OUTER SPACE AND Planets

Lesson Plans for Preschool, Kindergarten, Daycares and Home Schools

©Great Hall Academy of Learning
http://www.teacherspayteachers.com/Store/Great-Hall-Academy-Of-Learning
Circle Time Activity

Circle time activity:
The Earth Goes Around the Sun

Choose one child to be the sun. Give him or her a yellow ball. Ask another child to be the earth. Give him or her a blue or green ball. Mark the floor with masking tape where the child will start and stop. Have the earth child walk around the sun while spinning. Have him or her stop on the masking tape. Tell the children it takes 365 days for the earth to go all the way around the sun. Let other children have a chance to be the sun and earth. You can explain a day by having the sun child hold a flashlight. Turn out the lights, and have the earth child turn around in the same spot.
Circle Time Activity

Day or Night?

Materials needed: A cut out sun and a cut out moon for each child. (A template follows this page of a sun and moon.)

Ask the children questions about things they do. If it is something they do during the day, they should hold up their sun.

If it is something they do at night, they should hold up the moon.

Suggestions: When do you...... Brush your teeth? Go to bed? Go to school? Eat breakfast? Eat dinner?

EXTENSION: Have the children decorate their own sun and moon for this project at your writing table or art table. Attach them to craft sticks. Have them bring these to circle time!
Circle Time
Outer Space Books for Children

Draw Me A Star by Eric Carle
The Night Sky by Alice Pernick
On The Moon by Stan and Jan Berenstain
Ottie and the Star by Laura Jean Allen
Our Stars by Anne Rockwell
Twinkle, Twinkle, Little Star by Iza Trapani
Roaring Rockets by Tony Mitton and Ant Parker
I Want to Be an Astronaut by Byron Barton
What's Out There?: A Book about Space by Lynn Wilson
Me and My Place in Space by Joan Sweeney
On the Moon by Anna Milbourne
Papa, Please Get the Moon for Me by Eric Carle
Circle Time

Space is big, dark and cold. There is no air or water in space. Astronauts explore space in specially designed spacecraft. Robots are also used to explore space because they do not have to breathe air or sleep or eat and survive for a very long time in space.

There are 8 planets: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune. The Sun is in space and is a huge ball of hot gases.

Astronauts are community helpers. Talk to the children about how astronauts get to the moon and survive their visits. Talk about what they wear, how they breathe in space, and what they eat. Discuss why astronauts go to the moon. Ask the children if an astronaut could bring back a crater. Talk about where the space shuttles take off and where they land. Show pictures of the moon. Talk about how there aren’t any plants, people, or animals on the moon. Ask the children what people, plants, and animals need that they can’t find on the moon.
Moon Day is celebrated on July 20th each year because the first people landed on the moon on that day in 1969. The Journey was made in the spaceship Columbia by three astronauts: Neil Armstrong, Edwin Aldrin, Jr. and Michael Collins, who served as pilot. Neil Armstrong was the first to set foot on the moon saying, “That’s one small step for man, one giant leap for mankind.” Then he and Edwin Aldrin walked on the moon for about two hours, where they put up a flag, gathered rock samples and took photographs.

There are many faraway objects in space. Some of these are moon, stars, and planets. We live on a planet called earth. There are eight other planets. These eight planets move around the sun and, along with their moons, make up the solar system. We learn about space by looking at it through instruments such as telescopes and by sending specially trained people called astronauts into space to find out more about it. Space is big, cold and dark. There is no air or water in space. Some people think there might be life in other parts of space.

Show the children pictures of the sun, a full moon, a crescent moon, and a star. Discuss the shapes of each one. Have the children trace a circle, crescent, and star shape on paper.
Circle Time

Information about our planets:
Mercury: It is the planet closest to the sun. It is very hot.
Venus: It is the brightest planet in the sky.
Earth: We live on earth, there is land and water.
Mars: Is the red planet.
Jupiter: is the largest planet.
Saturn: Has rings made up of rocks and dust.
Uranus: Has 27 moons!
Neptune: Is the furthest planet from the sun
Climb aboard the Spaceship!

