

Name: _____

Solar System

Date: _____ Period: _____

Earth Science

Lab Activity: The Moon

INTRODUCTION:

Earth's only natural satellite is our Moon. While the Sun is the dominant celestial object during the daytime sky, it is the Moon that is the major attraction at night. Throughout the month, the moon appears to change shape and its direction of rising and setting. There are even days when it is visible during the daytime.

OBJECTIVE:

In the following activity you will investigate the actual and apparent motions of the moon and determine the different phases as it move throughout our sky over a month.

VOCABULARY:

Waxing Moon -

Waning Moon -

New Moon -

Crescent Moon -

Gibbous Moon -

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PROCEDURE A:

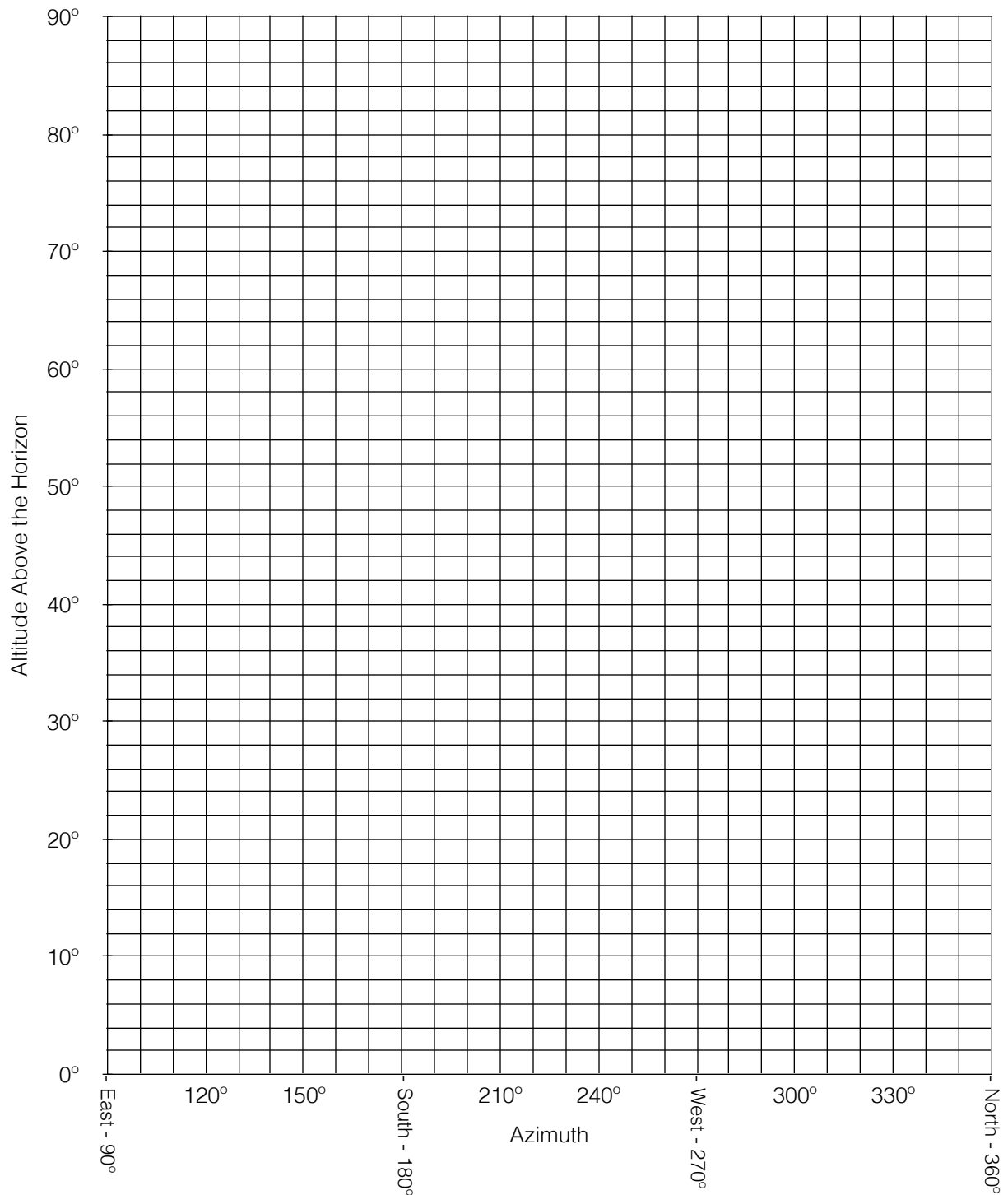
1. Fill in the chart with the Moon Phase for each viewable portion of the Moon that was observed.
2. Observations of the Moon were taken every night at 9:00 pm for about a month. Using the Moon Observation Chart, plot an "x" for the altitude and azimuth onto the Earth's Horizon Chart.

