

## Space Lesson Plans:

### Books that I own:

1. Now I Know Stars
2. The Stars' Trip to Earth
3. My First Book of the Planets
4. Twinkle, Twinkle (Sound Book)
5. Good-night, Owl!
6. Goodnight, Little Glover
7. GOODNIGHT MOON
8. Bedtime for Francis
9. The Bad Dream
10. The Berenstain Bears and the Bad Dream
11. The Berenstain Bears: In the Dark
12. Blue Skidoos to the Planets!

### Record:

Man on the Moon

### Cooking:

1. Solar System Cake (pg 105 of Children's Party Handbook).  
Will need 5 flat tuna cans for baking of 5 planets, 3-8 inch cake pans,  
and 1-9 inch cake pan
2. Astronaut Roll Ups: 4 apple, 4 oranges, and 2 tb butter; put seeded  
fruit in in a blender; butter a pan and bake at 200 degrees for 3 hours,  
with the door slightly ajar. Remove when dry. Cut into 12 pieces.  
Place pieces on waxed paper and roll them up.
3. Star Cookies: Cut out and bake. Decorate with icing:  
Coolest Stars are red  
Hotter Stars are orange, yellow and green  
Then: White Stars are even hotter  
Very Hottest: Blue

Spectrum of Star Colors of Coldest to Hottest!

Red- Orange - Yellow- Green - White and - Blue

This can also be cut out of bread with cookie cutters and the following  
jellies are used:

Cool Star: (red) strawberry jam

Average Star (orange) orange marmalade

Hot Star (blue/purple) grape jelly

## Space Unit:

### Facts And Concepts:

There are many faraway objects in space.

Some of these are moon, stars, and planets.

We live on a ball shaped planet called earth.

There is 8 other ball shaped planets.

We learn about space by looking through special instruments like a telescope and by sending special community helpers called astronauts to find out more about space.

Solar System: Made up of 9 planets move around the sun, along with their moons,

1. Space: big, dark and cold.

No air or water in space

2. Robots: are used to explore space.

3. Space Travel: Astronauts explore space in special vehicles called "Spaceships"

4. Planets: there are 9 planets: (Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto)

- The Sun is in space and is a huge ball of fiery gas.

### Astronauts:

Are Community Helpers

Are Explorers; so we will learn about the planets in our solar system in order to find out what is needed in order to someday live in outer space

JULY 20<sup>TH</sup> IS MOON DAY!

JULY 20, 1969 MAN LANDED ON THE MOON!

Spacecraft: Columbia

Astronauts: Neil Armstrong, Edwin Aldrin, and Michael Collins

Neil Armstrong said, " That's one small step for man, one giant step for mankind." All 3 walked on the moon, for about 2 hours, they planted the American flag, gathered moon rocks and took pictures.

\*There are no people, animals, plants, air or water on the moon like we know it here on earth.

## Nighttime:

**\*WE SLEEP AT NIGHT BECAUSE OUR BODIES NEED REST TO GROW AND BE HEALTHY!**

1. Talk about nighttime fears – if any of the children will talk.
2. (Chart) Bedtime routines and Daytime routines
2. Color sheets:
  - a. Daily Activity Worksheet
  - b. Big Birds' Time for bed
3. The Sheep Booklet pages

A. *Night-time Banner*  
Books:

The Bad Dream  
In the Dark  
The Bad Dream  
Good Night Little Grover  
Good Night Moon  
Bedtime for Francis  
Good Night Owl

---

## Day Time

1. Talk about daytime routines.  
School and Home routines
- Activities:
1. Color sheets (2)
  2. Worksheets:
    - a. Little Groundhog's Good Day
  3. Art: Do the day time side of the Banner

Books:

The Grouchy Ladybug

## The Solar System

### The Earth:

A yellow balloon, pictures of animals and a glass of water and a large rock

The earth is the only planet that has the right amount of sun, a source of water, and life.

Display a large rock. The earth is a ball of rock. It is solid and can be touched. Pound the floor! Jump on the floor

(Blue balloon with a picture of child taped on it) Have child walk around the sun (yellow balloon) with blue balloon and tell children this is how we have day and night. The sun does not move, the earth moves.

When the earth faces the sun it is daytime.

When the earth is away from the sun it is nighttime.

We have 1 moon

3<sup>rd</sup> planet from the sun

REALITVE SIZE OF SUN, EARTH, AND MOON

\* Beach Ball, (sun) marble, (earth) and pea (moon)

### Activities:

1. Day and Night worksheet (pg 26- Mailbox primary, 1988)
2. Send home disposable camera so parents can take 2 pictures  
Such as the child brushing teeth, and bedtime story

### TAKES 4 DAYS TO MAKE

Nighttime: use glow in dark crayons to draw stars and moon

Paint over it with thinned black paint

Daytime: Glow in dark crayons, color ~~sun~~ orange sun

Paint over it with thinned blue paint

## The Moon:

Dark, cold, no water, or air like we need to live

July 20<sup>th</sup> is Moon day

### Facts:

The spacecraft **Apollo 11** landed on the moon, July 20, 1969  
Neil Armstrong, Edwin Aldrin, and Michael Collins landed on the moon  
Walked on moon for 2 hours,  
Gathered rocks,  
Put the flag of United States there  
Took pictures

### Activities;

1. Moon Mud: equal parts of water and cornstarch. Add food coloring. Let the children feel the moon mud

2. Moon dough art;

Need:

2 cups flour,

1-cup salt,

2 TBS oil

4 tsp of cream of tartar,

2 cups water

Put mixture into a bowl and add 4 drops of blue food color

Cook in a saucepan until it forms a ball

Take to school. Let children make a ball and make craters with thumbprints. Let the dough harden.

