

Content: Science/Art	Grade/Course: 3rd	Timeline: Feb. 22 -26, 2016
Standard(s): 3.4.8 Describe the earth's relationship to the sun, moon and other members of the solar system		
Lesson Overview: This lesson introduces students to the other objects other than our Sun and the other planets in our solar system.	Lesson Objective(s): I can... <ul style="list-style-type: none"> • Describe the other members of the solar system from pictures or PowerPoint • State the characteristics of each member of the solar system • Define the terms asteroids, meteors and meteorites, comets • Draw the minor members of the solar system 	
Vocabulary: Solar system, comet, orbit, coma, asteroids, meteoroid	Focus Question(s): <ul style="list-style-type: none"> • What kinds of objects do we see in the night sky? • What kind of things exist in our galaxy? • How can we detect this object in the night sky? • How does this celestial object affect life on Earth? • What kinds of objects orbit the Sun or the planets? • What are the smaller celestial bodies found in space? 	

Description of Lesson (Including Instructional Strategies):

Anticipatory Set: PowerPoint of other members of the solar system, drawing materials, handouts

Instruction and Strategies:

Feb. 22: Show PPT of other members of the solar system. After watching the PowerPoint, ask children to describe them.

Feb. 23: Have the class watch *The Story of the Solar System* to learn more about the Milky Way galaxy and our solar system. After watching the program, review the information students learned about the objects in our galaxy and solar system.

Feb. 24: Divide the class into groups of 7 - 8 and assign expert groups to do Jigsaw

Group 1: Asteroid

Group 2: Meteors and Meteorites

Group 3: Comets

Note: Members of the expert groups come from the home groups

Students present their information per group.

Class summary through a PPT is likewise presented to augment student presentation

Feb. 25: Children draw the comets, meteorites (shooting star) and asteroids and write a brief description of it.

Feb. 26: Review followed by a unit test.

Guided Practice: Completing activity sheets, project

Formative Assessment:

Oral questions, process assessment, product assessment, unit test

Closure:

Children will summarize the lessons by reviewing the concepts learned and then taking the test.

Independent Practice: Worksheet, graphic organizers, notebook assignments, drawings, posters

Accommodations/Modifications:

Group work to help one another, use of bigger pictures, one-to-one

Resources (Textbook and Supplemental):

Videos from the Internet , Harcourt Science Book, Harcourt Science Workbook, PPT on other members of the solar system, handouts for expert groups, drawing materials

Reflection:

**RUBRICS FOR GROUP WORK
(PROCESS ASSESSMENT)**

CRITERIA	Needs Improvement 1 point	Fair 2 points	Good 3 points	Very Good 4 points
Contribution	One or more members do not contribute.	All members contribute, but some contribute more than others.	All members contribute equally.	All members contribute equally, and some even contribute more than was required.
Cooperation	Teacher intervention needed often to help group cooperate.	Members work well together some of the time. Some teacher intervention needed.	Members work well together most of the time.	All members work well together all of the time; assist others when needed.
On task	Team needs frequent teacher reminders to get on task.	Team is on task some of the time. Needs teacher reminders.	Team is on task most of the time. Does not need any teacher reminders.	Team is on task all of the time. Does not need any teacher reminders.
Communication	Members need frequent teacher intervention to listen to each other and speak to each other appropriately.	Members need some teacher intervention to be able to listen to each other and speak to each other appropriately.	All members listen to each other and speak to each other in equal amounts.	Each member listens well to other members. Each member speaks in friendly and encouraging tones.

Answers:

1. B – 93 million miles
2. C – Venus
3. A – Venus
4. A – One
5. C – Earth
6. Saturn, Jupiter, Uranus, Neptune
7. Saturn, Jupiter, Uranus, Neptune
8. Mercury, Venus, Earth, Mars
9. Uranus
10. It's too small

Content: Science/Art	Grade/Course: 3rd	Timeline: Jan 18 - 22, 2016
Standard(s): 3.1.1 Generate a question that can be answered by science and develop a hypothesis. 3.1.3 Demonstrate the ability to work cooperatively while respecting the ideas of others and communicating one's own conclusions about findings.		
Lesson Overview: Scientific problem Hypothesis Hypothesis testing Inference	Lesson Objective(s): I can... <ul style="list-style-type: none"> • Formulate a hypothesis to solve a scientific problem. • Write a procedure to test the formulated hypothesis. • Make inferences based on observations made. 	
Vocabulary: Condensation Condensation nucleus	Focus Question(s): <ul style="list-style-type: none"> • How are clouds formed? • How does condensation occur in cloud formation? • What are the other proofs of condensation taking place? 	

