

Moon Pie Posters

In this activity, children and their parents view posters and collect a pie piece at each poster. The pieces will be used in the Moon Pie Activity.

What You Need:

- 9 brightly colored poster boards
- Print-outs of text, enlarged and in color
- Print-out of different Moon images
- Tape
- Scissors
- 9 9x12" envelopes for pie pieces
- Several print-outs of Moon Pie Answers printed double-sided
- Area to display posters

What to Do:

Cut out the Moon Pie Answers. Separate the answers into individual piles; each pile should have numerous pieces with the same answer. Place each pile of answers into a separate envelope.

Place the text and images on the poster boards. Attach an envelope to eight of the posters so that the children can retrieve the answers.

Poster 1:

We're going back to the Moon!

In 15 years we'll have people living and working on the Moon for weeks to months at a time!

Learning how to live on the Moon will help us prepare to explore other places in our solar system – like Mars!

How old will you be?
What will your job be at a Moon base?

We need to learn more about the Moon before we can build a base.
What is the Moon like?

Poster 2:

Long Days and Long Nights

Earth spins once every 24 hours

The Moon takes 27 days to spin once!

The Moon's "day" is almost two weeks long –
and then it's dark for two weeks!

Poster 3:

The Moon does not have an atmosphere!

Atmospheres are important because they protect us from harmful solar radiation and help to keep temperatures stable.

Poster 4:

The Moon's temperatures range from **really hot** (+224 F) in the sunlight to **really cold** (-243 F) in the shade or darkness.

The temperature changes so much because there is no atmosphere to stabilize it.

Poster 5:

There is **no liquid water** on the Moon.

There may be frozen water – ice – in deep craters near the poles.

Poster 6:

Solar radiation levels on the Moon are dangerously high. There is no atmosphere or magnetosphere to block incoming radiation.

Poster 7:

The Moon is smaller than Earth, but because it has mass, it **DOES HAVE GRAVITY!**

The Moon's gravity is $\sim 1/6$ of Earth's.

Because there is less "pull" on you, you will weigh less and jump higher on the Moon!

Poster 8:

On its surface, the Moon's rocks have been smashed into a fine powder by lots and lots of asteroid impacts.

This lunar "soil" - regolith - can be 45 feet thick!

Poster 9:

We're going back to the Moon!

We need more information to help us prepare for our Moon base!

Several spacecraft are sending back information about the surface of the Moon – what it's made of, how hot it is, where good landing sites might be...

Some of the spacecraft going around our Moon right now are the Chandrayaan-1 from India, and the Kaguya spacecraft from Japan.

The America's Lunar Reconnaissance Orbiter will launch soon!

Poster Images

Possible images for posters:

<http://www.patrawlings.com/default.cfm>

<http://photojournal.jpl.nasa.gov/index.html>

http://nssdc.gsfc.nasa.gov/imgcat/hires/a11_h_40_5880.gif

<http://lunar.gsfc.nasa.gov/gallery.html>

<http://lcross.arc.nasa.gov/>