3. Moon craters;

\*Firm foam paper plates

Glue on dried beans and other assorted things for textures

Cover with aluminum foil. (Press gently- to cover moon)

Purchase toothpick flags to put on moon

## The Sun:

### Materials:

Yellow balloon, yellow poster board or bulletin board paper, and Blue marker

### Facts:

\* The sun is a star!

-The sun is made up of gas

-Located at the center of our solar system

-Gives off light and heat

-The sun is bigger than any of the planets

-The sun looks yellow from the earth

-Never look directly at the sun, it will hurt your eyes (go blind)

### Lesson:

Draw a large circle. Say this is the sun

Draw a small blue dot on the sun, and say this is the earth

Have each child put a sticky star on the sun and say,

" The sun is bigger than \_\_\_\_\_ "

Have ideas already put on board for child to choose from:

Whale, a dinosaur, a planet, a house, a tree, a skyscraper,

A child, a school, and a fire truck. A car, and etc.

\*Have assistant write down the dictations.

Why do the sun look so big and the other stars in the sky look small?

The sun looks bigger because it is closer to us than all the other stars

Blow up a yellow balloon to 3 inches in diameter, stand across the room from the class. Then as you walk towards the children blow up the balloon bigger.

### Activities:

1. The sun color sheet in space booklet

2. The sun color sheet in Solar system color booklet

3. Finding out about stars worksheet (pg 27, primary Mailbox, 1988)

4. Sun paint blobs: each child has a sheet of construction paper And is given a blob of yellow paint. The child takes a Q-tip and draws out rays from the center to make a sun.

5. Make sun prints. Tape shapes onto dark construction paper And tape the papers onto the windows. Check the papers later and see the differences in the paper when the shapes are removed.

6. (?) Plants one in sun with water one in the closet forgotten.

**Gravity:**

**Materials:**

A rope

Various objects such as cotton balls, balloons, feathers, small rubber bands, colored construction paper

**What to do:**

Blow up balloons

Crunch up sheets of construction paper to make paper balls

**Lesson:**

**\*THE EARTH PULLS EVERYTHING TOWARDS IT. THIS PULL IS CALLED GRAVITY\***

1. Stand at one end of the rope, and have each child in turn, stand at one end and be pulled. Have each assistant help do this in turn
2. Pull on the rope, and let each child feel being pulled
3. Have the children throw various objects in the air (soft things)

**NOTE:** How fast or slow the object falls to the floor.

**NOTE:** How many times did gravity pull it down? ALWAYS!

**Expanding:**

A sock, a shoe. A heavy book, a pencil, a straw and a spoon

Say that gravity pulls harder on heavier objects

**Make predictions;**

**Which objects are heavier?**

Balance objects on the center of your finger;

Say that gravity pulls the hardest on the center of the object

**\*When astronauts are in space they have no gravity and must wear special suits.**

**Activity;**

**2. Make helmets**

Paper bags. Paint white if desired. Cut out a hole for face.

Decorate as desired

**3, Space Craft:** Trace scissors for a rocket ship on paper, add bottle caps, and draw circles for planets and the sun

## The Stars:

### #The Milky Way Galaxy

#### Materials:

White poster board or bulletin board paper, red, yellow, and blue felt pens, a Milky Way candy bar and tape

Using the felt pens draw numerous dots in a spiral shape.

The dots are stars.

Say this is the Milky Way Galaxy

#### Questions:

1. What is a star?

\*A STAR IS A BALL OF LIGHT

2. Have each child choose one of the colors and add more stars to the poster board.

3. Say that the stars are red, yellow, blue or white according to how hot they are (or how old they are)

4. While the children watch, draw 9 large dots within the spiral.

5. Have the children count the planets. Draw an arrow to point to the earth.

6. Draw a yellow dot larger than the planets, say that this is the sun?

The sun is a yellow star

7. Point to all the stars and say that all this is called the Milky Way Galaxy. (The sun, the 9 planets, and all the stars)

