



## Illustration of Planets and Stars

By Ron Russell

1938-

### Materials Needed:

Blue or Black construction paper one per student

White construction paper 1-2 per student

Various colors of paint (tempera, acrylic, glitter)

Assortment of various media: Pastels, watercolor, colored pencils, markers, watercolor paints, magazines for collage etc. and any material needed to apply them.

scissors

glue

Print: Illustration of Planets & Stars by Ron Russell (available at [www.art.com](http://www.art.com))

Picture of Artist Ron Russell available online at [www.cosmicstock.com](http://www.cosmicstock.com)

**Anticipatory Set:** How many of you have ever gone stargazing? Have you looked at any planets through a telescope? How many of you have ever dreamed of traveling in space? Our picture

today was painted by an Artist named Ron Russell who had some profound dreams about space which lead him to paint many pictures of Space, Planets and comets.

### Artist Biography:

Show the students the picture of Ron Russell and tell them briefly a little about his life using the following information.

Ron Russell was born in 1938 into a family of artists. He studied medicine and philosophy in college. He was the theater designer for San Francisco Actor's Workshop. He began his work as an artist painting on canvas in 1963. In 1972 he had some profound dreams which led him to his first pictures of space. He worked with Dave Archer and they made the first **electric paintings** using a giant **Tesla coil** at the de Young Museum. Ron Russell has done extensive research on **crop circles** (unexplained patterns found in large fields.)

### Print:

Look at this picture painted by Ron Russell. What is this a picture of? What objects in this picture can you identify? (planets, stars, etc.) What colors did the artist use? Do you think these objects are the same color in real life? Take a close look at the background. How do you think the artist painted this? He used a method called **Electric Painting**. The artist put a special water paint that conducts electricity on glass. Working with a hand held wand the artist would direct millions of volts of "high frequency" electricity into the paint. The artist would freely move the wand around anywhere between an inch up to 9 feet away from the painting. This is how the artist achieved the cloudy portions of the picture he titled "art storms." The first time they did this experiment produced shouts of, "It's Alive, It's Alive!" *(It is extremely important you remind students this is extremely dangerous and to never try this they could die!)* The planets, comets and all other forms are painted by hand using dozens of both common and inventive art techniques. What colors did he use for his electric painting? Does this painting look flat or does it look like you could walk into it? Do you like this painting?

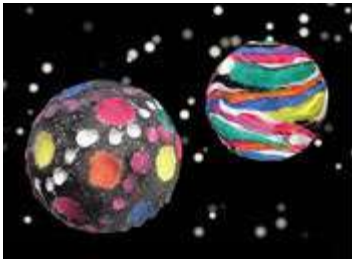
### Project:

Have the students pick either a dark blue, or black piece of paper for the background. Have them fold it in half and then open it up. Have the students add some spots of various colors of paint in different spots. Using a popsicle stick swirl the paint around (don't swirl too much.) Next have the students fold the paper in half on the line they have already established and gently slide the top sheet a little. Open the paper and set to the side to dry. Provide the students with a white sheet of paper and have them use various types of media to create meteors, planets, stars etc. Cut them out glue and them to their painted back ground paper.

Create a title for their masterpiece. Encourage them to use their knowledge gained through their unit on the solar system to make unique and appropriate titles.

## Sand Dazzle Planets - #26

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**Age Range:** Elementary  
**Time:** 1 Class Period  
**Difficulty:** Easy  
**Cleanup:** Soap & Water

### Directions

**Step 1:** Fill Plastic Painting Bowls with Sand Dazzle, saving a bowl for Tacky Glue.

**Step 2:** Use a paint brush to paint a foam ball with glue in desired pattern.  
>>[view picture](#)

**Step 3:** Dip glue-coated foam ball into chosen color of Sand Dazzle sand.  
>>[view picture](#)

**Step 4:** Continue to add layers of glue and sand until entire ball is covered in multiple colors of glitter sand.

**Step 5:** Allow "Planets" to dry. Try hanging them from your ceiling for a fun display!

### General Materials

- Paint Brush

### Project Materials

#### On this Page...

- Directions
- Optional Tips
- General Materials
  - Project Materials



**Printable version of this project!**

..... (need help?)

