

Name: Ellen Kaatz
School: Glendale Adventist Elementary
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Title: Journey to the Solar System (Lesson Plan)
Subject: Science
Grade level: 3rd
Duration: 3-4 weeks

Description and Goals:

In this unit students will discover key characteristics of the sun and planets and their position in the solar system. They will also have the opportunity to learn about astronauts and some of the “vehicles” used for space travel. The students will use the internet to gather their information.

Faith Integration:

Discussion will take place in these areas:

God as creator: Genesis 1:14-19

The day the sun stood still. Joshua 10:12-15

The heavens declare the glory of God. Psalms 19:1

No need for sun in heaven. Revelation 21:23-25

Curriculum Benchmarks:

#2 Students practice responsible use of technology systems, information, and software.

#3 Students use technology tools to enhance learning, increase productivity, and promote creativity.

#5 Students use technology to locate, evaluate, and collect information from a variety of sources.

Materials/Hardware/Software

Class computers

Digital camera (teacher use)

Internet

KidPix Deluxe 3

VCR

Videos:

Planets: Eyewitness

Official NASA/Kennedy Space Center Souvenir Video

The Big Space Shuttle

Books:

Baird, Anne. Book of Astronauts. New York: Morrow Junior Books, 1996

Banke, James. Kennedy Space Center. Florida: Central Florida Press, 1997

Cooney, Timothy. Scott Foresman Science. Illinois: Scott Foresman, 2003

Moche, Dinah L. Astronomy Today. New York: Random House, 1982

Moore, Jo Ellen. Our Solar System. California: Evan Moore Educational Publishers, 1995

Murden, James. Visual Factfinder Stars and Planets. New York: Scholastic Inc., 1993

Phou, Laura. Solar System. California: Frank Schaeffer Publications, Inc., 1988.

Spizzirri, Linda. An Educational Coloring Book of Space Craft. South Dakota: Spizzirri Publishing Co., 1981

Robinson, Lisa. Kennedy Space Center. Washington: Smith-Western Co.,

Posters of the Solar System

10 Index cards (9 planets and sun) for each student

Ziploc Baggies

Paper plates

Google eyes

Paper Towel Tube (students need to bring one)

Teacher Preparation:

Set up "Space" Bulletin Board

Tell students to bring paper towel tube to school

Tell students to get a shoebox or Kleenex box for their homework project

Xerox worksheets

Bookmark the following sites:

<http://www.enchantedlearning.com>

http://www.abcteach.com/directory/theme_units/science/solar_system/

<http://kids.msfc.nasa.gov/>

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

Purchase astronaut dried ice cream

Take pictures of students' faces

Student Preparation:

Students need to know how to access the internet

Students need to know how to use KidPix Deluxe 3

Procedure/Activities:

- ? We will do a KWL chart and introduce the space unit by watching the video about the planets and the sun. Students will color an astronaut page, and put their picture in the mask part. And we'll put the astronauts on the bulletin board with a Ziploc baggie taped onto the astronaut's hand. Then each day we'll research one planet and the children will put information on their index card and illustrate it on the other side of the card. The students will also learn about the sun, its heat and light and how that affects us. This too will be put on an index card and illustrated. We'll put the cards in the Ziploc baggies on the board.
- ? Students will also get in groups of two or three and work on the worksheets which go along with the lesson.
- ? Students will be told about their homework of making a diorama of the planets and the sun. They may include comets, asteroids, meteors, astronauts, etc. in the diorama. They will be given the rubric and told what materials they may use and what required items must be in their diorama. Students will have 2 weeks to complete the diorama.
- ? Then we'll watch the two videos on shuttles and astronauts. Discussion will include the special and appropriate clothing, food, activities, and work of the astronaut. Discussion will even include rocket landings and parachuting into the ocean versus shuttle landings! Students will then do the rocket craft (from enchanted learning.)
- ? Students will again work in groups of two or three and make a "Space Picture" using KidPix Deluxe 3.
- ? They will also use the various sites to gather more information on the planets, sun, asteroids, meteors, comets, and shuttles or "play" interactive space games.
- ? We will look at our KWL chart and make sure we have answered the questions of what the students would like to learn.
- ? Students will present their dioramas in class and answer questions about it.

Assessments and Evaluations:

Worksheets will be graded and the Rubric for the diorama is attached.

Follow-Up Activities:

- ? Students will write a story “If I Were an Astronaut...”
- ? Students will “Invent a Planet.” They will name the planet, tell what grows there, what lives there, and what is so special about it.
- ? Students will draw and color a space scene and color the stars white. Then they will go over the picture with black watercolor paint and the stars will “pop” out.
- ? Students may color the space coloring book they were given.