Sung to "itsy bitsy spider"

Climb aboard the spaceship,
We're going to the moon.
Hurry and get ready,
We're going to blast off soon.
Put on your helmets
And buckle up real tight.
Here comes the countdown,
Let's count with all our might.
10-9-8-7-6-5-4-3-2-1---BLAST OFF!!

We're Flying added

Sung to: "The Farmer in the Dell"

We're flying to the moon
We're flying to the moon.
Blast off, away we go
We're flying to the moon.

Other verses:
We're going in a spacecraft
We're walking out in space
We're landing on the moon
We're collecting moon rocks
We're flying back to Earth
We're landing on the Earth
I LOVE TO RIDE IN MY SPACESHIP
Tune: “My Bonnie Lies Over the Ocean”
I love to ride in my spaceship. 
I love to sail through the stars. 
I love to see all the planets, 
Like Jupiter, Venus, and Mars. 
Sailing, Sailing, 
I love to sail through the stars, stars, stars, 
Seeing planets 
Like Jupiter, Venus, and Mars.

5 Brave Astronauts
5 Brave astronauts floated into space. (move hand up in the air)
The first one disappeared without a trace. (hide thumb)
The second one somersaulted past the moon. (hide pinky)
The third one entered the atmosphere too soon. (hide ring finger)
The fourth one took off counting ten to zero. (hide middle finger)
And the fifth one landed safely like a hero. (Bring hand down to ground).
Then WOOSH when the fuel and out went the lights.
And the 5 brave astronauts went on another flight!

©Great Hall Academy of Learning
http://www.teacherspayteachers.com/Store/Great-Hall-Academy-Of-Learning
Eight Planets
Sung to: "There are seven days in the week"

There are eight planets,
There are eight planets,
There are eight planets in space.
There are eight planets,
There are eight planets,
There are eight planets in space.
Mercury, Venus, Earth and Mars,
Jupiter, Saturn, Uranus,
And Neptune are the planets,
are the planets in space

Orbiting Around The Moon
Sung to: "Coming around the Mountain"

We'll be orbiting around the moon, yes we will
We'll be orbiting around the moon, yes we will
We'll be orbiting around the moon X 3
Yes we will

other verses
We'll be landing on the Moon
We'll be walking on the Moon
We'll be blasting off again
We'll be landing back on Earth
Crafts

Planets

Materials Needed: Styrofoam balls, paint, paintbrushes and string
Let the children paint their own planets. Provide them with the styrofoam balls and different kinds of paint.
Put some black construction paper on the wall and hang the children’s planets.

Space Rockets

Materials Needed: Paper towel tubes (1 for each child plus a couple of extra); card stock or other sturdy paper; glue gun; paint.
In advance, shape the card stock or sturdy paper into triangular tops to fit on top of the paper towel tube as the rocket top. Glue them onto each paper towel tube.
In advance, cut 2 slits on the bottom of the paper towel tubes.
In advance, using the extra paper towel tubes (or you can use stock paper), cut a "stand" and place it into the slits. This will make the bottom look like a rocket with a stand and will help the rocket ships to stand up while painting!
Provide each child with a rocket ship and paint and let them decorate away! When complete, hang from your ceiling!
EXTENSION: When dry, the children could paint over them with some watered down glitter glue.
Crafts

Moon Craters
Cover bubble wrap with plaster of Paris. Let dry and peel off. Let the children paint.

Telescope Craft
Have children decorate a paper roll. Either with paint, markers or stickers.

Paper Plate Planets
Cut paper plates into different sizes to represent each planet. Children create planets with crayons, markers, or paint.

Glow-in-the-Dark Space Scene
Have children use glow-in-the-dark paints, crayons or markers to create night scenes on dark black or blue construction paper.