Description of Lesson (Including Instructional Strategies):

Anticipatory Set: Picture of a cloud

Instruction and Strategies:

Jan 18: Show a picture of a cloud and post the problem on the board: How are clouds formed? In groups, have them discuss the answer to the problem. Then let them present their answers. Introduce the word hypothesis as a tentative solution to a problem.

Jan 19: Review the students' hypotheses formulated in the previous lesson. Make a list of them on the board and have a group choose one hypothesis to test. Have each group write a procedure to test the hypothesis chosen.

Jan 20: Show a hypothesis and the procedure to test it. Distribute a copy of the procedure to each group and have the group leader read it and have the group follow step-by-step the procedure with accompanying materials. Explain that what they did is an experiment to test the hypothesis.

Jan 21: Discuss the results of the experiment. Relate it to what happens in nature as cloud is formed. Introduce the term condensation nuclei as the dust particles in air on which water vapor changes from gas to liquid. Translate this change from gas to liquid through a movement activity.

Jan 22: Show a glass filled with ice. Have them observe what to the outer part of the glass.
 Ask: What collects on the outer part of the glass? Where did it come from? Introduce the word inference as answers based on observations made. Explain the process of condensation that has taken place with the glass acting as condensation nucleus on which water vapor in the air condenses. Relate it to the condensation that is taking place in cloud formation.

Guided Practice: Completing activity sheets and worksheets; project making

Formative Assessment:

Worksheets, oral questions, participation in class discussion

Closure:

Children will summarize the lessons by reviewing the concepts learned.

Independent Practice: Worksheet, graphic organizers, notebook assignments

Accommodations/Modifications:

Group work to help one another, use of bigger pictures, one-to-one

Resources (Textbook and Supplemental):

Pictures from the Internet (natural resources and products from resources), Harcourt Science Book, Harcourt Science Workbook, PPT

Reflection:

Rubric for the Assessment of Participation

Rubric for Student Participation

Assessment	Very Good	Good	Fair	Needs Improvement
Class Discussion	Most students were able to answer all the questions.	Most students were able to answer some of the questions.	The students were able to answer a few questions.	Class simply listened but remained passive during discussion.
Worksheet	All the students (100%) got the answers right.	Most of the students (80%) got the answers right.	Some students (60%) got the answers right.	A few (40% or less) got the answers right.
Group Work	Everybody in the group was on task	Most members of the group were doing the activity	Some members of the group were actively engaged in the activity	Majority of the members were not paying attention/\.

Content: Science/Art	Grade/Course: 3rd	Timeline: Jan 11 - 15, 2016
Standard(s): 3.4.1 Give examples of how change is a repeated process occurring on Earth. 3.4.4 Use pictures and words to describe natural phenomena. Example: The occurrence of the different phases of the moon		
Lesson Overview: Review of the phases of the moon as a repeated process occurring on earth	Lesson Objective(s): I can... <ul style="list-style-type: none"> • Review the processes involved in the phases of the moon • Describe the different positions of the moon and the part lighted for each position. 	
Vocabulary: Phases Positions Waxing Waning Moon calendar	Focus Question(s): <ul style="list-style-type: none"> • What is a moon phase? • How does the moon assume different phases? • How long does the moon undergo different phases before the process of changing position is repeated? 	

Description of Lesson (Including Instructional Strategies):
Instruction and Strategies:

Anticipatory Set: Diagram of the phases of the moon

Jan 11: Show the diagram of the moon phases. Ask: What are the phases after a moon month? Explain that the moon's revolution around the earth is responsible for the moon's changes in position that give rise to different phases.

