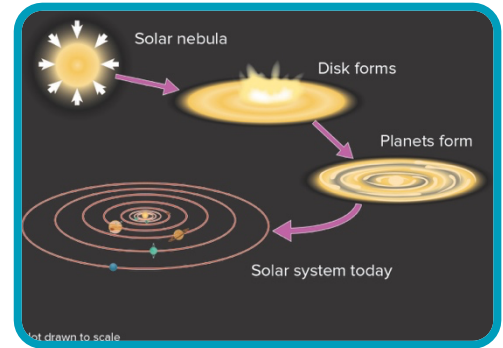


Ch. 10 Study Guide

Directions: You must complete this study guide in its entirety and turn it in through Archie **by the end of your class period on April 20th**. All answers *must be handwritten (half of the credit will be taken from each question not handwritten)* and should have as much detail as possible. This covers all questions that could be asked, so use your notes and complete this early.

List the four main stages for how the solar system was formed. (Ch 12 Lesson 2)

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What are the two main variables for the gravitational force equation, and how does changing the value for that variable impact the strength of the gravitational force? (Ch 11 Lesson 1)

Variable	How the force changes as the variable Increases

List the three main steps in the Giant Impact Theory detailing how the Moon was formed (Ch 11 Lesson 2)

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Define Intensity and use the word to help explain why Earth experiences seasons. (Ch 11 Lesson 1)

Definition	
Explanation for Seasons	

Describe how the Earth’s axis is oriented during a solstice/equinox and if there is a difference in daylight length between hemispheres. For each of the four different solstices/equinoxes, describe which season is occurring and how long the days are (Ch 11 Lesson 1)

	Solstice Axis Orientation and Daylight Difference	Equinox Axis Orientation and Daylight Difference	
	Names	Northern Hemisphere	Southern Hemisphere
Two Solstices			
Two Equinoxes			

The path of the Sun reach its highest and lowest heights during which seasons? In what relative cardinal direction would you see the Sun in each hemisphere? (Ch 11 Lesson 1)

Highest Path Season	Lowest Path Season	Northern Hemisphere Direction of Sun	Southern Hemisphere Direction of Sun

Fill out the following information about the Lunar Cycle (Ch 11 Lesson 2)

Moon's Period of Revolution																
Moon's Period of Rotation																
Length of Lunar Cycle																
What is the Near Side																
What is the Far Side																
What happens during Waxing phases																
What happens during Waning phases																
	<table border="1"> <thead> <tr> <th></th> <th>Name of Phase</th> <th>Portion of Near Side Lit</th> </tr> </thead> <tbody> <tr> <td>End of Week 1</td> <td></td> <td></td> </tr> <tr> <td>End of Week 2</td> <td></td> <td></td> </tr> <tr> <td>End of Week 3</td> <td></td> <td></td> </tr> <tr> <td>End of Week 4</td> <td></td> <td></td> </tr> </tbody> </table>		Name of Phase	Portion of Near Side Lit	End of Week 1			End of Week 2			End of Week 3			End of Week 4		
	Name of Phase	Portion of Near Side Lit														
End of Week 1																
End of Week 2																
End of Week 3																
End of Week 4																

Draw a simple diagram with the Sun, Earth, and Moon showing the different positions of the four phases mentioned in the table above (Ch 12 Lesson 2)

Draw two diagrams showing the position of the Sun, Earth, and Moon during a solar and a lunar eclipse. Fill out the other information (Ch 11 Lesson 2)