7. Cut the candy bar into small pieces and give everyone a taste'

8. Put the Milky Way Candy wrapper on the poster and display it while they learn about space

#### Activities:

1. Star gazer: toilet roll, paint it black, decorate with stars, use this at night to look at stars

2. Star worksheet from Space booklet

3. Use mixture of 1/3 glitter and 2/3 starches. Paint cut out stars from stiff paper

4. Cooking: bread and star cookie cutters, use jam for the stars color

## Stars Continued

\*Takes 2 days to make this activity

5. Teacher and students draw stars with white, blue, yellow, green, orange, and red oil crayons. Then paint over with black or midnight blue thinned paint
6. Make a star from 2 triangles
7. Color sheet / work sheet of star constellations
8. Use miniature marshmallows to glue on construction paper to make up our own constellations

## The Planets

### I. Mercury:

#### Facts:

1. the planet closest to the sun
2. Its gray surface is covered with craters
4. Its either very hot or very cold

#### Activity:

#### Materials:

Play dough and small rocks

1. Have each child flatten its play dough
  2. This is the surface of Mercury
  3. Have children put small stones into play dough
  5. What are left are lots of craters caused by "meteorites" or large rocks hitting its surface.
- 

### II. Venus:

#### Facts:

1. Venus is the 2<sup>nd</sup> planet from the sun
2. It has thick yellow clouds made of acid
3. The surface has lots of volcanoes, mountains, big rocks on the surface,

#### Materials needed:

Clear Bowl of water

Yellow food color/dye

Pans

Spoons

A flashlight

#### Lesson:

1. Put water in a clear bowl filled with water
  2. Add the food color
  3. Watch the color swirl like the clouds on Venus do
- VENUS HAS MANY THUNDERSTORMS WITH THUNDER AND LIGHTENING**
4. Give a child a pan and spoon let the children take turns Banging on the pan with spoon for thunder  
**FLASH THE FLASHLIGHT ON AND OFF FOR LIGHTENING**

### III. Mars:

#### Facts;

1. Mars is the 4<sup>th</sup> planet from the sun
2. ? Mars is covering with red rocks
3. There are huge volcanoes and lots of craters on the surface
4. There is no life on Mars

#### Mars continued:

#### Materials;

Butcher paper, paint, paintbrushes, and tape

Put the large paper on the wall or chalk board

#### Lesson;

1. Explain that the soil on Mars is red

Great dust storms cause the sky to look red

2. Paint a Mars mural
3. Everyone paint grass, flowers, trees and whatever they can draw, then paint the sky red

IF WE COULD CHANGE THE EARTH'S SKY—WHAT COLOR WOULD IT BE?

#### IV. Jupiter

##### Facts:

1. Jupiter is the 5<sup>th</sup> planet from the sun
2. It is the biggest planet in the solar system
3. Jupiter is orange, red, yellow, brown and white
4. Jupiter has a Great Red Spot
5. Jupiter is a ball of gas
6. Jupiter has 16 moons

##### Materials;

A bowl of water and food color

##### Lesson:

1. Put water in a clear bowl. Tell the children that this is the surface of Jupiter

2. Have everyone put their finger in the water

It is not solid like the earth, but a ball of gas

3. Drop different colors of food coloring into the water and watch the colors swirl

This is the atmosphere of Jupiter -- with different colored clouds

The Mysterious Red spot moves around the planet.

What could it be?

Take predictions:

1. a dust storm
2. A volcanic eruption

## V Saturn

### Facts:

1. Saturn is the 6<sup>th</sup> planet from the sun
2. It is a giant planet
3. Saturn has beautiful rings
4. Saturn is gold, white, red, yellow and green

### Materials:

A picture of Saturn  
Crushed ice from cafeteria  
Small and large rocks  
A pan  
Paper bags

### Lesson:

1. Show a picture of Saturn and explain that Saturn has rings.
  2. Tell them that the rings are made up of ice and rocks
  3. Give each child a pan with ice and small stones in it
  4. Let the children feel the rings around Saturn
- 

## VI. Uranus

### Facts:

1. Uranus is the 7<sup>th</sup> planet from the sun
2. The clouds that circle the planet are greenish blue
3. Uranus has 11 thin rings
4. Uranus is super cold
5. Uranus is a ball of gas with a rocky center or core

### Activity:

1. cut out a circle of waxed paper and paint or color 11 rings around the planet.

## VII Neptune

### Facts:

1. Neptune is the 8<sup>th</sup> planet from the sun
2. Neptune is surrounded by blue clouds and dark rings
3. Neptune is a ball of gas with a metal center or core
4. Neptune has 8 moon
5. Neptune is SUPER COLD (353DEGREES BELOW 0)

### Activity:

Draw Neptune on paper and then add blue clouds and 8 moons

---

## VIII Pluto

### Facts:

1. Pluto is the smallest planet in the solar system; now a "dwarf" planet
2. It is usually the farthest from the sun
3. Pluto is ALWAYS COLD (-365)
4. Pluto has 1 moon
5. Pluto is a ball of frozen gas

### Materials:

A pan of water

Freeze the pan of water

### Lesson:

1. Explain that Pluto is the smallest planet
  - It is SO SMALL, some people are not sure that it is a planet
2. Show the pan of frozen water.
3. Have them feel the ice
  - This is what Pluto feels like
  - It is so far from the sun – it is an icy ball