Jan 12: Have the students demonstrate the different positions of the moon in relation to the sun and earth. Ask for the shape or phase of the moon for each change in position.

Jan 13: Review the different phases of the moon. Have them draw each phase and write the name of the phase. Have them tell how many phases need to be repeated in two months, 3 months, 4 months.... (integration with math)

Jan 14: Show an animated presentation of the moon phases. Have them draw the position of the moon in relation to sun and earth for each of the phases – new moon, first quarter, full moon and last quarter.

Jan 15: In groups, have them discuss the phase of the moon during a lunar eclipse. Have them draw the position of the moon, earth and sun during a lunar eclipse. Review tides. Have them discuss when neap and spring tides occur. What phase of the moon is involved in spring and neap tides. Have them draw the position of the moon, earth and sun during neap and spring tides.

Guided Practice: Completing activity sheets and worksheets

Formative Assessment:

Worksheets, oral questions, participation in class discussion
Tests on phases of the moon, lunar eclipse and tides.

Closure:

Children will summarize the lessons by reviewing the concepts learned and then taking the test.

Independent Practice: Worksheet, graphic organizers, notebook assignments, drawings, posters

Accommodations/Modifications:

Group work to help one another, use of bigger pictures, one-to-one

Resources (Textbook and Supplemental):

Pictures from the Internet, YouTube, Harcourt Science Book, Harcourt Science Workbook, PPT

Reflection:

Rubric for the Assessment of Participation

Rubric for Student Participation

Assessment	Very Good	Good	Fair	Needs Improvement
Class Discussion	Most students were able to answer all the questions.	Most students were able to answer some of the questions.	The students were able to answer a few questions.	Class simply listened but remained passive during discussion.
Worksheet	All the students (100%) got the answers right.	Most of the students (80%) got the answers right.	Some students (60%) got the answers right.	A few (40% or less) got the answers right.

Content: Science/Art	Grade/Course: 3rd	Timeline: Jan. 25 – 29, 2016
Standard(s): 3.1.2 Answer questions by safely collecting and analyzing data. 3.1.3 Demonstrate the ability to work cooperatively while respecting the ideas of others and communicating one's own conclusions about findings.		
Lesson Overview: Data Collection and Analysis Fact book	Lesson Objective(s): I can... <ul style="list-style-type: none"> • Collect data on phases of the moon • Organize the data and analyze them • Record data in a fact book 	
Vocabulary: Relative position Phenomena – moon phases, tides, lunar eclipse	Focus Question(s): <ul style="list-style-type: none"> • How are the phases of the moon formed? • What is the position of the moon in each phase? • What other phenomena arise out of the moon's relative position with sun and earth? 	

Description of Lesson (Including Instructional Strategies):

Anticipatory Set: Problem sheet and a fact book

Instruction and Strategies:

Jan 25: Distribute a problem sheet to each group. Problem #1: What are the different phases of the moon? Draw each one and describe how each is formed. Have them research on the answers to the problem from textbook and handouts.

Jan 26: Continue the research by answering the second problem: What is the relative position of the moon with sun and earth for each moon phase? Draw the moon's relative position. Have them research on the answers to the problem from textbook and handouts.

Jan 27: Continue the research by answering the third problem: What are the phenomena that arise out of the moon phases? Review lunar eclipse as one phenomenon and have them research on it. Have them draw the position of the moon relative to the sun and earth.

Jan 28: Review tides and how they occur. Have them do a research on the two types of tides. Have them draw the position of the moon relative to the sun and earth.

Jan 29: Show a sample fact book. Have them discuss in groups how they would organize their data into a book form. Using Elmo have them present the content of their book to class.

Guided Practice: Completing worksheets and fact books

Formative Assessment:

Worksheets, oral questions, participation in group work, product assessment

Closure:

Children will summarize the lessons by presenting their fact book.