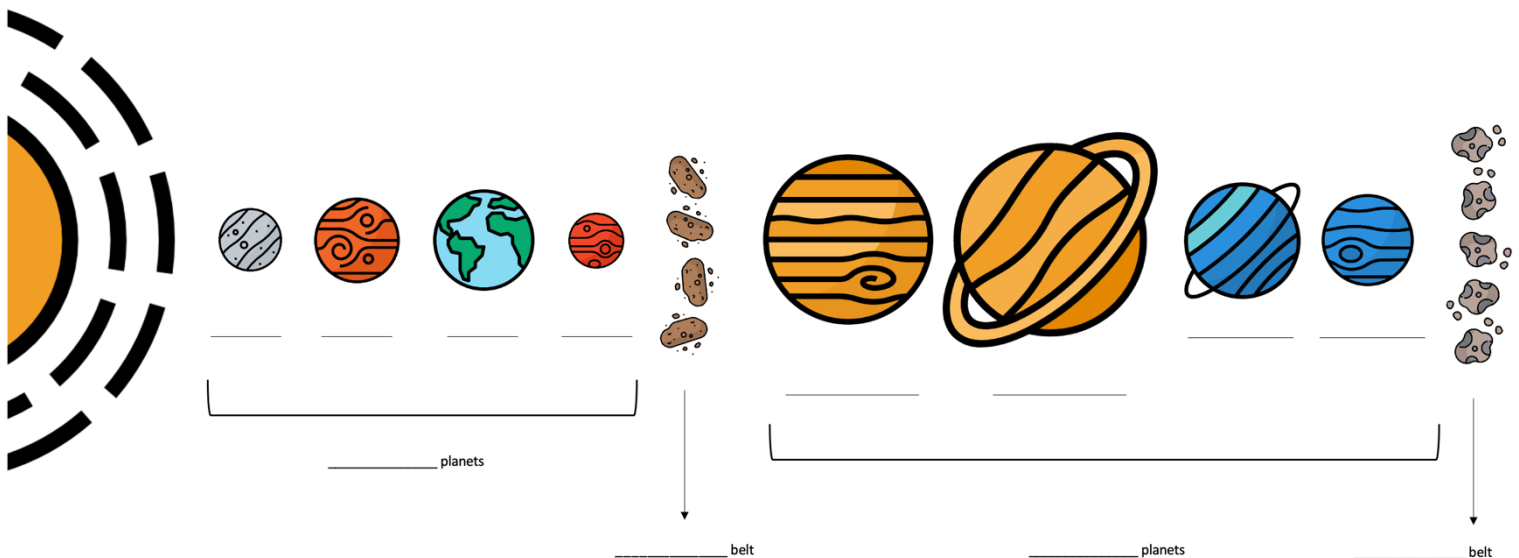
Solar Eclipse Diagram		Lunar Eclipse Diagram	
Umbra Definition			
Penumbra Definition			
What part of the shadow must you be in for a total eclipse?			
What part of the shadow must you be in for a partial eclipse?			
During what phase of the lunar cycle do you get a solar eclipse?			
During what phase of the lunar cycle do you get a lunar eclipse?			
Why do we not experience an eclipse every lunar cycle?			

Complete the table with information on tides (Ch 11 Lesson 3)

Which two objects in space are responsible for ocean tides?		
Which variable is more responsible for tidal forces: mass or distance of objects		
High Tide Definition		
Low Tide Definition		
How to calculate Tidal Range		
Spring Tide Definition		
Neap Tide Definition		
Time between two high tides		
Time between two spring tides		

<p>Draw a diagram with the Moon and Earth showing where Low and High Tide is occurring at any point</p>	
<p>Draw a diagram with the Moon, Earth, and Sun showing where Spring and Neap Tides occur.</p>	

Label the following diagram ordering the parts of the Solar System (Ch 12 Lessons 2,3,4)



Give the location for the following dwarf planets in our solar system (Ch 12 Lesson 4)

Eris	Pluto	Makemake	Ceres

Compare and contrast the following space objects (Ch 12 Lesson 2/4)

Planet	Both	Dwarf Planet
Asteroid	Both	Meteoroid
Asteroid	Both	Comet
Meteor	Both	Meteorite
Kuiper Belt	Both	Oort Cloud

Compare the following qualities of the inner and outer planets (Ch 12 Lessons 2/3).

	Inner Planets	Outer Planets
Other names		
Relative distance from the Sun		
Relative sizes		
Number of moons (low/high/none)		
Presence of ring systems		
Main order of layers (what state of matter and main elements involved)		

Compare/Contrast certain features of the Inner Planets (Ch 12 Lesson 2).

	Mercury	Venus	Earth	Mars
Atmosphere (how thick/ main gas)				
Greenhouse Effect (yes/no)				
Period of Rotation				
Period of Revolution				
Craters (Lots/few)				
High temperature				
Low Temperature				
Polar ice caps (yes/no)				
Planet order from the sun (give number)				

How many times farther from the Sun is the start of the Kuiper Belt (30 AU) than the asteroid belt (3.2 AU) Must show math for ANY credit (Ch 12 Lesson 3)

Compare/Contrast certain features of the Outer Planets (Ch 12 Lesson 3).

	Jupiter	Saturn	Uranus	Neptune
Major moons				
Visibility of Ring System				
Period of Rotation				
Period of Revolution				
Composition of layer below the atmosphere (state of matter/ main elements)				
Orientation of Rotational Axis				
Planet order from the sun (give number)				