Name: _____ Date Started: _____

HOMESCHOOL SCIENCE EXPERIMENT

OBSERVING THE PHASES OF THE MOON

OVER A MONTH

BIG QUESTION

How does the Moon's shape appear to change over time?

OBJECTIVE

To observe and record how the Moon's appearance changes over the course of about one month.

MATERIALS

- Observation journal or printed tracking sheet
- Pencil
- Calendar
- (Optional) Binoculars or a camera
- Clear night sky!

BACKGROUND

The Moon does not make its own light. We see it because sunlight reflects off the Moon's surface. As the Moon orbits Earth, the amount of sunlit part we see changes. These changes are called the phases of the Moon.

THE MAIN PHASES

- New Moon (not visible)
- Waxing Crescent (right side grows)
- First Quarter (right half lit)
- Waxing Gibbous (more than half lit)
- Full Moon (fully lit)
- Waning Gibbous (left side shrinking)
- Last Quarter (left half lit)
- Waning Crescent (left side shrinking)

PROCEDURE

1. Each night, go outside after dark and look at the Moon.
2. Draw what the Moon looks like in the space provided for that date.
3. Shade the part of the Moon that is lit.
4. Write the phase name (use the list on the left if needed).
5. Write any notes about the Moon's position, brightness, or anything else you notice.
6. Continue for about 30 days.

★ *TIP: Try to observe around the same time each night for best results.*

DAY	DATE	DRAW THE MOON (Shade the lit part)	PHASE NAME	NOTES
1		○		
2		○		
3		○		
4		○		
5		○		
6		○		
7		○		
8		○		
9		○		
10		○		
11		○		
12		○		
13		○		
14		○		
15		○		
16		○		
17		○		
18		○		
19		○		
20		○		
21		○		
22		○		
23		○		
24		○		
25		○		
26		○		
27		○		
28		○		
29		○		
30		○		

REFLECTION QUESTIONS

- What pattern do you notice in how the Moon's shape changes?
- How many days did it take for the Moon to go from one full moon to the next full moon?
- What did you learn from this experiment?