MOON OBSERVATION CHART

Date	Altitude	Azimuth	Viewable Portion	Moon Phase
Feb 27	0°	290°	1%	
Feb 28	10°	285°	17%	
March 1	20°	280°	27%	
March 2	34°	275°	36%	
March 3	46°	270°	47%	
March 4	58°	260°	59%	
March 5	68°	230°	70%	
March 6	72°	200°	80%	
March 7	66°	160°	88%	
March 8	56°	140°	94%	
March 9	46°	130°	99%	
March 10	34°	120°	100%	
March 11	20°	110°	99%	
March 12	0°	100°	95%	

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EARTH'S HORIZON CHART

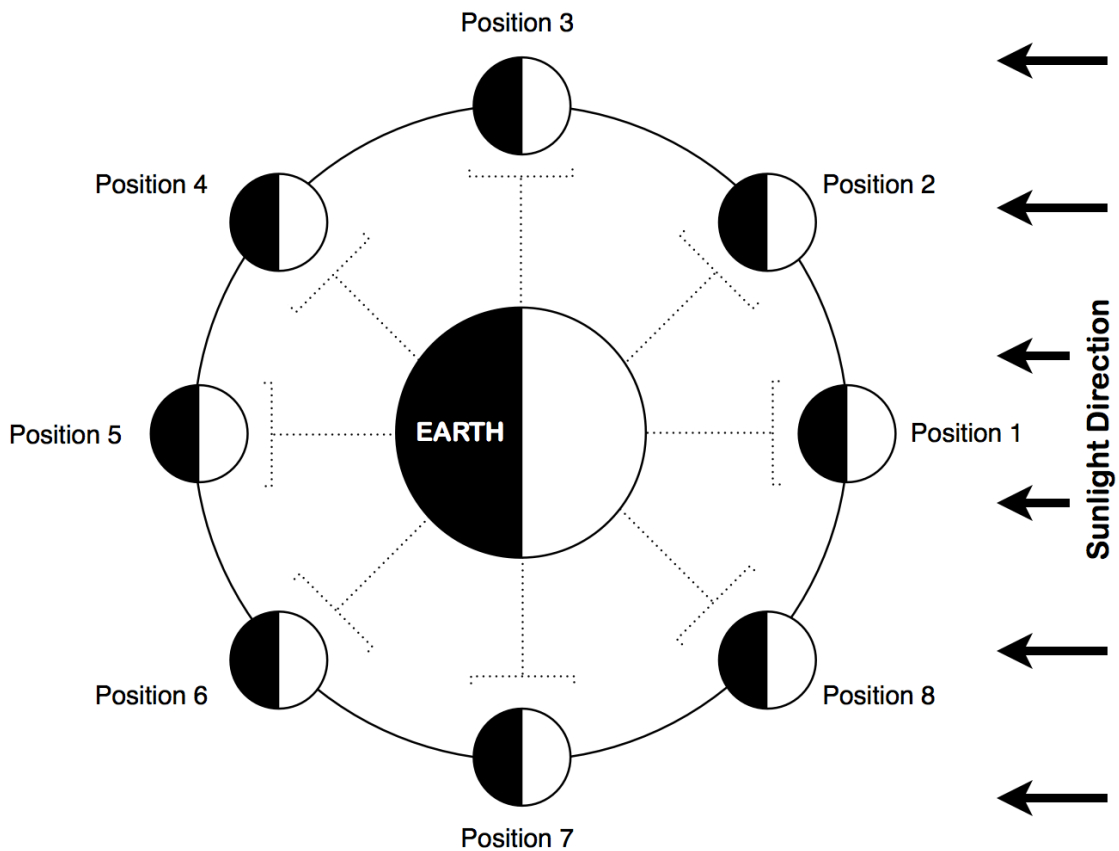


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PROCEDURE B:

1. Using the Positions of the Moons Diagram and your knowledge of Earth's Moon, sketch the visible portion of the moon for positions 1 through 8 below.
2. Be sure to shade in the portion of the moon that you do not see.

POSITIONS OF THE MOON DIAGRAM



Position 1	Position 2	Position 3	Position 4	Position 5	Position 6	Position 7	Position 8

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PROCEDURE C:

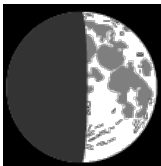
1. Using the Moon Phase Images, label the proper moon phase.
2. Be sure to check if it is a waxing moon or waning moon.
 - Remember: "Light on right... moon grows bright!"



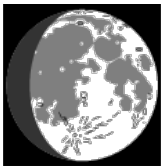
Waxing Waning Moon Phase: _____



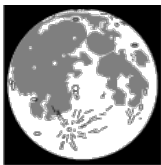
Waxing Waning Moon Phase: _____



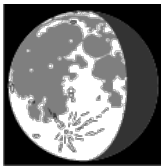
Waxing Waning Moon Phase: _____



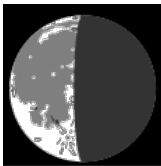
Waxing Waning Moon Phase: _____



Waxing Waning Moon Phase: _____



Waxing Waning Moon Phase: _____



Waxing Waning Moon Phase: _____



Waxing Waning Moon Phase: _____

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DISCUSSION QUESTIONS:

1. What is meant when the Moon is said to be waxing?

2. What is meant when the Moon is said to be waning?

3. What is the phase of the moon just before and just after the New Moon?

4. What is the phase of the moon just before and just after the Full Moon?

5. Are the phases of the moon cyclic?

CONCLUSION: Describe the change in the Moon's phase that takes place over the span of one cycle.