Coffee Filter Planets
Let the children paint a coffee filter with watercolors, then glue it onto black paper.

Planet Earth
Children cut a circle out of white construction paper, cover the circle with blue tissue paper, and paint over it with liquid starch to make it stick. They tear pieces of green construction paper and glue them on the circle for the land.

Constellation Viewers
The children color a paper towel tube with markers. We cover the end with a circle of black paper, attach it with a rubber band, and poke holes in the paper with a toothpick. When the viewer is held up to the light it looks like stars are shining through.
Math

Estimation

Provide the children with a bag of different colored plastic stars. (These can be found in dollar stores.)

Open the bag of and have the children guess:

1. How many stars are in the bag?
2. How many red ones are there?
3. How many yellow ones are there?
4. How many green ones are there?
5. How many pink ones are there?

Give each child a turn to sort and count each one. See who came closest to guessing the right answer.
Counting and Reading

Use the next three pages for counting and reading. Depending on the ages of the children, you can separate the words and the numbers and have the children place the numbers in order from one to nine. Younger children can place the cards in order, while the older children have to place the numbers and the words in order from one to nine.

Included are also the same set in Spanish and French.
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>One</td>
<td>Two</td>
<td>Three</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Four</td>
<td>Five</td>
<td>Six</td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Seven</td>
<td>Eight</td>
<td>Nine</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Uno</td>
<td>Dos</td>
<td>Tres</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Cuatro</td>
<td>Cinco</td>
<td>Seis</td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Seite</td>
<td>Ocho</td>
<td>Nueve</td>
</tr>
</tbody>
</table>

©Great Hall Academy of Learning
http://www.teacherspayteachers.com/Store/Great-Hall-Academy-Of-Learning
<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Un</td>
<td>Deux</td>
<td>Trois</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Quatre</td>
<td>Cinq</td>
<td>Six</td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Sept</td>
<td>Huit</td>
<td>Neuf</td>
</tr>
</tbody>
</table>

©Great Hall Academy of Learning
http://www.teacherspayteachers.com/Store/Great-Hall-Academy-Of-Learning
Counting Jar

To help children count and learn the values of numbers, provide them with jars and “moon rocks” (regular pebbles will work, just supervise closely to make sure the children do not put the pebbles in their mouths) and get them to put the right amount rocks in the jars.
Counting Jar
(Older children)
For older children who can count larger numbers, provide them with more rocks and get them to put the right amount in the jars.

50    75    100

©Great Hall Academy of Learning
http://www.teacherspayteachers.com/Store/Great-Hall-Academy-Of-Learning
Estimation

Have the children guess the amount moon rocks in a mystery jar. Record the guesses and then dump out and have the children count.

8  27  42

©Great Hall Academy of Learning
http://www.teacherspayteachers.com/Store/Great-Hall-Academy-Of-Learning
# Outer Space Memory Game

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>![Earth]</td>
<td>![Earth]</td>
<td>![Astronaut]</td>
</tr>
<tr>
<td>![Astronaut]</td>
<td>![Astronaut]</td>
<td>![Space Shuttle]</td>
</tr>
<tr>
<td>![Alien]</td>
<td>![Alien]</td>
<td>![Rocket]</td>
</tr>
<tr>
<td>![Alien]</td>
<td>![Alien]</td>
<td>![Space Ship]</td>
</tr>
<tr>
<td>![Alien]</td>
<td>![Alien]</td>
<td>![Space Ship]</td>
</tr>
<tr>
<td>![Sun]</td>
<td>![Sun]</td>
<td>![Rocket]</td>
</tr>
</tbody>
</table>
Addition

How many?

