Science in a Bag – Student Page

Our Solar System

3rd Grade

Standards

GLE 0307.6.1 Identify and compare the major components of the solar system.

0307.6.1 Create a model of the solar system depicting the major components and their relative positions and sizes.

SPI 0307.6.1 Identify the major components of the solar system, i.e., sun, planets and moons.

Task Objective

Students will be able to identify and label each planet of our solar system and be able to place them in order from closest to the Sun.

Materials Needed

Scrapbook paper for “star mat”, card stock for the planets, Velcro, permanent marker, glue, and typed out labels.

Procedures

1.) Roll out the Star Mat on your desk. Make sure that the mat is placed so that the corner that says “top” is in the top left hand corner.

2.) In the bag are the planets and labels. Place the planets in one stack and the labels in another. Make sure to keep the labels and planets face up!

3.) Start with the sun and place the planets in order from the closest to the sun.

4.) Once the planets are in order, place the labels on the matching planets.

5.) Check your work by turning the labels over and making sure that the number on the back is the same number as the one on the back of the planets.

6.) Answer the following questions in your Learning Log.

Assessment

1.) What planet is the farthest from the Sun?

2.) Which planet has rings?

3.) Which planet is closest to the Sun?

4.) What is the third planet from the Sun?

5.) What star do the planets of our solar system orbit around?

Clean-up

1.) Place labels back into the plastic bag.

2.) Remove the planets from the Star Mat and place them into the plastic bag.

3.) Roll the Star Mat up and place it in the box. Place the plastic bag into the box as well.

4.) Place the box back on the shelf.

Science in a Bag – Teacher Page

Title of Activity

Grade Level

3rd

Standards

GLE 0307.6.1 Identify and compare the major components of the solar system.

0307.6.1 Create a model of the solar system depicting the major components and their relative positions and sizes.

SPI 0307.6.1 Identify the major components of the solar system, i.e., sun, planets and moons.

Task Objective

Students will be able to identify and label each planet of our solar system and be able to place them in order from closest to the Sun.

Explanation

This activity is set up so that students can identify the planets by what they look like. The activity is also set up to help children identify the relative placement of the planets in order from closest to the Sun. Children have the chance to set up the activity on their own and have the option to repeat the activity as needed after checking their work.

Children begin by setting up the activity and following the instructions on the student sheet. They will then place the planets in order from closest to the sun. Once they have them in order, they will then label each planet. After labeling the planets, students will then check their work. This will be done by flipping the labels over and making sure then number on the back corresponds to the number on the back of the planets. Checking their work will help the students realize what they need to improve on.

Common Misconceptions

-The Earth is in the center of the solar system and the other planets orbit around it.

-The Sun is not a star.

- Pluto is still a planet.

- Earth is the largest planet.

Real World Connection

The real world connection for this activity is the images of the planets. The images are relative to how the planets look in real life. Another real world connection is that the diagram shows that the planets orbit the Sun.

Connections Across the Curriculum

CCSS.Math.Content.3.MD.B.4 Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units— whole numbers, halves, or quarters.

The students could research the distance between the planets and the sun. They could then use rulers to measure the distance between the planets in the activity. Once they have measured the distance they could compare the measurement to their research.

CCSS.ELA-Literacy.W.3.7 Conduct short research projects that build knowledge about a topic.

The students could do research over many things such as, the sizes of the planets, the distance between the planets, and what each planet is made up of.

GLE 0307.Inq.3 Organize data into appropriate tables, graphs, drawings, or diagrams.

The students could record their research of the sizes of planets, or the distance between planets on different types of graphs and record their findings in their learning logs.

References

Tennessee State Standards:

<http://www.state.tn.us/education/ci/sci/doc/SCI_Grade_3.pdf>

<http://www.corestandards.org/Math/Content/3/MD>

<http://www.corestandards.org/ELA-Literacy/W/3>

Source for Planet images:

<http://psychiclibrary.com/beyondBooks/astrological-planets>

Source for Common Misconceptions

<http://www.lpi.usra.edu/education/pre_service_edu/planetsMisconceptions.shtml>