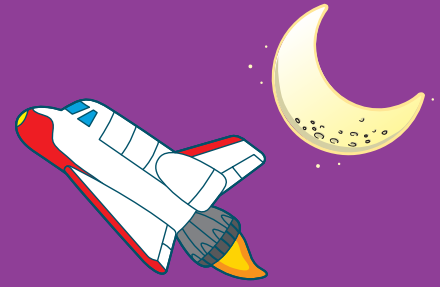


SPACE THEME BOX



Designed to meet these objectives:

- Students will listen attentively and respond to instructions.
- Students will use oral language to describe objects and experiences.
- Students will learn new words and expand vocabulary.
- Students will work as a group to compose letters.
- Students will understand ordinal numbers.
- Students will count concrete objects.
- Students will arrange objects in sequence by size.
- Students will count backwards from ten.
- Students will understand that the Earth turns on its axis and revolves around the Sun.
- Students will learn about the solar system and space.
- Students will develop gross and fine motor skills.

Your new Space Theme Box has everything you need for comprehensive, hands-on lessons that span the curriculum. We've included a wide variety of props and manipulatives that help children discover the solar system and outer space. Inside this guide, you'll find ideas for dozens of involving, themed activities covering 10 cross-curricular learning areas—from math to dramatic play. We've even included a list of terrific children's books to build up your classroom library. The Space Theme Box is a perfect way to capture children's attention and boost essential skills!

What's Included

- Set of 10 photo cards
- Flashlight
- Wooden puzzle
- Bag of space sand
- Earth ball
- Moon ball
- 8 constellation cards
- Wooden display stand
- Space shuttle
- 2 miniature astronauts
- Miniature American flag
- Storage tub





Language

- Use the photo cards to take children on a journey through outer space. Hold up different cards as you discuss their subject matter. Afterwards, review the cards one by one and have children repeat the vocabulary words they learned.
- Help children assemble the puzzle. Then, discuss the completed puzzle. Help children identify the planets and use ordinal number words to name their positions in the solar system: Mercury is first; Venus is second; Earth is third; and so on. Which planet is the closest to the Sun? Which planet is farthest away? Where is the planet that we live on?
- Pass the space shuttle from student to student. As each child holds the shuttle, have her name one thing she would take on a trip to the Moon. Be sure to have children explain their thinking.
- Work as a class to compose a letter to a current or former astronaut. Help children think of questions they might ask, such as, “What is it like to travel in a spacecraft?” or “What kind of training and education does it take to become an astronaut?” What else would children like to know?
- Help children think of words that rhyme with “moon,” “sun,” and “star.” Write their suggestions on the board. Then, use the words to create a class poem. Encourage children to draw pictures to illustrate the poem. Display the poem on a bulletin board and surround it with children’s artwork.



Art

- Provide black construction paper and foil star stickers. Encourage children to create their own constellations. Have them think of names for their constellations. Use a white crayon or gel pen to write the name of the constellation on the black background.
- Re-create the solar system and outer space in your classroom! Use star-shaped cookie cutters to cut stars from lightweight, air-dry clay. Be sure to poke a hole in each star. Paint when dry and hang from the ceiling with silver ribbons. To make planets, cover inflated balloons with strips of papier-mâché. Allow to dry, and then paint with realistic colors. Suspend the planets by tying ribbon or string to the balloons’ necks.
- Help children make miniature star viewers. Tape a small circle of black construction paper over one end of a paper towel tube. Encourage children to use paints or collage materials to decorate their tubes. Then, help them use toothpicks to poke a constellation of holes in the black paper. Prompt children to point their star viewers toward a window or a light and look through the open ends.
- Use a shipping carton from a refrigerator or other large appliance to make a spacecraft for your classroom. Paint details such as rocket thrusters and portholes.



Sand & Water

- Encourage children to set up a moon landing scene in the sand table, using the miniature astronaut figures and flag.
- Pour the space sand into a tub and add small rocks or pebbles. Give students small shovels and containers. Suggest that they pretend to be astronauts gathering samples from a planet’s surface.



Science

- Have one child hold the Earth ball while another child shines the flashlight at it to represent the Sun. Point to the continent you live on, and then turn the Earth ball slowly on its axis to show how night and day occur.
- Discuss the constellation cards. How do children think the constellations got their names? Explain that people thought they saw shapes and figures in the stars. For example, many people think the Big Dipper looks like a giant ladle. (“Dipper” is another word for “ladle.”) This same constellation has also been called the Drinking Gourd. Encourage children to think of other possible names for each constellation.
- Place the space sand in a tub of water. What happens? How does it feel when you take it out again? Do the same thing with regular sand. How are the two types of sand similar? How are they different?
- Have children hold their breath for a short time. How does it feel? Explain that people need to breathe air to live. There is no air in space, so astronauts who go outside of their spaceships must wear special helmets that provide air for them to breathe. Discuss other equipment that allows astronauts to survive in space. How do astronauts talk with each other? What protects them from the extremes of heat and cold?
- Discuss gravity and weightlessness. Point out that in space, gravity has almost no effect, so astronauts float about like bubbles inside their spacecraft. What difficulties does this cause? How can you eat or drink if your food floats away from your spoon? How can you sleep if you drift away from your bed?