Independent Practice: Worksheet, graphic organizers, notebook assignments, drawings, fact book

Accommodations/Modifications:

Group work to help one another, use of bigger pictures, one-to-one

Resources (Textbook and Supplemental):

Internet, Harcourt Science Book, Harcourt Science Workbook, PPT, elmo

Reflection:**Rubric for Process and Product Assessment****Rubric for Student Participation**

Assessment	Very Good	Good	Fair	Needs Improvement
Product Assessment – Fact Book	All data were accurate, very sufficient and well organized	All data were correct and sufficient but organizational flow was lacking	Some data were correct and sufficient; organizational flow was lacking	Some data were correct but insufficient; data organization was poor
Worksheet	All the students (100%) got the data right.	Most of the students (80%) got the data right.	Some students (60%) got the data right.	A few (40% or less) got the data right.
Group Work	Everybody in the group was on task	Most members of the group were doing the activity	Some members of the group were actively engaged in the activity	Majority of the members were not paying attention/\.

Content: Science/Art	Grade/Course: 3rd	Timeline: Feb 15 - 19, 2016
Standard(s): 3.4.8 Describe the Earth's relationship to the moon, stars, and other planets. 3.1.1 Generate a question that can be answered by science and develop a hypothesis. 3.1.2 Answer questions by safely collecting and analyzing data. 3.1.3 Demonstrate the ability to work cooperatively while respecting the ideas of others and communicating one's own conclusions about findings.		
Lesson Overview: The Earth's Position Relative to the Planets The Jovian Planets Hypothesis formulation based on the Problem: Why does the earth have only one moon compared with the bigger planets with several moons?		Lesson Objective(s): I can... <ul style="list-style-type: none"> Name the planets beyond the earth's orbit Name the outer planets Describe the characteristics of the outer or Jovian planets Identify the number of moons that the Jovian planets have compared with earth's one moon
Vocabulary: Jovian planets Planet's satellites		Focus Question(s): <ul style="list-style-type: none"> What are the planets beyond the earth? Why are the planets beyond earth called "outer planets" or "Jovian planets"? What are the characteristics of the Jovian planet? How many moon do the Jovian planets have and how do they compare with the planet's moon?

Description of Lesson (Including Instructional Strategies):

Anticipatory Set: Picture of the solar system

Instruction and Strategies:

Feb 15: Show a model of the solar system and ask where the earth is. Have them name the planets that go beyond earth. Discuss why they are called outer planets. Present the table of distances and relate it to the term "outer" planet. Have them draw the outer planets.

Feb 16: Show each of the outer planets and discuss their composition. Relate the composition with the term "gaseous" planet. Introduce the term "Jovian" as gaseous.

Feb 17: Show a table of planet moons. Ask which planets have the most moons and which planets have very few or no moons at all. Discuss why certain planets have more moons and others have very few or none at all. Have them draw the planet with the most moons and the planet with one moon (earth). Ask what would be the night situation in the planet with more moon.

Feb 18: Give a handout about the solar system. Have them choose a member of the solar system and make them do a booklet of it.

Feb 19: Divide the class into groups and have them play the role of tourists who intend to visit a planet or a member of the solar system. The group who did the booklet of a particular member of the solar system will act as a tourist company. Have the tourist company talk about their tourist spot (a planet or any member of the solar system) to encourage the tourist group to join their tour to

Guided Practice: Completing worksheets; project making

Formative Assessment:

Worksheets, oral questions, participation in group work

Closure:

Children will summarize the lessons by presenting their fact book.

Independent Practice: Worksheet, graphic organizers, notebook assignments, fact book

Accommodations/Modifications:

Group work to help one another, use of bigger pictures, one-to-one

Resources (Textbook and Supplemental):

Pictures from the Internet, Harcourt Science Book, Harcourt Science Workbook, PPT

Reflection:

Rubric for Process and Product Assessment

Rubric for Student Participation

Assessment	Very Good	Good	Fair	Needs Improvement
Worksheet	All the students (100%) got the data right.	Most of the students (80%) got the data right.	Some students (60%) got the data right.	A few (40% or less) got the data right.
Group Work	Everybody in the group was on task	Most members of the group were doing the activity	Some members of the group were actively engaged in the activity	Majority of the members were not paying attention/\.

