

IX. The Moon

a. The moon is a _____.

1. _____ = Latin word for the moon
2. _____ = Roman Goddess of the moon.

b. PHYSICAL PROPERTIES OF THE MOON

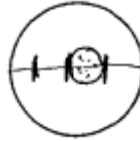
i. Size:

1. Diameter: _____ miles

2. Compared to Earth

$$\frac{\text{Diameter of Moon} = \underline{\hspace{2cm}} \text{ miles}}{\text{Diameter of Earth} = \underline{\hspace{2cm}} \text{ miles}} = \underline{\hspace{2cm}}$$

3. Scale of size:



4. Gravity

a. _____ the gravity of Earth

b. _____

5. ATMOSPHERE:

a. _____

b. _____

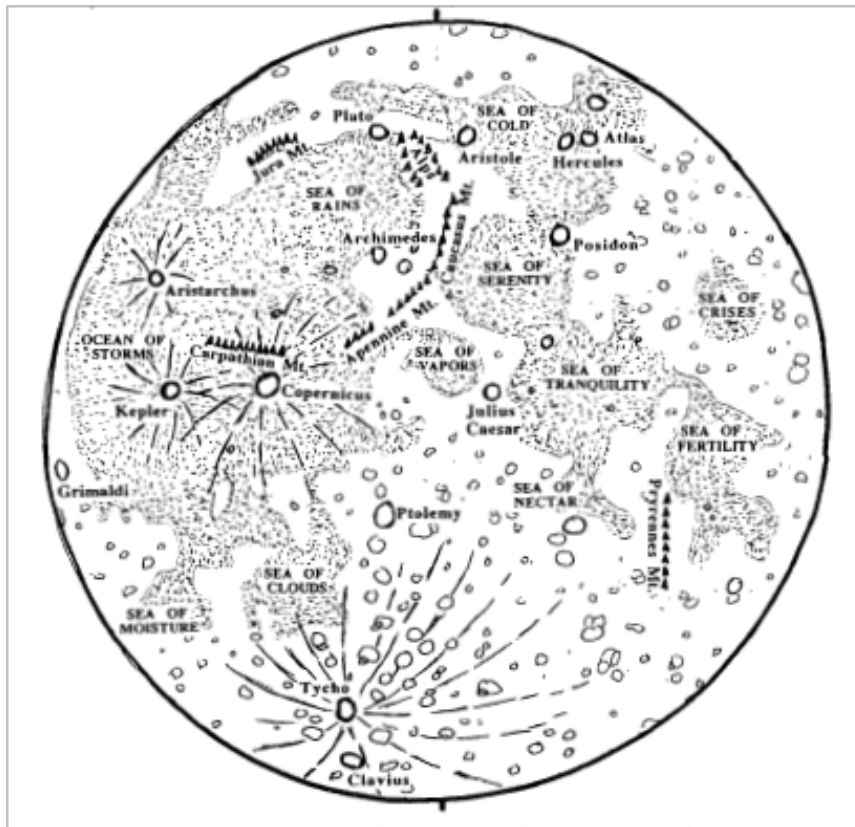
6. TEMPERATURES:

a. _____ on the lighted side

b. _____ on the dark side.

c. These large temperature extremes exist because

c. LUNAR TOPOGRAPHY – Surface features of the moon.



- i. _____: Bowl-shaped depressions formed primarily as a result of the impact of meteors.
1. There are many more craters on the moon than on earth because _____

_____.
 2. _____: – Appear as the “dark areas” on the moon’s surface. Once thought to be _____:.
 3. _____: – appear as “bright streaks” that radiate from certain craters. Consist of shattered debris that was splashed out by the impact of meteors that formed the craters.
 4. _____: – appear as the “light areas” on moon’s surface. Consist of _____: and _____:.

d. THE MOON'S REVOLUTION:

i. Period of revolution vs Cycle of phases

1. PERIOD OF REVOLUTION- _____

a. _____ (ESRT Page ____)

2. CYCLE OF MOON'S PHASES - _____

a. _____
 b. _____

ii. The moon revolves around Earth in an _____ orbit, and Earth is at one _____.