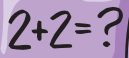
Music

- Sing “Mister Sun.” Then, explain that the Sun is actually a star, like billions of others in space. Sing the song again, substituting “Star” for “Sun.”
- Sing these lyrics to the tune of “My Darling Clementine”:
*Name the planets, name the planets, orbiting around the Sun.
Tiny Mercury, shiny Venus, and the Earth (my favorite one).
Next is red Mars, giant Jupiter, Saturn with its rings so bright,
Distant Neptune, and Uranus—shining planets in the night!*



Active Play

- Prompt children to pretend to be planets rotating around the Sun. Remind them that planets never crash into each other!
- Walk, dance, and jump on the Moon. Remember that you don’t weigh very much on the Moon, so be sure to take giant, light steps.
- Stand in a circle around a large ball representing the Sun. Toss the Earth ball from child to child around the circle to show how it orbits around the Sun. Then, replace the Sun ball with the Earth ball, and pass the Moon ball around the circle instead.
- Blast off for a space race! Have players line up one behind the other. Give a ball to the first astronaut in line. Then, have everyone count down from ten. When you get to zero, shout, “Blast off!” Then, the first astronaut in line passes the ball over her head to the second astronaut, who passes it between his legs to the third astronaut. Continue passing the ball, alternating between overhead and between the legs. When the last astronaut in the line gets the ball, she runs to the front of the line and the countdown begins again.

 $2+2=?$

Math

- Place a constellation card in the wooden stand and shine the flashlight through it onto black paper. Dim the classroom lights and prompt children to count the stars in the constellation.
- Pass the space shuttle around as you count down for the launch: “10, 9, 8, 7...” Whoever is holding the shuttle when you get to “Blast off!” can choose the beginning number for the next countdown.
- Cut out planets or stars of different sizes. Sequence them from smallest to largest and then from largest to smallest.
- Have children make their own counting books. To make each book, align three sheets of paper and fold them in half. Unfold the papers and staple them together along the fold line to make a book with ten inside pages, plus front and back covers. Starting on the inside front cover, help children number the pages from one to ten. Then, have them put one star sticker on page 1, two star stickers on page 2, and so on. Finally, prompt children to decorate the covers of their books and add titles such as “Jack’s Star Counting Book.”



Dramatic Play

- Set up a scene using the astronaut figures, flag, and space shuttle. What are the astronauts doing?
 - Travel to a previously undiscovered planet in your space shuttle. What do you find when you get there? How is this planet different from Earth?
- Build a space station for the astronauts in your block play area.
- Provide props such as backpacks, dust masks, goggles, and helmets. Encourage children to pretend they are astronauts traveling in a spaceship.



Cooking

- Bring in freeze-dried snacks and tiny, bite-sized cookies and crackers like the ones real astronauts eat in outer space.
 - Use toothpicks or pretzel sticks to connect chunks of cheese to form satellites. Add raisins and other decorations.
- Snack on edible planets! Mix 2 cups of peanut butter or cream cheese with 1 cup instant dry milk, 1 cup honey, 1 cup sunflower seeds, and 1 cup raisins. Help children pat the mixture into small balls. Then, roll these “planets” in coconut, powdered cocoa, sprinkles, or graham cracker crumbs to decorate their surfaces. Eat and enjoy—no cooking needed! (Refrigerate any leftovers.)
- Make astronaut pudding: For each child, measure one tablespoon of instant pudding and 1/4 cup cold milk into a zip-close bag. Seal the bags and have children squish the bags to mix the pudding. Then, cut off the tip of one corner and suck out the pudding just like the astronauts do!



Library

- *Curious George Gets a Medal*
by H. A. Rey
- *The Cut-Ups*
by James Marshall
- *Galaxies*
by Seymour Simon
- *Goodnight Moon*
by Margaret Wise Brown
- *I Know About Planets*
by Chris Jaeggi
- *If You Were an Astronaut*
by Dinah L. Moche
- *The Magic School Bus Lost in the Solar System*
by Joanna Cole
- *The Moon*
by Seymour Simon
- *The Planets in Our Solar System*
by Franklyn M. Branley
- *Postcards from Pluto: A Tour of the Solar System*
by Loreen Leedy
- *Space, Stars, Planets and Spacecraft*
by Sue Becklake
- *What Next, Baby Bear?*
by Jill Murphy