

# MOON PHASES

## Session 1: The Four Steps

Note: Wait for instructions before you start answering the questions here!

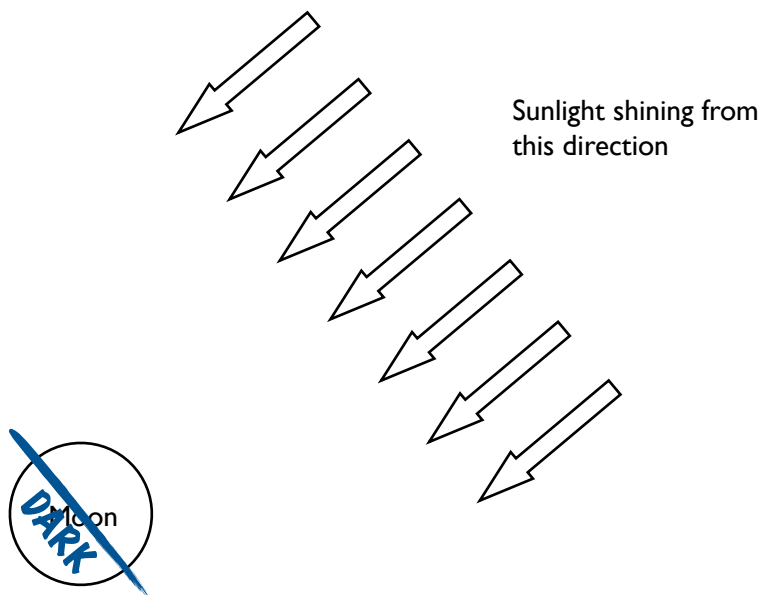
### I. How is the Moon lit up?

a. What do you think lights up the Moon?

the Sun

b. The diagram below shows an overhead view of the Moon. **Shade the part of the Moon** that you think will be dark (leave the lit part of the Moon white/unshaded).

overhead perspective  
(space-based perspective)



c. How much of the Moon is lit at any time

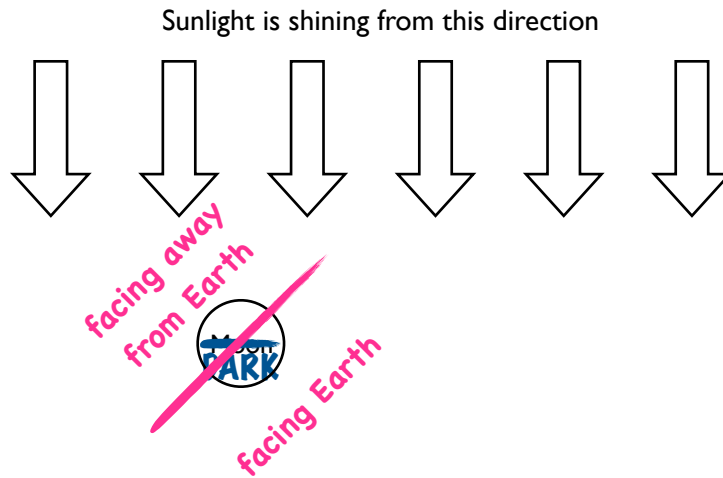
half

< write as a fraction >

d. Why is the dark part of the Moon dark? (respond below)

The dark part of the Moon is dark because all of the Moon's light comes  
from the Sun, and this is the side that faces away from the Sun

**2. Follow 4 STEPS to figure out the Moon's phase**



**Overhead perspective**  
NOT to scale



<b>Overhead Perspective</b> (space-based perspective)	
<b>Step 1</b>	<b>Shade</b> the part of the Moon (and Earth) that appears dark from overhead.
<b>Step 2</b>	<b>Draw</b> a line that divides the Moon into the halves facing Earth and facing away from Earth. <b>Label</b> the two sides of the Moon (“facing Earth” / “facing away from Earth”).
<b>Step 3</b>	<b>Describe</b> the side of the Moon facing Earth. <i>Circle one of the five choice below</i> ALL DARK <u>MOSTLY DARK</u> HALF-LIT/HALF-DARK MOSTLY LIT ALL LIT
<b>Earth-Based Perspective</b>	
<b>Step 4</b>	Use the overhead view above to imagine what the Moon looks like from Earth. <b>Predict</b> if the light is on the Moon's left or right (when viewed from Earth's Northern Hemisphere). <i>Circle one of the two choice below</i> LEFT <u>RIGHT</u>

**Earth-Based Perspective:**

In the box to the right, **draw** what you think the Moon looks like from Earth (in the Northern Hemisphere).

