

# MOON PHASES





## Next Giant Leap: Moon Phases

### Objective:

Students assemble a model from cups and paper that will help them to understand the names of the Moon phases and how Moon phases occur.

### Materials Needed:

- |  |                          |
|--|--------------------------|
| ✓ 16oz Clear Plastic Cups                            | ✓ Sheet White Copy Paper |
| ✓ Black Permanent Marker                             | ✓ Scissors               |
| ✓ (Optional) 1.5-inch Diameter Printed Yellow Circle | ✓ Tape                   |
| ✓ Yellow Construction Paper                          | ✓ Circle Stencil         |

### Summary of Student Action:

Students make a model using cups to learn about the names of the different Moon Phases. There will be two plastic cups: For the first cup, students line a piece of white copy paper on the inside of the cup and paste the yellow circle cutout onto it. Students then place the first cup into the second cup. For the second cup, students draw out all eight phases of the Moon using the black permanent marker by tracing the outline of the yellow circle. Students label the Moon phases. Once completed, students then rotate the second cup to see the different Moon phases.

### Setup Instructions:

- (Optional) Print out at least 10 copies of the 1.5-inch circle sheet on yellow construction paper. Cut the printed circles into groups of three or less to allow them to be spread out at the station.
- If not using printed circle template, lay out sheets of the yellow construction paper.
- Lay out a few copies of the provided Moon Phases sheet for student reference.
- Lay out materials: scissors, markers, cups, copy paper, tape, and circles or stencils.

### Additional Notes:

Make sure there is enough space for all eight phases of the Moon on the cup. Suggest that students draw the full Moon, new Moon and the two quarter Moons first before filling in the gibbous Moons and crescent Moons in the remaining spaces. Instructions sheets for both options (with and without using templates) are provided.



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## Why does the Moon have different shapes?

**Your task:** Make a model that will help explore the names and shapes of the different phases of the moon.




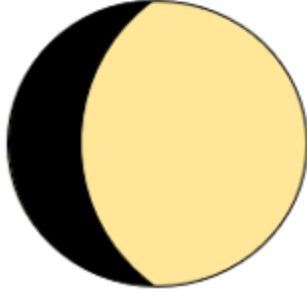
**You will need:**

- ✓ 2 large clear plastic cups
- ✓ 1 Black permanent marker
- ✓ 1.5-inch diameter yellow circle
- ✓ 1 piece of white paper
- ✓ Scissors
- ✓ Tape

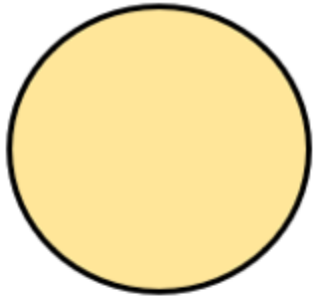
**Procedures:**

<p>1. Fit the white paper inside the cup so that the entire inside is covered. Tape the paper to the inside of the cup.</p>	
<p>2. Cut out one yellow circle from the Yellow Circle Template at the station.</p>	
<p>3. Tape the yellow circle to the outside of the cup with the white paper. Tape it as close to the center of the cup as you can.</p>	
<p>4. Place the plastic cup with the white paper and yellow circle INTO the second plastic cup. <i>NOTE: We will draw on the second plastic cup in the following steps.</i></p>	
<p>5. Make sure you can see your yellow circle clearly. Using the permanent marker, write "Full Moon" underneath the full yellow circle and trace the outline of the yellow circle. This is what a Full Moon looks like on Earth.</p>	
<p>6. Turn the inside cup clockwise so that the yellow circle is now slightly to the side of the first label. With the permanent marker, draw and color in over the yellow circle so that it resembles the other phases of the Moon, starting with Waning Gibbous and ending with a Waxing Gibbous. Label them around the cup as you go.</p>	

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	<b>New Moon</b>
	<b>Waxing Crescent</b>
	<b>First Quarter</b>
	<b>Waxing Gibbous</b>

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**Full Moon**



**Waning  
Gibbous**



**Last  
Quarter**



**Waning  
Crescent**

# YELLOW CIRCLE TEMPLATE