Solar System KWL

Fill in the spaces with information you know, want to know and learn throughout your study of the solar system.

What I know	What I want to know	What I have learned

©[abcteach](http://www.abcteach.com)

Astronaut Booklet Cover

Astronaut Booklet Cover: Color the picture and cut out. Trace and make as many pages as you need to make a booklet or report. Have fun!

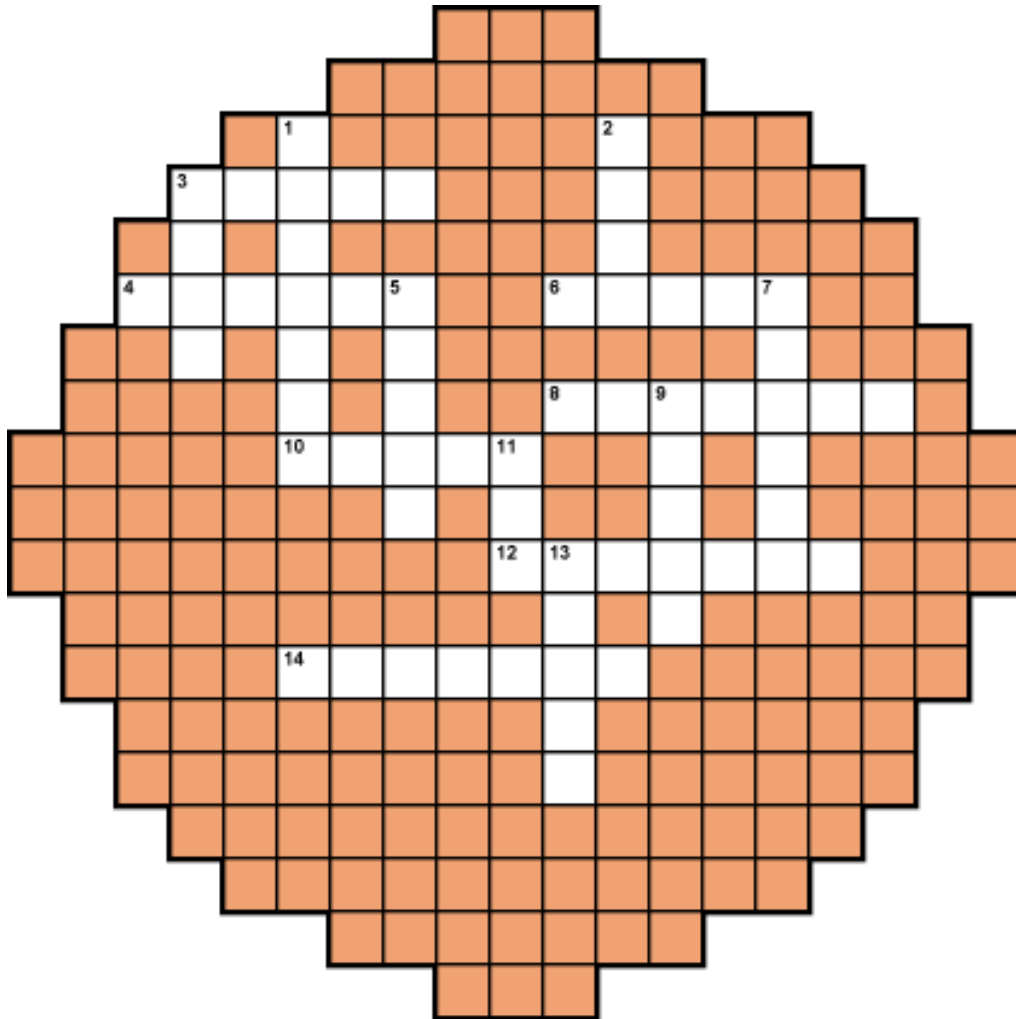




Unscramble the words below that have to do with space or the solar system.

1. samr _____
2. usrnat _____
3. cotme _____
4. osautrnat _____
5. mcuryre _____
6. ikylm awy _____
7. orctke _____
8. etlapn _____
9. akbcl ohle _____
10. onom _____
11. yagxla _____
12. aoenmrostr _____

Solar System



Across

- 3 _____ Way (5)
- 4 7th planet from the sun (6)
- 6 Nearest planet to Earth (5)
- 8 Largest planet (7)
- 10 Look at all the _____ in the sky!
(5)
- 12 8th planet from the sun (7)
- 14 Planet closest to the sun (7)

Down

- 1 There are nine in our solar system (7)
- 2 Black _____ (4)
- 3 The red planet (4)
- 5 _____ System (5)
- 7 This planet is known for its rings (6)
- 9 Farthest planet from the sun (5)
- 11 This star heats the Earth (3)
- 13 The planet we live on. (5)

Sun Paper Plate Craft

[More Kinder Crafts](#)

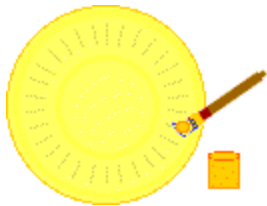
This is a simple craft made from a paper plate and a child's handprint cutouts.