### Project Index

View our **entire list** of fun and

Or enter a Project Number:



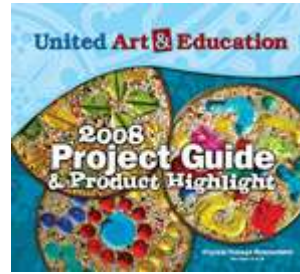
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  - Scratch Art
  - Seasonal & Holiday
  - Weaving

### Project Guide

Aleene's "Tacky" Glue 4 fl. oz.	<input type="checkbox"/>	Plastic Painting Bowls	<input type="checkbox"/>
<b>Item:</b> ACT-4461	<b>\$7.89</b>	<b>Item:</b> CFC-BA4S	<b>\$3.29</b>
Sand Dazzle Glitter Sand Assortment 3.5 oz. bags, 8 colors	<input type="checkbox"/>	Styrofoam Balls 4", 2 count	<input type="checkbox"/>



### 2008 Project Guide

Print out your own copy of our 24-page project guide. It features more than 12 new project ideas! [Click here...](#)

.....(need help?)

### Assessment:

Teacher will walk around the room monitoring while students are working.

### Closure:

Each student will show their finished artwork to the class and tell them the title and why they chose that title.

### Follow up Activity:

Go to [www.riegerfineart.com](http://www.riegerfineart.com) and watch the slide show of art produced by Ron Russell's fellow artist, Dave Archer, with whom he developed electric art.

### Website for below

[http://images.google.com/imgres?imgurl=http://www.princetonol.com/groups/iad/lessons/elem/images/jeryl-leaf.jpg&imgrefurl=http://www.princetonol.com/groups/iad/lessons/elem/jeryl-leaf.htm&h=278&w=283&sz=13&hl=en&start=9&um=1&tbnid=fI4SJgz\\_YggBXM:&tbnh=112&tbnw=114&prev=/images%3Fq%3Delementary%2Bclay%2Bprojects%26gbv%3D2%26um%3D1%26hl%3Den%26sa%3DN](http://images.google.com/imgres?imgurl=http://www.princetonol.com/groups/iad/lessons/elem/images/jeryl-leaf.jpg&imgrefurl=http://www.princetonol.com/groups/iad/lessons/elem/jeryl-leaf.htm&h=278&w=283&sz=13&hl=en&start=9&um=1&tbnid=fI4SJgz_YggBXM:&tbnh=112&tbnw=114&prev=/images%3Fq%3Delementary%2Bclay%2Bprojects%26gbv%3D2%26um%3D1%26hl%3Den%26sa%3DN)

## Solar System Thematic Unit

### Monica Shumway

### Art Lesson

**Grade Level:** 4-5th Grade

### Background, Context, and Purpose

This unit is designed for fourth or fifth grade students to become more familiar with the solar system. This lesson focuses on expanding the scale used in the previous math lesson to make their own scaled model in the school. To do this, the students will have to apply what was learned the previous day about scales to complete this lesson. This lesson will require four or five fifty minute class periods to complete.

### Standards:

**Science:** 6SC-E2 Describe common objects in the solar system and explain their relationships.

PO 1 Describe common objects in the solar system.

PO 2 Explain how objects in the solar system are related.

**Art:** 3AV-E7 Describe ways in which the principles and subject matter of other disciplines in the curriculum are interrelated with visual arts.

PO 1 Identify the curriculum concepts from other disciplines that are used in the visual arts.

1AV-E4 Continue to expand knowledge and use of different arts media, acquiring several new techniques.

PO 1 Know how to use different arts media and techniques.

PO 2 Demonstrate the use of different arts media and techniques.

**Math:** 1M-E3 Demonstrate proficiency with operations of multiplication and division of whole numbers.

PO 2 Calculate multiplication and division problems within contextual situations.

4M-E3 Perform elementary transformations.

PO 3 Draw or build a shape that has symmetry.