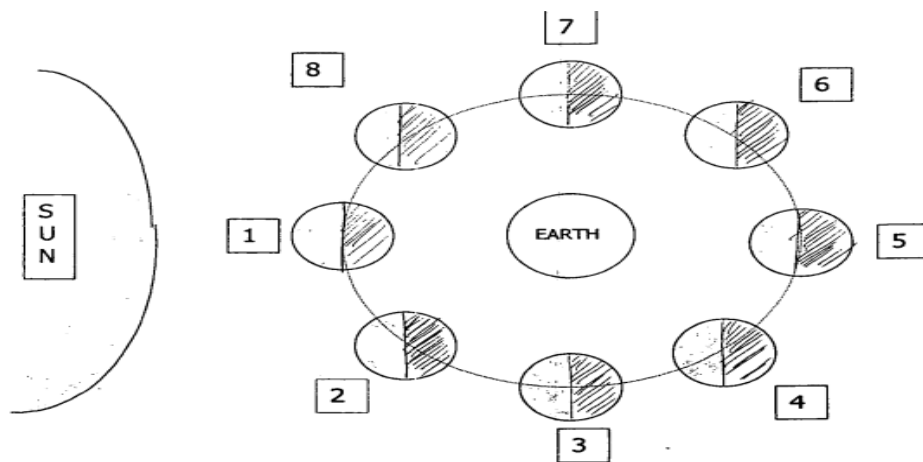
iii. This causes the moon's apparent _____ to change in a _____ manner.

e. PHASES OF THE MOON:

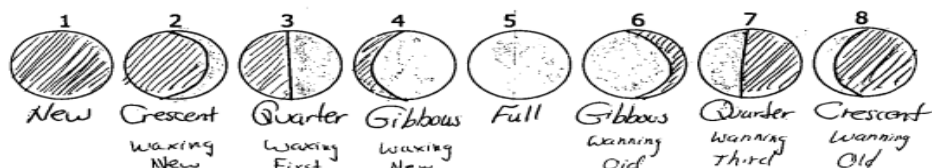
i. Caused by _____
 ii. Our earth view of _____

iii.

1. The Moon orbiting Earth as seen from space:



b. Phases of the moon as viewed from Earth



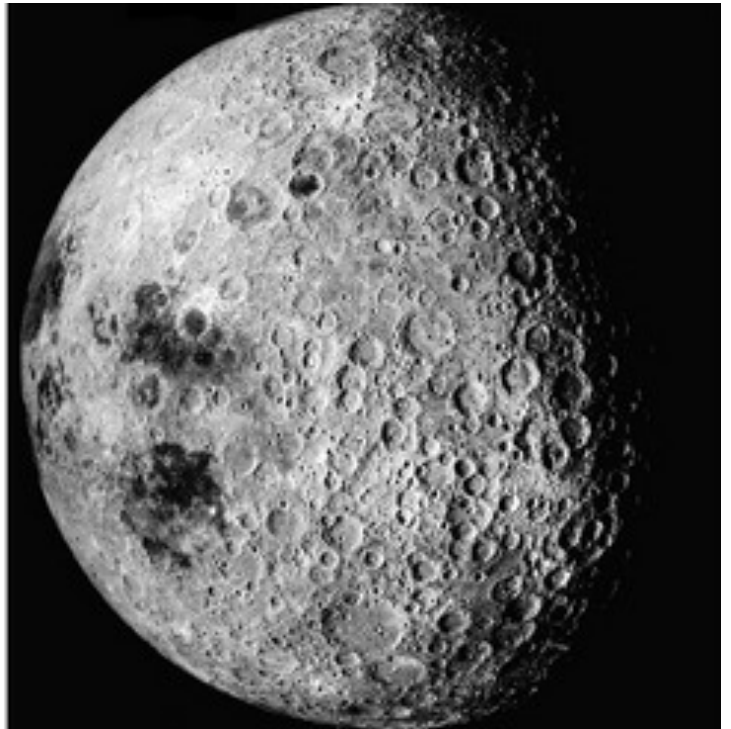
2. _____ - The _____ of the moon's visible, illuminated surface from _____ moon to _____ moon.
3. _____ - The _____ of the moon's visible illuminated surface, from _____ moon to _____ moon.