[More paper plate crafts](#)

Supplies needed:

- ? A paper plate
- ? Yellow construction paper
- ? Scissors
- ? Glue (or a stapler)
- ? Crayons, paint or markers
- ? Googly eyes (optional)



Paint the back side of a paper plate yellow.



Trace a child's hand on yellow construction paper about 7 times.



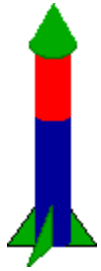
Cut out the tracings.



Glue or staple the handprint tracings to the paper plate - the fingers are the sun's rays.



Color in the sun, drawing a mouth and a nose.
Either draw the eyes or glue on googly eyes.



[More astronomy crafts](#)

EnchantedLearning.com

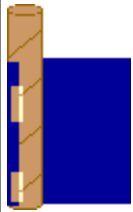
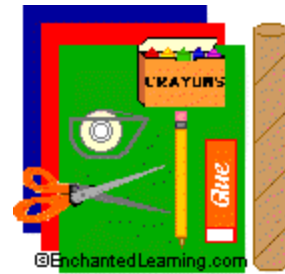
Rocket Craft

[More Kids Crafts](#)

This craft makes a rocket ship from a paper towel tube and construction paper.

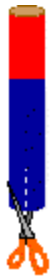
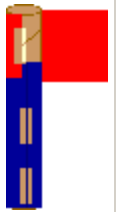
Supplies needed:

- ? A paper towel tube
- ? Construction paper
- ? Pencil, markers or crayons
- ? Tape
- ? Glue
- ? Ruler
- ? Scissors
- ? Markers, crayons or stickers (optional)

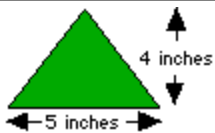
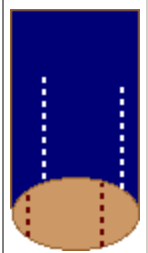


Wrap construction paper around the tube. Tape or glue the construction paper in place.

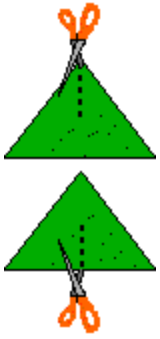
If a single piece of construction paper isn't big enough, use another piece of construction paper to finish covering the tube.



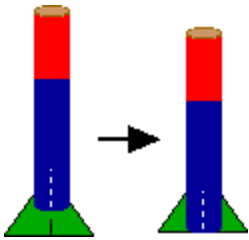
Cut 4 slits on one end of the tube. Each slit should be about 2 1/2 inches long, and each pair should be located opposite another. (They should divide the tube into 4 equal sections.)



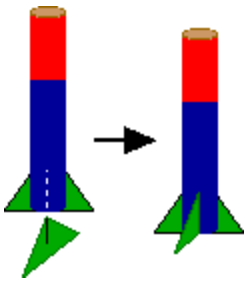
Using construction paper, cut out two triangles that are about 5 inches long and 4 inches tall.



Cut a slit in each of the two triangles. Each slit should go halfway through the triangle; one goes through the top of a triangle, the other goes through the bottom of the triangle.



Using the triangle with the slit in the bottom, slip the triangle onto the rocket's body in two of the slits.

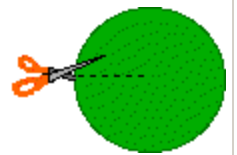


Using the triangle with the slit in the top, slip the triangle onto the rocket's body (in the other two slits). In addition to going onto the rocket, this triangle should also slip into the other triangle. You may have to jiggle the paper a bit to line the slits up.

This forms a steady base for your rocket.



Using construction paper, cut a circle about 4 inches in diameter. Cut a slit from the outer edge to the center.



