

LUNAR OBSERVING - THE APOLLO LANDING SITES

Name: _____

[no lab partners - everyone must complete their own lab write-up]

Part 1: Observing the Apollo Landing Sites on the Moon

Between 1969 and 1972, 12 men walked on the Moon's surface on 6 different missions. The landing sites were carefully chosen for scientific, operational, and safety considerations. Observe as many of these landing sites as possible and develop some understanding of why they were chosen.

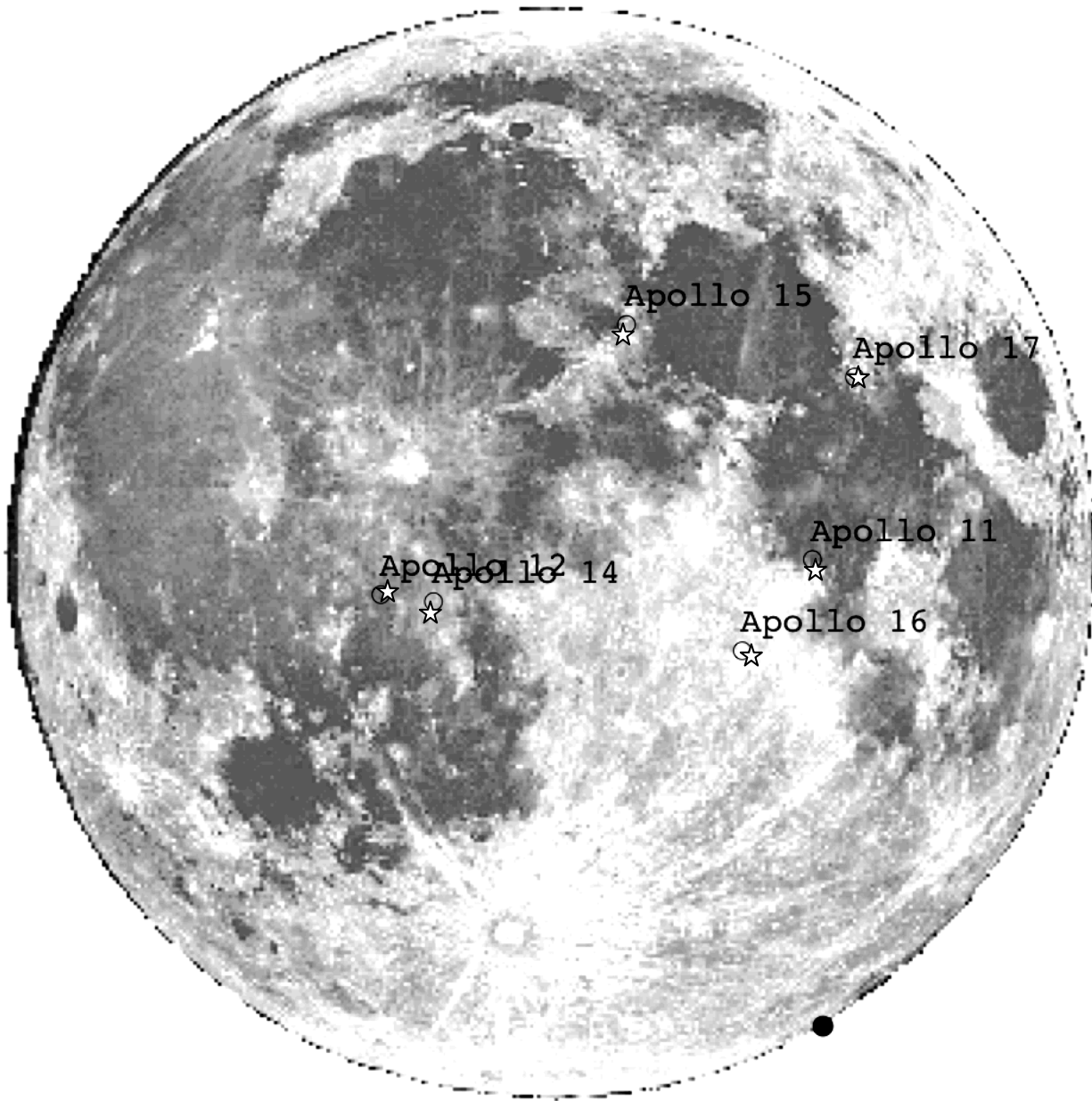
1. Observe the Moon with your "naked eye", the finderscope, and the eyepiece of the 8" telescope. Complete the following using the attached Moon map. *[Caution: The directions on the map might not correspond with what you see through the finderscope or eyepiece. The view through the eyepiece could be flipped, inverted, rotated, or all of the above. You must identify the major surface features].*
 - i. Carefully and *accurately* sketch the location of the **terminator** tonight (the line between the sunlit and dark side of the Moon).
 - ii. Indicate which side is sunlit.
 - iii. Label the directions of North and East on the Moon map.

2. Circle the landing sites can you see tonight on the sunlit side of the Moon?

11 12 14 15 16 17

3. Carefully observe the Apollo 11 and Apollo 16 landing sites. They are very different kinds of terrain. Describe below how they differ. Which one looks like a "safer" place to land? Which one seems to be more interesting scientifically? Why?

The Apollo Landing Sites



Warning: This map might not correspond to what you see by eye, and it certainly won't match the directions you see in the eyepiece. On this map:

- carefully and accurately sketch the terminator
- identify which side is dark
- label North and East on the map (with arrows)

Part 2: Detailed Observation of a Landing Site

Pick a landing site as close as possible to the terminator (but still in the sunlight). With the 8" telescope and the high-power eyepiece, locate the landing site and **make a detailed sketch** (on bottom of this page) of what you see in the area (use a pencil!). Use the shadows to identify mountains, craters, etc. (you will learn more about these in the Cratering Lab and the Lunar Features Lab). Make sure you **indicate directions** (North and East) and use an arrow to indicate the **direction TO the Sun** on your sketch (you might need to refer to the last observing lab to remind yourself how to identify direction in the eyepiece).

Your detailed sketch of Apollo ____ landing site, which is located in what region on the Moon (use the map on the next page or on-line references)
