

THE SKY ABOVE
MISTER ROGERS' NEIGHBORHOOD



Henry Buhl, Jr.
Planetarium &
Observatory



One of the four
Carnegie Museums
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Pittsburgh, PA 15213

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Dear Friends,



If you've ever been fascinated by the way the clouds move across the sky or the way the Moon looks on a particular night, if you've ever marveled at a sunset or sunrise or at a glittering star on the horizon, then you already have a good start towards helping your child appreciate science and astronomy. Marveling, wondering, asking questions—for young children, those are the things they'll need for learning, about science or about anything.

We hope the pages in this pamphlet will help you reflect on some of the things that you and your child saw at our Neighborhood sky show. Whenever possible look at the sky together. Wonder together.

Every time you talk about what you experienced at the planetarium, you'll be helping your child to make the sky above your own neighborhood something to marvel about.

Kindest regards to all your family.

A handwritten signature in cursive that reads "Fred Rogers".

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When we introduce young children to the exploration of the universe around them, we set them on a lifelong path of learning and growing. "The Sky Above Mister Rogers Neighborhood" tries to help children understand some of the most basic science concepts. Sometimes, these concepts are confusing, even to adults, so we've included some basic science notes here to help you.

The Daytime Sky

- Clouds form when warm, wet air is cooled down. As the air cools, the moisture in the air forms water drops and ice crystals. Dark clouds have lots of water drops in them—that's where rain comes from.
- Although the Sun seems to move across the sky, coming up in the East and going down in the West, it doesn't move. It is actually the Earth spinning that gives us that perception.
- The Sun is a star. The Sun is much, much closer to us than all the other stars. That's why the Sun is so bright. You can remind children not to stare at the sun.
- The Earth spins and revolves around the Sun. It *spins* completely around every 24 hours — each day. The Earth also *revolves* around the Sun. It takes a full year for the Earth to go all the way around the Sun.

The Nighttime Sky

- The stars are like our Sun, but they are very, very far away. The stars are always there, but we can't see them in the daytime because the sky is so bright. We can see them at night because the sky is so dark. The lights from the buildings and houses in the city makes the sky less dark, so we can't see the stars as well as we can in the country, away from the city lights, or in the planetarium. There are trillions of stars in the universe.
- The Moon has no light of its own. It looks bright because the Sun shines on it. You can sometimes see the Moon in the daytime. It's always in the sky, revolving around the Earth, but we can't always see it.
- The Moon doesn't change its shape, but it looks different on different nights. Sometimes it's a full Moon—big and a full round circle. Sometimes it's just half a Moon. And sometimes just a crescent. But the Moon itself isn't changing shape—it just looks like it does.

After the sky show, you might want to encourage your child to think about and wonder about some of the things you've seen. Here are some simple activities to help you get started.

In the Daytime

The weather today is _____

When I look up in the sky I can see _____

The color of the sky is _____

Here is a drawing of three different clouds that I see.

In the Nighttime

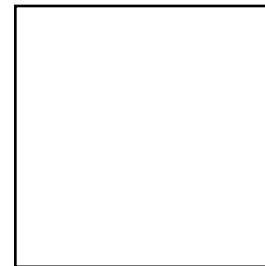
At night when I look up in the sky I can see _____

Sometimes I can also see _____

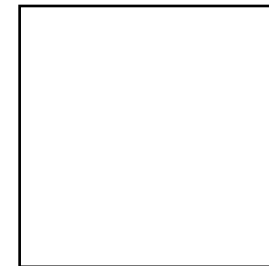
Here is a picture of the nighttime sky.

The Moon

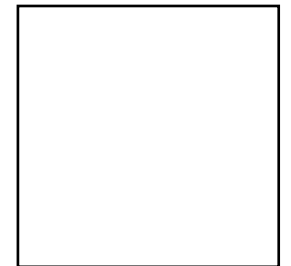
Here are three drawings of what the moon looked like on three different nights.



Date: _____



Date: _____



Date: _____

Here are some different ways you can help your child appreciate and understand the sky above.

- Take a walk together, in the daytime...and the nighttime.
- Marvel at a sunset.
- Make a pretend telescope from a paper towel tube or a pair of pretend binoculars from two toilet paper tubes.
- Lie down on your backs and look at the clouds. What do they look like? How do they change?
- Feel the difference between rocks and cement that have been warmed by the Sun and those that have stayed cool in the shade.
- Notice your shadow. Is it in front of you or behind you? Is it tall or short? See how it changes at different times of the day.
- Look for constellations in the nighttime sky. Make dot-to-dot designs on paper and make up your own star pictures.
- Use a flashlight to represent the Sun and shine it on a globe. Spin the globe slowly and talk about how the Sun (the flashlight) stays in one place, as the Earth spins all day and all night. When it's daytime on one side of the Earth, it's nighttime on the other.
- Go to the library and find some books about the sky.

Suggested References for Further Exploration

Books:

The Big Dipper
By Franklyn Branley

The Cloud Book
By Tomie de Paola

Dogs in Space
By Nancy Coffelt

Do Stars Have Points?
By Melvin and Gilda Berger

It Looked Like Spilt Milk
By Charles G. Shaw

The Magic School Bus Lost in the Solar System
By Joanna Cole, Bruce Degen

The Moon Book
By Gail Gibbons

The Moon Seems to Change
By Franklyn Branley

The Planets in Our Solar System
By Franklyn Branley

Stars and Planets
By David Levy

Sun-Day, Moon-Day
By Cherry Gilchrist and Amanda Hall

What Makes A Shadow?
By Clyde Bulla

Web Sites:

NASA Spacelink
<http://www.spacelink.nasa.gov>

Star Child Project
<http://starchild.gsfc.nasa.gov/docs/StarChild>

SpaceKids
<http://www.spacekids.com>

Carnegie Science Center
<http://www.carnegiesciencecenter.org>

Family Communications
<http://www.misterogers.org>

Call 412.237.3400 for updated information or check our website at www.CarnegieScienceCenter.org.

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