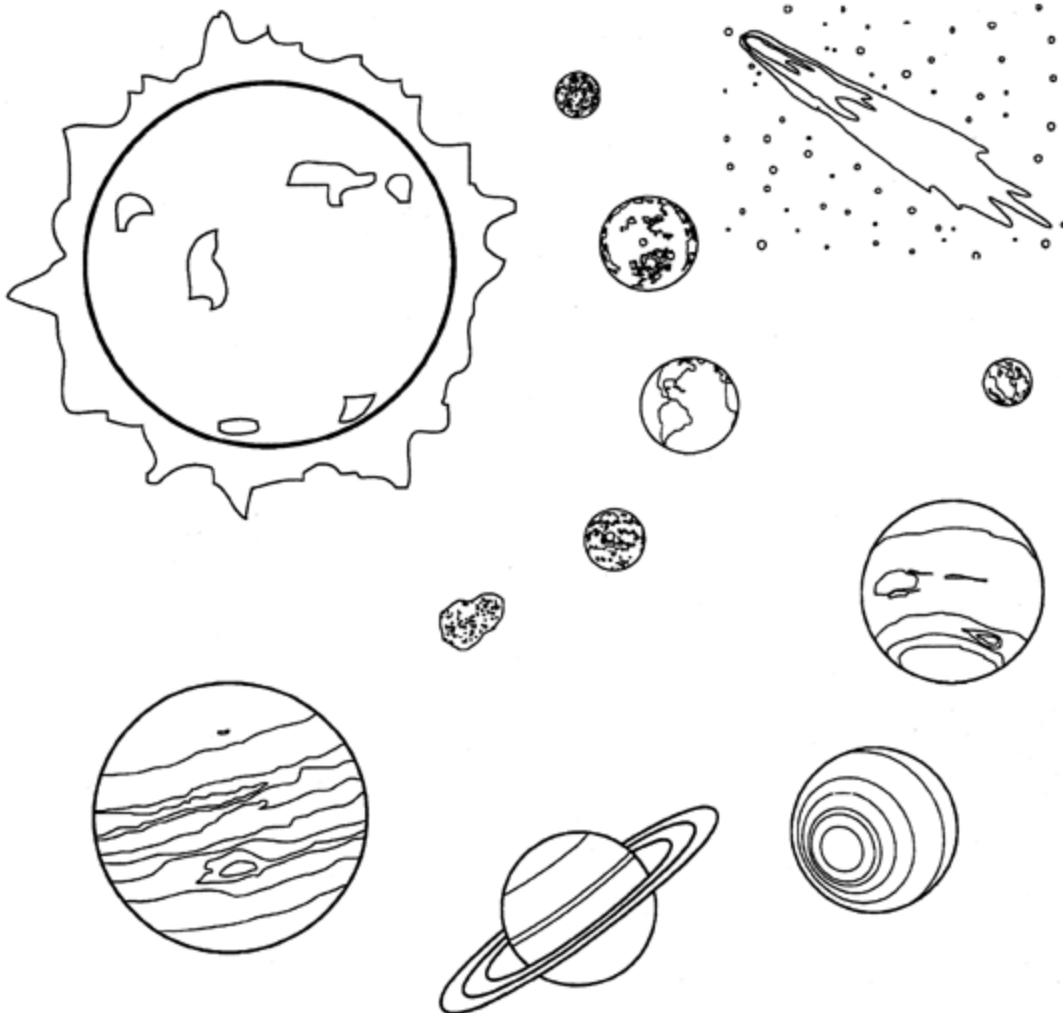
Turn the circle into a cone, and secure it with glue or tape.



Tape the cone to the top of the rocket.

Decorate the rocket with stickers, markers or crayons. You now have a great rocket ship to play with.

A Solar System Coloring Book



Courtesy of the Windows to the Universe Project at the University Corporation for Atmospheric Research

<http://www.windows.ucar.edu>

[\[next page\]](#)

(There are 13 pages in this coloring book.)

Building a Solar System Diorama

Teacher Name: **Mrs. Kaatz**

Student Name: _____

CATEGORY	4	3	2	1
Required Elements	The diorama includes all required elements as well as additional information.	All required elements are included in the diorama.	All but 1 of the required elements are included in the diorama.	Several required elements were missing.
Graphics - Originality	Several of the items used in the diorama reflect an exceptional degree of student creativity in their creation and/or display.	One or two of the items used in the diorama reflect student creativity in their creation and/or display.	The items are made by the student, but are based on the designs or ideas of others.	No items made by the student are included.
Content - Accuracy	At least 7 accurate facts are displayed in the diorama.	5-6 accurate facts are displayed in the diorama.	3-4 accurate facts are displayed in the diorama.	Less than 3 accurate facts are displayed in the diorama.
Attractiveness	The diorama is exceptionally attractive in terms of design, layout, and neatness.	The diorama is attractive in terms of design, layout and neatness.	The diorama is acceptably attractive though it may be a bit messy.	The diorama is distractingly messy or very poorly designed. It is not attractive.
Knowledge Gained	Student can accurately answer all questions related to facts in the diorama.	Student can accurately answer most questions related to facts in the diorama	Student can accurately answer about 75% of questions related to facts in the diorama.	Student appears to have insufficient knowledge about the facts in the diorama.

Date Created: **Feb 17, 2005 12:25 am (CST)**