©Great Hall Academy of Learning
http://www.teacherspayteachers.com/Store/Great-Hall-Academy-Of-Learning
Science Activities

Experiment: Size is Relative

Materials:
2 peppercorns (Mercury and Mars)
2 peas (Venus and Earth)
2 plums (Uranus and Neptune)
1 grapefruit (Jupiter)
1 orange (Saturn)
1 basketball (the sun)

Process:
Put the items in the correct order beginning with the sun. Look at your solar system with the children and think how many mercury planets fit into the sun? How many earths equal the size of Saturn?
Science Activities

Bubble Map of the Universe

Materials:
Empty Cup
1/4 cup dishwashing soap
1 tbsp. powder paint
Spoon
Straw
Large sheet of paper

Process:
Mix the dishwashing soap with the powder paint into the empty cup.
Blow through the straw into the soap mixture until bubbles rise above the top.
Carefully lower the paper over the bubbles. Do not press it too hard.
Remove the paper.
Congratulations! You made the nightly sky with thousands of galaxies and endless number of stars.
Cooking Activities

Moon Rock Treat

Serving Size:
22

Ingredients:
250g milk chocolate
4 cups Coco Pops
200g mini white chocolate melts
2 cups mini marshmallows

Method:
Microwave the chocolate on high for 2 minutes stirring every 30 seconds until almost fully melted. Do this ahead of time. Stir until chocolate is smooth and fully melted. Allow to cool slightly.

Get the children to mix together the Coco Pop's, chocolate melts and marshmallows and add the melted chocolate. Be sure the chocolate is not too hot as it will melt the marshmallows.

Put a little vegetable or olive oil on the children’s fingers and roll the mixture into teaspoon sized balls and place onto a tray lined with greaseproof paper or in paper patty cups.

Refrigerate until required.

Serve as the afternoon snack!
Cooking Activities

Astronaut Food Snacks
Serve dried fruit such as apricots, dates, raisins, apple slices, banana chips. Add shredded coconut, pumpkin seeds,

Astronaut Pudding
Into a ziploc bag for each child, put the following: an eighth of a cup of instant pudding mix and a 1/4 cup milk. Make sure the bags are securely closed. Have the children gently knead the mixture until the pudding forms. Snip off one of the corners and encourage the children to squeeze the pudding into their mouths from the bag.

Cheesy Man on the Moon
Cut cheddar or other type of brick cheese into different sized chunks. Give the children pretzel sticks and let them put the chunks together to create their "man on the moon."

Edible Stars
2 slices of bread (for each child)
star shaped cookie cutters
strawberry jam, orange marmalade, grape jelly,
Have the children cut the bread into star shapes. Its easier if you toast the bread first! Have the children spread jam on their stars.
Reading

The next page has nine words for the children to read. With the younger children, read the word and look at the picture together. For older children, separate the word and the picture and have the child pick a word, read it and then match it to the picture.

The pages that follow the word page are a fill in the missing letter on the page and writing pages. Have the child read the sentence and use the dots to guide in printing or writing the words.
<table>
<thead>
<tr>
<th>Star</th>
<th>Sun</th>
<th>Rocket</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saturn</td>
<td>Venus</td>
<td>Mars</td>
</tr>
<tr>
<td>Earth</td>
<td>Jupiter</td>
<td>Neptune</td>
</tr>
</tbody>
</table>
I see a star
I see a star
I see a star
I see the sun

I see the sun

I see the sun
I see the earth

I see the earth

I see the earth

©Great Hall Academy of Learning
http://www.teacherspayteachers.com/Store/Great-Hall-Academy-Of-Learning
I see Saturn

I see Saturn

I see Saturn

©Great Hall Academy of Learning
http://www.teacherspayteachers.com/Store/Great-Hall-Academy-Of-Learning
I see Mars

I see Mars

I see Mars

©Great Hall Academy of Learning
http://www.teacherspayteachers.com/Store/Great-Hall-Academy-Of-Learning
Sensory

Fill the sensory bin with:
A set of plastic planets
Plastic stars
(Can be glow in the dark)
“Moon Rocks”
(grey, white and black pebbles)
Pom poms

