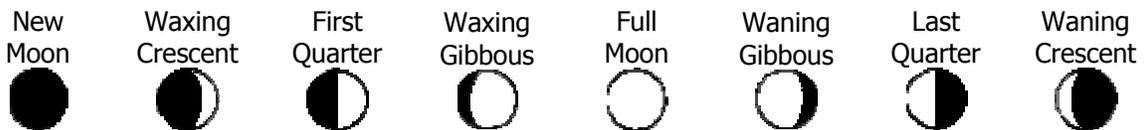


Name _____

Birthday Moons

Purpose: To investigate the changing shape of the moon.

Background Information: There are 8 named moon (or lunar) phases:



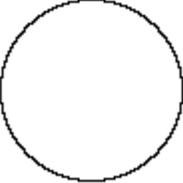
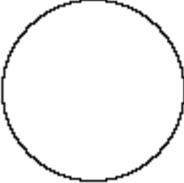
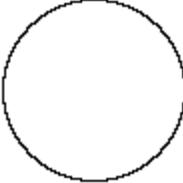
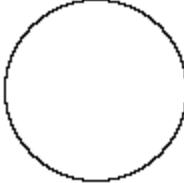
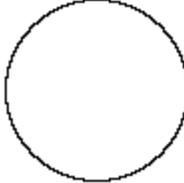
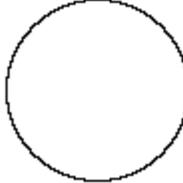
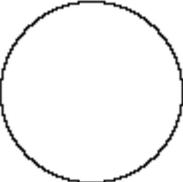
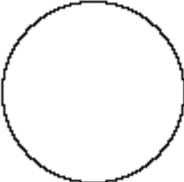
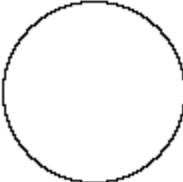
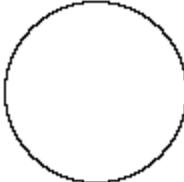
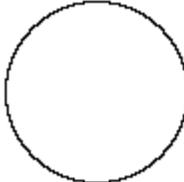
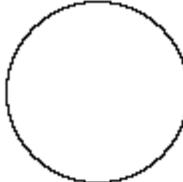
Materials:

Computer with internet connection	Pencil
Resource websites: http://liftoff.msfc.nasa.gov/academy/universe/MOON.HTML http://tycho.usno.navy.mil/vphase.html http://www.stardate.org/nightsky/moon/	

Procedure:

1. Use one of the websites listed above to observe the phase of the moon on your birthday THIS YEAR.
2. Using your pencil, diagram the moon exactly as it appears on your birthday.
3. Diagram how the moon will look every three days after your birthday for the next 30 days. Leave the last cell empty for now.

Data:

<p>Your birthday moon</p>  <p>Date _____</p>	<p>3 days after your birthday moon</p>  <p>Date _____</p>	<p>6 days after your birthday moon</p>  <p>Date _____</p>	<p>9 days after your birthday moon</p>  <p>Date _____</p>	<p>12 days after your birthday moon</p>  <p>Date _____</p>	<p>15 days after your birthday moon</p>  <p>Date _____</p>
<p>18 days after your birthday moon</p>  <p>Date _____</p>	<p>21 days after your birthday moon</p>  <p>Date _____</p>	<p>24 days after your birthday moon</p>  <p>Date _____</p>	<p>27 days after your birthday moon</p>  <p>Date _____</p>	<p>30 days after your birthday moon</p>  <p>Date _____</p>	 <p>Date _____</p>

Data Analysis:

Describe the pattern you see in your diagrams of the moon.

In the last cell on the data table, **predict** the month moon phase by 33 days after your birthday.

Conclusions:

1. Do you think that the Moon will look the same on your birthday next year? Explain your answer.

2. Which phase is your birthday moon?

3. About how many days does it take for the Moon to go through a cycle of phases, in other words, how many days pass until the exact same Moon shape reappears?

4. Look at the diagram that is completely shaded (new moon). Count ahead 15 days (you may have to go back to the beginning). What do you notice?

5. Count ahead another 15 days. Now what do you notice?

6. What is a possible explanation for your observations in #s 4 and 5?