f. THE NEAR AND FAR SIDE OF THE MOON

- i. _____ - the bright side of the moon that always faces earth. It is nearly half highlands and half maria.
- ii. _____ - the side of the moon that _____ faces Earth. It is mostly highlands and craters.
- iii. The same side of the moon (the near side) always faces Earth
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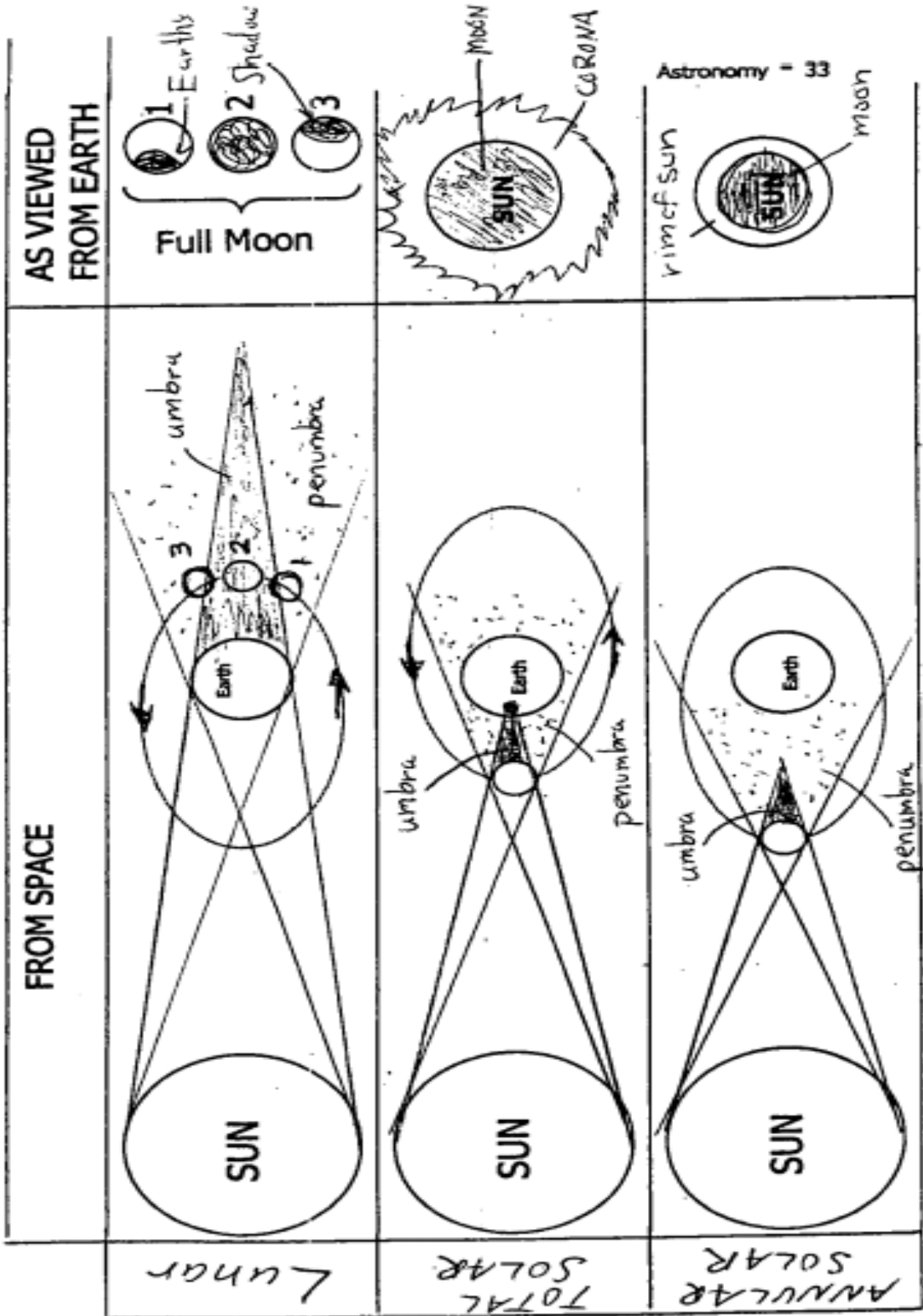
NEAR SIDE



