

STUDENT INSTRUCTION AND ANSWER SHEET

Activity 1: Exploration-How many craters are on the Moon?

Below is a 2.7 square kilometer (2.7 km²) image of the Apollo 14 landing site on the Moon. You can divide the Moon's surface up into 14,000,000 such patches. Write a step-by-step plan for estimating the number of craters on the Moon that are larger than a football field. After you have shown your plan to your teacher, carry out your plan and compare your results to the class average.

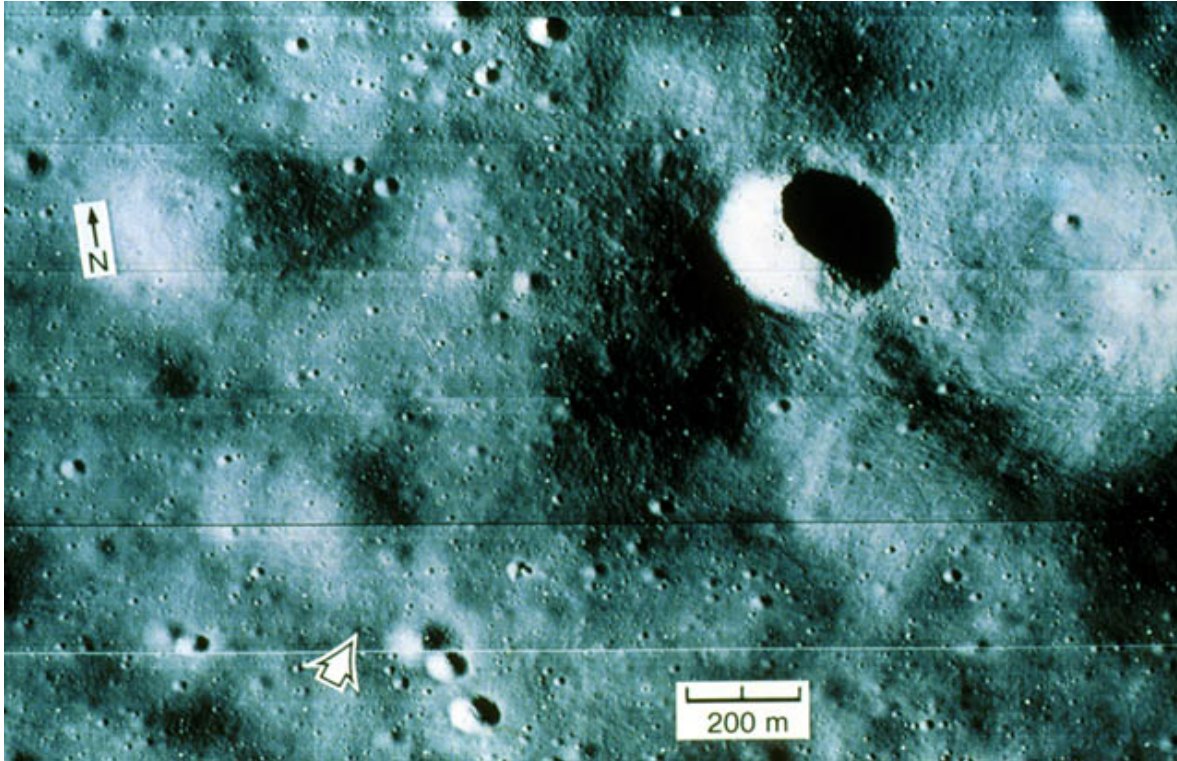


Image Source: <http://www.nasm.edu:80/APOLLO/AS14/a14landsite.htm>

A. Record your step-by-step plan in the space below. What was your estimate for the number of football field sized craters?

B. Describe why your estimate might increase or decrease if a different picture of the Moon's surface were used.

C. How would your estimate change if you were estimating the number of craters that are smaller than a football field or larger than your entire school (including the parking lot and sports fields)?