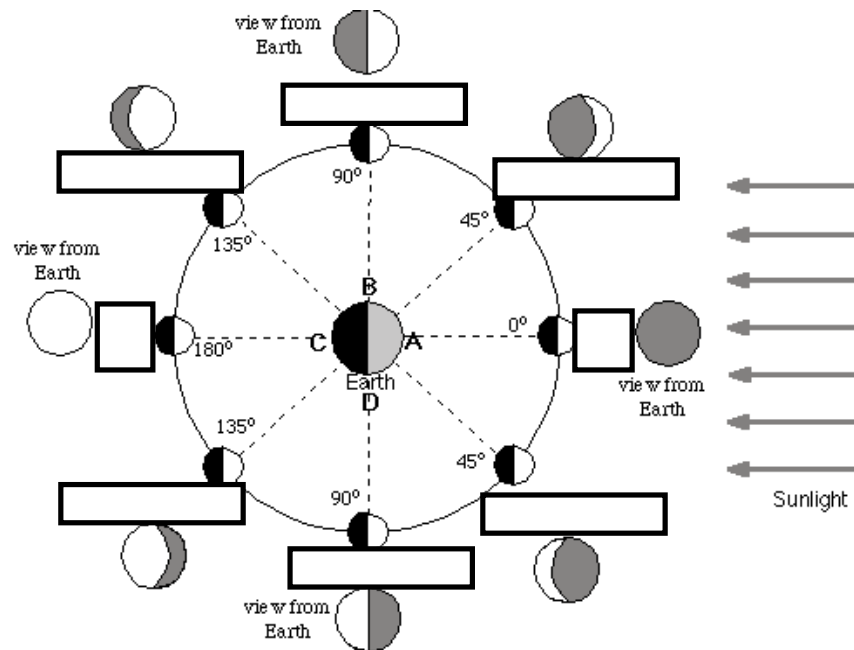
### Crescent and Gibbous



17. Crescent: Less than half moon  
3rd Quarter to 1st Quarter (not New Moon)

18. Gibbous: More than half moon  
1st Quarter to 3rd Quarter (not Full Moon)

Please Fill in the chart below using the vocabulary terms and knowledge that the Moon revolves in a counter clock wise motion.



The Sun-Moon angle is the angle defined by Sun->Earth->Moon with Earth (where *square*) as the angle vertex. As the Sun-Moon angle increases we see more of the sunlit part of the Moon. Note that if this drawing were to scale, then the Moon would be half this size and its orbit would be about 22 **times** larger in diameter and the Sun would be about 389 **times** farther away than the Moon!

Reminder Quiz Next Period

## Warm Up 3: Moon Phases

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LT I can state the phases of the moon and explain why they occur.

Q3. What does it mean to be waxing, what about waning?

Q4. What exactly is a full moon?

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Q3. What does it mean to be waxing, what about waning?

Ⓐ3. Waxing: getting bigger  
Waning: getting smaller

Q4. What exactly is a full moon?

Ⓐ4. It is when all of the light that strikes the moon is reflected back to Earth so we see Half the moon.

Name: \_\_\_\_\_ Period: \_\_\_\_\_ Date: \_\_\_\_\_

## Notes 1: Moon Phases

The Moon revolves around the earth every \_\_\_\_\_

The Moon rotates once every \_\_\_\_\_

Due to this \_\_\_\_\_ we only see \_\_\_\_\_ of the Moon.

### Vocabulary Words

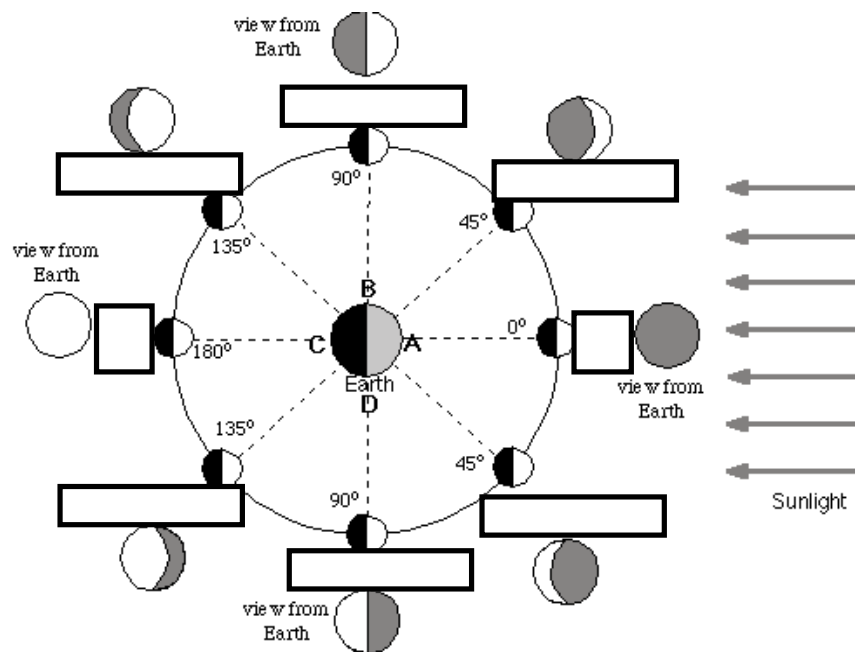
Waxing:

Waning:

Crescent:

Gibbous:

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