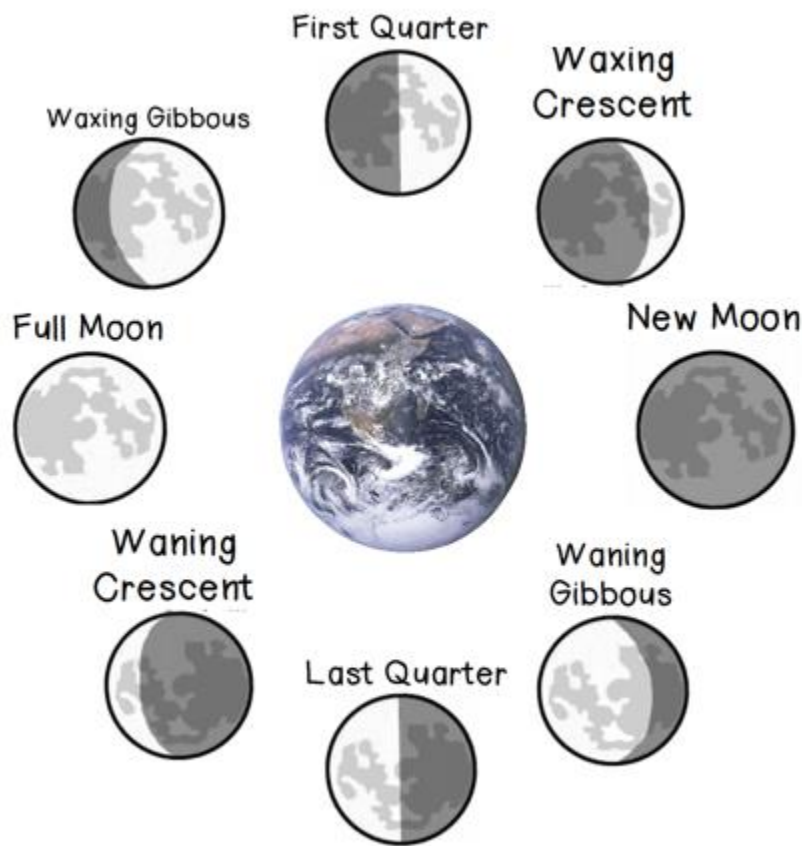


Name: \_\_\_\_\_

## Space Systems: Patterns & Cycles

1. Julie drew this diagram of the moon's phases. Help her to finish! Color the dark side of the moon for the Quarter Moon, New Moon, and Last Quarter Moon.  
(3 Points)



2. Is the moon smaller than the Earth, the same size as the Earth or larger than the Earth? (1 point)

The moon is smaller than the Earth.

3. During which phase do we see the whole moon illuminated? (1 Point)
- A. New moon
  - B. Crescent moon

### C. Full moon

4. What is the sun? What does it give the Earth? (3 points)

The sun is a star that gives us heat and light.

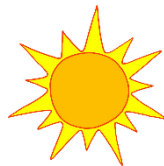
5. Jake watches his shadow at 12:00. If he goes back outside at 2:00, will his shadow look exactly the same? Why? (2 points)

It will look different. The sun is in a different place in the sky.

6. Jackie is wondering why she can see stars at night but not during the day. Can you explain to her why we cannot see the stars during the day? (3 points) – A 4 answer is still worth 3 points

<u>4</u>	<u>In the daytime, you can't see the stars from the Earth. They're still there, but when the Sun is on your side of the Earth, it sends us so much light that it drowns out the little lights of the stars.</u>
<u>3</u>	<u>In the daytime, you can't see the stars from the Earth because the sun sends us so much light that it drowns out the little lights of the other stars.</u>
<u>2</u>	<u>The stars are still there but you cannot see them.</u>
<u>1</u>	<u>You can't see them (not specifying that they are still there).</u>
<u>0</u>	<u>The stars are not there during the day or no response.</u>

7. Is it daytime or nighttime for Bobby and Sue? \_\_\_\_\_ Daytime \_\_\_\_\_  
(1 point)



8. Is it daytime or nighttime for Jason and Sarah? \_\_\_\_\_ Nighttime \_\_\_\_\_  
(1 point)



9. Match the season to its picture. (4 points)

\_\_\_A\_\_\_ Winter

\_\_\_C\_\_\_ Summer

\_\_\_D\_\_\_ Spring

\_\_\_B\_\_\_ Fall

a.



c.



b.



d.

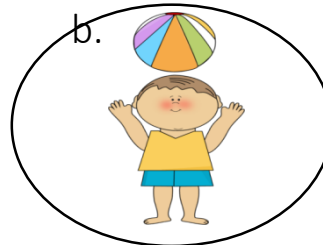


10. Circle the season that has longer days with more daylight outside. (1 point)

a.

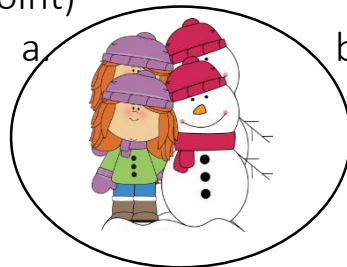


b.



11. Emma is jumping in a leaf pile during the fall. What season will she have next? (1 point)

a.



b.



12. How do you know what season comes next? (3 points) – A 4 answer is still worth 3 points

<u>4</u>	<u>Seasons are based on the rotation of the Earth around the sun and change at the same time each year. I know that that the seasons occur in a cycle and after Fall, comes winter.</u>
<u>3</u>	<u>I know that that the seasons occur in a cycle (or pattern) and after Fall, comes winter.</u>
<u>2</u>	<u>Winter comes after Fall.</u>
<u>1</u>	<u>Winter is next or incorrect answer with reasoning that seasons come in a cycle.</u>
<u>0</u>	<u>Inncorrect response or no response.</u>

13. Draw arrows to show the direction we see the sun move through the sky. Remember, the sun isn't actually moving, we are! Label in which direction the sun seems to rise and set. (3 points)