FAR SIDE

g. ECLIPSES

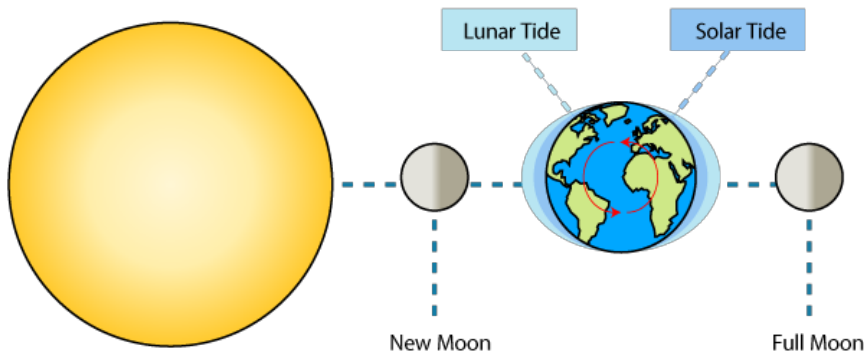
ECLIPSES



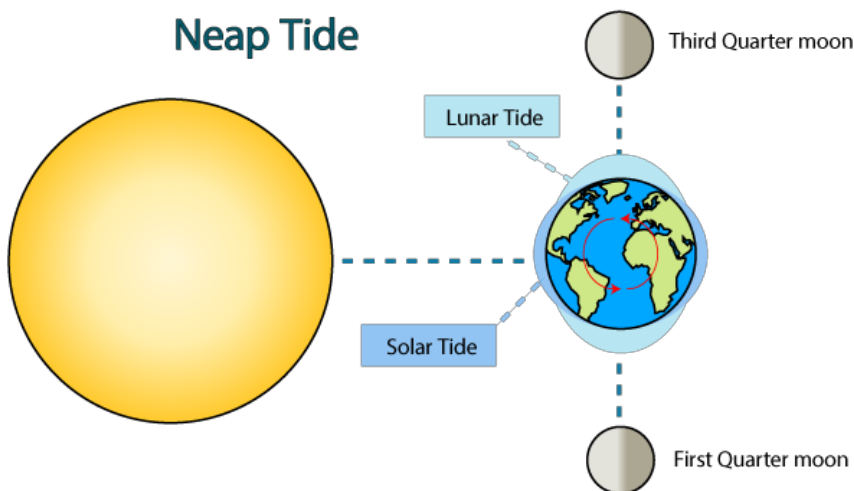
II. TIDES

- a. Tides are the _____
- i. Caused by the moon's _____
- ii. Affected by Earth's _____.
- b. _____: _____ tides occur during the _____ and the _____ phases when the _____, _____, and _____ are in line.
- c. _____: _____ tides occur during the moon's _____ phases and the moon is _____ in line with the Earth and sun.

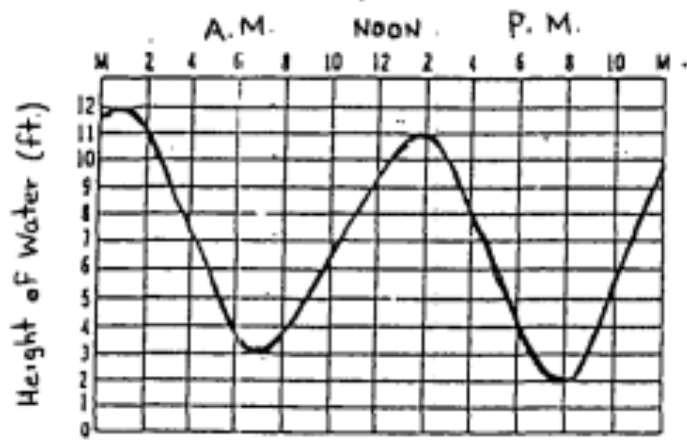
Spring Tide



Neap Tide



d. The period from high tide to high tide is normally about _____
 _____. It is a _____ change.



e. The next high tide will occur at _____
 f. The next low tide will occur at _____

UNIT 9 EXAM TOPICS**UNIVERSE**

- Structure
- Doppler Effect

STARS

- ESRT Page 15
- Nuclear Fusion

PLANETS

- ESRT Page 15
- Terrestrial & Jovian
- Geocentric & Heliocentric

ECCENTRICITY

- ESRT Page 1
- Velocity
- Kinetic Energy
- Gravitational Force
- Foci
- Major Axis

THE MOON

- Phases
- Draw
- Read
- Time required – revolution vs Cycle of
- Phases
- Eclipses
- Solar
- Lunar
- Position of celestial objects
- Rotation and revolution

CELESTIAL SPHERES

- Draw paths
- Read paths
- 4 specific dates

ROTATION

- 15 degrees per hour
- Evidence
- Foucault Pendulum
- Coriolis effect
- Time zones
- Polar view diagrams
- Daily patterns

REVOLUTION

- 1 degree per day
- Evidence
- Seasons
- Dates
- Position
- Latitude of direct rays
- Duration of insolation

TIDES

- Spring and neap
- Position of moon, sun, earth

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UNIT 8 EXAM VOCABULARY

Asteroid	Impact Crater
Axis of Rotation	Jovian Planet
Big Bang Theory	Luminosity
Celestial Object	Meteor
Comet	Milky Way Galaxy
Constellation	Moon
Coriolis Effect	Nuclear Fusion
Doppler Effect	Phases of the Moon
Eccentricity	Red Shift
Eclipse	Revolution
Ellipse	Rotation
Focus	Solar System
Foucault pendulum	Star
Galaxy	Terrestrial Planet
Geocentric Model	Tides
Gravitation	Time Zones
Heliocentric Model	Universe