

Why Looking at Space is Cool for Kids

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Figure caption: The author observes the crescent moon through a telescope during the late afternoon. You can zoom in and see the tiny moon.

Photograph by John A. Peterson

There are a lot of cool things to see in the night sky. There are many constellations like Pegasus or Orion and sometimes you can see the moon. I have spent time looking at the moon with my eyes, binoculars, and a telescope while earning my Astronomical League Lunar Observing certificate through the Chippewa Valley Astronomical Society.

Many people look at the moon, see the darker parts, and try to see a face or animals when the moon is near full, but the coolest things are best seen near the terminator. The terminator is the line between the light and the darkness on the moon, and it is where the sun is either setting or rising. The shadows are longest near the terminator, and long shadows make it easier to see things like craters and mountains.

The most common features on the moon are craters, mountains, and maria. Most of the moon is covered in craters. Craters are circular and can be from very small to very big. Small craters are smooth. Big craters have rims on the edges and the bigger craters have central mountain peaks in them. Some, like Copernicus, have rays pointing away from it. The biggest craters on the moon were filled with basaltic lava long ago and are now the dark parts of the moon like Mare Tranquillitatis (the Sea of Tranquility).

Parts of the moon with many craters are older than parts that have fewer craters. And craters that cover or break other craters are younger than the ones they cover. There are two large craters near the middle of the moon. You can see that Alphonsus (68 mi diameter) partially covers Ptolemaeus (95 mi diameter) using good binoculars or a telescope.

Mount Pico is an almost 8,000 foot mountain in Mare Imbrium. Mons Hadley is almost 15,000 feet tall and in a mountain range between Mare Imbrium and Mare Serenitatis. Both look really cool poking out of the shadow of the moon or making a long shadow during dusk and dawn.

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