Accessories:
Bowls, spoons, containers, cups, scoopers...etc.
Sensory

Make Your Own Moon Sand
You will need:
6 cups of play sand (preferably colored sand)
3 cups of cornstarch
1 1/2 cups of cold water

Mix the sand and cornstarch together. Add water, and mix everything together with your hands. Work through until you no longer see the white cornstarch. Add toys or mold into shapes. Store in airtight container. You may have to add a couple teaspoons of water the next time you play with moon sand.
Sensory

Sun and Moon Dough
Materials: Flour, salt, oil, cream of tartar, water, yellow and blue food coloring, mixing bowl, teaspoons, tablespoons, saucepan, stove.

Activity: Make playdough by combining the following items in a mixing bowl: 2 cups of flour, 1 cup of salt, 2 tablespoons oil, 4 teaspoons cream of tartar, 2 cups water. Divide this mixture into two bowls. Add four drops of yellow food coloring for the sun mixture and four drops of blue food coloring for the moon mixture. The consistency should be runny, so put the mixture in a saucepan and cook it on a stove or hot plate until it forms a ball. When it’s cool, have the children make a large sun and a large moon. They can make moon craters with thumb imprints. Then let the playdough harden.

Moon Mud...
In the bottom of a dish pan pour in equal parts of cornstarch and water. Add food coloring, if desired. Mix the cornstarch and water together to make moon mud. Let one child at a time put his or her hands

Moon Sand / Cloud Dough...
Some people call it moon sand and others call it cloud dough. It really doesn’t matter what you call it, JUST MAKE IT.

Ingredients:
5 cups of all purpose white flour
1 Cup of baby oil

Directions:
1.) Measure out the ingredients into a bowl.
2.) Mix together.
Fine Motor Activities

**Stickers**
Supply the children with space stickers and have them place them on a piece of paper.

**Stamps**
Supply the children with rubber stamps of outer space and planets and have them make a space scene with the stamps.

**Potato Planets**
Carve out a planet, sun or moon in a raw potato. Provide children with paint and have them dip the potato in the paint and then on to the paper.

**Tweezers / Tongs**
Have the children pick up plastic stars with tweezers or tongs.
Create a spaceship out of an old appliance box. Cover the window of the spaceship with black paper. Make pinholes to simulate stars.

Let the kids use flashlights inside the spaceship. Crumple newspaper on the floor and cover with a gray sheet. The children can then "go walking on the moon".

Have white jogging suits and helmets for children to dress up in to mimic space suits. Add white “moon” boots.

Set up telescopes, binoculars and magnifying glasses.

Provide moon rocks for children to gather using tongs and plastic bags.

Play some space music on a cd player.
Block Play

Have the children build a space station. Add paper towel tubes, shoe boxes, rocket ships and plastic little people.

Add dollhouse people and furniture to the block area to recreate life in a rocket ship or at Mission Control!
Gross Motor/Outdoor Play

Getting Fit Obstacle Course
Astronauts need to be in very good physical health! Help your preschoolers train for NASA by setting up an obstacle course!
Use whatever you have available: Circle mats to hop from one to the other (or precut paper circles taped to the floor), a tunnel to crawl through (chairs with a blanket over them work well!); a balance beam to walk on or hop over!

