Essential Questions:

1. Why does the moon look different every night?
2. Can you make predictions about the Moon’s appearance?
Lunar Cycle – the change in appearance of the Moon as it makes one full revolution around the Earth.
New Moon

• The first phase of the Moon and it appears unlit from Earth.

• The Moon is between the Earth and the Sun.
Waxing Crescent

• The lighted part of the Moon as seen from Earth is increasing.
• The light on the right is new and bright.
• Think about the shape of a crescent roll.
First Quarter

• The Moon is one quarter of the way through its cycle.

• From the Earth it appears to be half lit on the right.
Waxing Gibbous

• From the Earth, the Moon appears to be more than half lit on the right.
• The light is shaped like a football.
Full Moon

• From the Earth the Moon appears fully lit.
• The Earth is between the Sun and the Moon.
Quick Action – Lunar Rotation

- Find a partner and stand up.
- You are going to model the rotation of the Moon.
- Listen to your teacher for specific instructions.
Waning Gibbous

- From the Earth, the Moon appears to be more than half lit on the left.
- The lighted part is now decreasing.
Third or Last Quarter

• The Moon is three-quarters of the way through its cycle.
• From the Earth it appears to be half lit on the left.
Waning Crescent

• The lighted part of the Moon as seen from Earth is decreasing on the left.

• The shape of the light is crescent.

Lunar Cycle Vocabulary
Describe the Phases

1. Cut out the Moon Phase Basics template
2. Glue it to your journal along the 2 skinny tabs
3. Answer the questions

Describe the light on a waxing Moon

The light is getting larger from the right side of the Moon.

Describe the light on a waning Moon

The visible light is getting smaller on the left side of the Moon.

Describe a crescent shape and draw one.

A crescent shape describes the light when it looks like a sliver or small piece of the Moon.

Describe a gibbous shape and draw one.

A gibbous shape describes the light when it's more than halfway lit. It is football shaped.
Lunar Cycle Model

1. Cut out the 3 lunar cycle templates.
2. Glue them as a flip book into your journal.
3. Page 1 should be on top.
Shade the moons to indicate which area is light and which is dark from space.
Shade the moons to indicate how we would see the moon if we were standing on Earth.

Which direction does the moon revolve around the Earth?

Counter-clockwise from this viewpoint.

Quick Action – Lunar Cycle (Page 2)
Approximately how many days does it take to go from one moon phase to another?

3.5 Days

Approximately how many days does it take to complete ¼ revolution?

7 Days (about a week)

Approximately how many days does it take to complete the entire lunar cycle?

29.5 Days (about a month)
Quick Action – Predict the Phase

- Waning Gibbous
- Waxing Crescent
- Waxing Gibbous
- Waning Gibbous, Waning Crescent
Lunar Cycle Model

1. Cut out the lunar calendar template.
2. Glue it into your journal.
3. Wait for teacher instructions.
# Quick Action – Lunar Calendar

## MONTH-AT-A-GLANCE BLANK CALENDAR

<table>
<thead>
<tr>
<th>Sunday</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
</tr>
</thead>
</table>
Can you...

1. Describe why the Moon changes shape?
2. Predict the phases of the Moon?
3. Label a blank lunar cycle diagram?