

Moon Phase Puzzle



The moon is a fascinating object to look at. As it orbits us, the lighting changes giving us phases and making different features visible.

This activity starts with a set of 10 images at different phases of the moon at <https://rasc.ca/sites/default/files/MoonPhaseImages.pdf>

for printing on letter paper.

The Powerpoint <https://rasc.ca/sites/default/files/MoonPuzzlePpt.pptx> gives background information and walks students through it.

Students cut them out and fit them together in the order of the phases of the moon. They deliberately are at different angles, so the first step is to look for subtle features on the moon to orient them all the same way. Then the students are to arrange them in order.

The numbers give a code for a 10 letter word which relates to space travel. The “simplest code” is a=1, b=2 etc., but hopefully teams can figure that out.

The Powerpoint goes on to other aspects about the moon: rays from recent craters, how relative dates of features can be found and reasons NASA chose the Sea of Tranquility for the first landing on the moon.

Looking at the details of features on the moon improves the observing skills of students. This gives names of 6 features. It might inspire some to try for an observing certificate:

[https://rasc.ca/observing/explore-the-moon-observing-certificate.](https://rasc.ca/observing/explore-the-moon-observing-certificate)