We’re Going on a Space Trip...
(We’re Going on a Bear Hunt)
After the “mission commander” (teacher) chants a line, the flight crew (students) repeats it and the Motions associated with it.
We’re going on a space trip (salute)
Pack your flight bag (put items in a bag and zip it up)
Get on your spacesuit (get dressed)
Let’s climb on board (climb steps”
Buckle your safety strap (fasten belt)
Countdown time! 1 0-9-8-7-6-5-4-3-2-1 –Lift off!
I see the Moon. (Point ahead of you)
Can’t go over it (point above you)
Count go under it (point below you)
Have to go around it
Continue the chant with some obstacles in your way. Sun, planet, asteroid, meteor, comet... Complete the chant by pantomiming, ” Our Mission is completed (clap) Time to turn back. I see the comet. I see the meteor.
Astronaut in Space Activity...
Have the children dramatize an astronaut flying to the moon. First they prepare for their journey by putting on their space suits, goggles, helmets, and space gloves. Then they hook up their oxygen tanks. They prepare for take off by sitting down and fastening their seat belts. Have the children put their knees up and grab their ankles. 10-9-8-7-6-5-4-3-2-1 - Blast off! The spaceship has landed on the moon. The children pretend to get out of the ship to take a moonwalk. Gravity’s force is weaker on the moon, so it’s harder to walk.

Have the children each find a partner to walk with on the moon. Have them jump, walk, and give each other a moon hug. Ask them what they see on the moon plants, animals, aliens? Have them eat their lunches from tubes. Then have them walk back to the spaceship to return to Earth. 1 ~9-8-7-6-5-4-3-2-1 – Blast off. The space ship slows down, as gravity finally pulls the ship in closer and close to Earth.

Moonwalk
We listen to slow music and pretend we were on the moon, moving in slow motion.
Pass the Sun

Provide a yellow ball (sun) for your children to pass. When the music stops the child holding the sun is out.

Sing: (To the tune of ``The Farmer in the Dell``)

Pass the sun around, Pass the sun around,
Pass the sun on Monday morning,
Pass the sun around.

The earth goes around the sun,
The earth goes around the sun,
The earth goes around the sun, every day
The earth goes around the sun
Terms of Use

Thank you for your purchase! By purchasing this resource, you are agreeing that the contents are the property of The Great Hall Academy of Learning and licensed to you only for classroom/personal use as a single user. I retain the copyright, and reserve all rights to this product.

YOU MAY:

Use items (free and purchased) for your own classroom students, or your own personal use.

Reference this product in blog posts, at seminars, professional development workshops, or other such venues PROVIDED there is both credit given to myself as the author and a link back to my TPT store is included in your post/presentation.

YOU MAY NOT:

Claim this work as your own, alter the files in any way, or remove/attempt to remove the copyright/watermarks.

Sell the files or combine them into another unit for sale/free.

Post this document for sale/free elsewhere on the internet (this includes Google Doc links on blogs).

Make copies of purchased items to share with others is strictly forbidden and is a violation of the Terms of Use, along with copyright law.

Obtain this product through any of the channels listed above.

Thank you for abiding by universally accepted codes of professional ethics while using this product.

If you encounter an issue with your file, notice an error, or are in any way experiencing a problem, please contact me and I will be more than happy to help sort it out! greathallacademy@gmail.com

©Great Hall Academy of Learning
http://www.teacherspayteachers.com/Store/Great-Hall-Academy-Of-Learning
Thank you very much for your purchase, if you enjoyed these lesson plans, please leave a comment and rating at: http://www.teacherspayteachers.com/Store/Great-Hall-Academy-Of-Learning

Front page border was kindly provided by: http://www.teacherspayteachers.com/Store/Krista-Wallden

Front page clip art was kindly provided by: http://www.teacherspayteachers.com/Store/Winchester-Lambourne

Questions? Please email: greathallacademy@gmail.com
Other products you will find useful!

Dinosaurs
http://www.teacherspayteachers.com/Product/Dinosaur-Lesson-Plans-244303
Other products you will find useful!

Triangle Lesson Plan

http://www.teacherspayteachers.com/Product/Triangle-Lesson-Plans-1196083

©Great Hall Academy of Learning
http://www.teacherspayteachers.com/Store/Great-Hall-Academy-Of-Learning
Other products you will find useful!

100th Day of School

http://www.teacherspayteachers.com/Product/100th-Day-of-School-1027299

©Great Hall Academy of Learning
http://www.teacherspayteachers.com/Store/Great-Hall-Academy-Of-Learning