4M-E3 Present and solve problems relative to size, shape, area and volume by using geometric models.

PO 1 Solve Problems using given formulas for simple area and perimeter.

### **Lesson Objectives:**

Students will be able to calculate the diameter and distance of their planet according to the given scale.

Students will be able to accurately display size, features and properties of the planet in the model.

Students will work in groups and cooperate with one another as a team.

**Materials Needed:** balloons, newspapers, glue mixture, glue, construction paper, odds and ends assortment of materials and candies for decorating the geographical features of the planet

### **A. The Lesson**

Introduction ~Begin by reviewing the concept of the scaled model the students used in the previous math lesson to describe the immense size of the solar system. Tell the students that over the next few days they will be having fun creating their own scaled down version of the solar system indoors. This will be done through an art project by creating a paper mache model of their planet. First however, as a class they need to create a scale for their solar system.

### **Methods ~Introduction**

~Have students divide up into their planet groups. (Have larger groups for the larger planets, such as Jupiter, Saturn and Neptune, since these will require the most amount of work due to their large size in comparison to others. Have students who have Pluto and other small planets pitch in to help create the sun. This should have a different scale so that it is still comparable to other planets but not too large.)

~Have students talk about the size of the scale that was used in the previous lesson. Guide the students to come to the conclusion that obviously this scale is too large and cannot be replicated in the school.

~Put the different diameters of the planets into a chart on the board. Have the students copy this into their notes. Tell the students that the scale they will be using will be  $1000\text{km}=1\text{ cm}$ . This scale should accurately show the size difference between the planets. Have the students calculate the diameter of their own planet. Check work.

~Introduce the project that you will be using for the model. Tell the students that they will be creating a paper mache model of their planet. This model will then be colored and decorated as accurately as possible to display the geographical features of their planets. Remind students that you will be using a rubric to grade their projects. (Make it worth however many points you choose, but I recommend 150 points. This is a very large project and will take time, effort, team work and peer cooperation. Grade should reflect these points plus creativity, accuracy and neatness.)

~Now that the students have calculated the diameter of their planets, have them think of different ways they could measure the correct size of their scaled planet.

Get students to think that a string would be the most likely choice to measure the accurate diameter. For the students with larger planets, they will likely have to use more than one balloon to create their large size. Give directions and guidance to the students who need it. Review with the students the steps to making a paper mache model.

~Allow students several class periods to work on their models. Help where necessary to guide the features, coloring and appropriate size of the planet.

**Closure** ~Once the students have finished their model, have them write a paragraph describing the process that they used to create their planet. In this paragraph have the students include the scale, the steps for the paper mache and the most interesting thing they learned about their planet in the process.

### **B. Assessments Used**

Students will correctly calculate the diameter and distance of their planet according to the given scale.

Students will accurately display size, features, and properties of the model.

Students will write a paragraph and describe the process used in making the model.

### **C. Extensions**

Have students calculate all other diameters and distances for other planets.

Have students help measure, hang and write description for solar system model.

### **D. Resources:**

Revised from a lesson by Lucy Rider and Misty Brenden

Dakota State University

Source: <http://www.students.dsu.edu/riderl/classes/Science/OurSolarSystem.htm>

### **Websites for Kids**

Star Child A Learning Center for Young  
Astronomers  
Astronomy for kids  
Explore the Planets

Our Solar System

Windows to the Universe  
The Solar System in Pictures  
Astronomy and Space for Kids

<http://starchild.gsfc.nasa.gov/docs/starchild/starchild.html>  
<http://dustbunny.com/afk>  
<http://www.cbc4kids.cbc.ca/general/the-lab/space/explore.html>  
[http://www.alcddb.on.ca/-jjon/educate\\_you/space/solar/indrex.html](http://www.alcddb.on.ca/-jjon/educate_you/space/solar/indrex.html) (the-right before jjon should be squiggly)  
[www.windows.umich.edu/](http://www.windows.umich.edu/)  
[www.the-solar-system.net/](http://www.the-solar-system.net/)  
[www.kidsastronomy.com](http://www.kidsastronomy.com)