Content: Science/Art	Grade/Course: 3rd	Timeline: Feb 8 - 12, 2016
Standard(s): 3.4.8 Describe the Earth's relationship to the moon, stars, and other planets. 3.1.1 Generate a question that can be answered by science and develop a hypothesis. 3.1.2 Answer questions by safely collecting and analyzing data. 3.1.3 Demonstrate the ability to work cooperatively while respecting the ideas of others and communicating one's own conclusions about findings.		
Lesson Overview: The Earth's Position Relative to the Planets Terrestrial planet Vs Jovian planet The Earth's Distance from the Sun in Comparison with the Other Planets	Lesson Objective(s): I can... <ul style="list-style-type: none"> • State that the Earth is a planet • Name the characteristics of a planet • Identify the position of the earth in relation to the other planets • State that the earth is one of the terrestrial planets • Name the planets in order of their distance from the sun 	
Vocabulary: Terrestrial Jovian Orbit Axis	Focus Question(s): <ul style="list-style-type: none"> • What are the characteristics of a planet? • What are some interesting characteristics of the earth? • How does the earth move? • How far is the earth from the sun? 	

Description of Lesson (Including Instructional Strategies):

Anticipatory Set: Pictures of stars

Instruction and Strategies:

Feb 8: Show a model of the solar system and ask where the earth is. Discuss the characteristics of the earth as a planet. Have them draw the earth and the things found on earth.

Feb 9: Show a diagram of the distance of the earth and other planets from the sun. Ask for the 4 planets near the sun. Introduce the terms inner planets and terrestrial planets. Discuss why they are called terrestrial. Have them read the facts about the 4 planets from their textbook. Have them compare their distances from the sun through a line drawing.

Feb 10: Show a globe. Direct their attention to the axis and have them describe it. Stress that the earth moves on its axis for a period of 24 hours or one day. Have them compare the length of days of the 4 planets. Which one moves on its axis very fast? Revisit the word rotation as movement of the planet on its axis. All the planets except Venus move in a counterclockwise direction. Have them demonstrate the movement of the 4 planets.

Feb 11: Have them open their textbook to ppD60-D61. Have them compare the length of year of the 4 planets. Ask: Which one has the longest length of year and the reason for it. Stress that the planet moves around the sun following an imaginary path called orbit. Ask: Which one has the biggest orbit. Have them see the relationship between length of year and size of the orbit. Revisit the word revolution. Have them describe the

movement. As a closure activity show a PPT of the 4 planets.

Feb 12: Divide the class into 4 groups. Assign a planet to a group. Each group makes a fact book. Then, have each group demonstrate the rotation and revolution of the planet assigned to them.

Guided Practice: Completing worksheets

Formative Assessment:

Worksheets, oral questions, participation in group work, fact book

Closure:

Children will summarize the lessons by presenting their fact book.

Independent Practice: Worksheet, graphic organizers, creating a fact book

Accommodations/Modifications:

Group work to help one another, use of bigger pictures, one-to-one

Resources (Textbook and Supplemental):

Pictures from the Internet, Harcourt Science Book, Harcourt Science Workbook, PPT

Reflection:

Rubric for Student Participation

Assessment	Very Good	Good	Fair	Needs Improvement
Worksheet	All the students (100%) got the data right.	Most of the students (80%) got the data right.	Some students (60%) got the data right.	A few (40% or less) got the data right.
Group Work	Everybody in the group was on task	Most members of the group were doing the activity	Some members of the group were actively engaged in the activity	Majority of the members were not paying attention.

Content: Science/Art	Grade/Course: 3rd	Timeline: Feb. 1 – 5, 2016
Standard(s): 3.4.8 Describe the Earth’s relationship to the moon, stars, and other planets. 3.1.1 Generate a question that can be answered by science and develop a hypothesis. 3.1.2 Answer questions by safely collecting and analyzing data. 3.1.3 Demonstrate the ability to work cooperatively while respecting the ideas of others and communicating one’s own conclusions about findings.		
Lesson Overview: Earth’s distance from the stars Stars – color, temperature, size Constellations	Lesson Objective(s): I can... <ul style="list-style-type: none"> • Describe stars in terms of color and degree of hotness • Relate distance with the size of a star as seen from earth • Describe patterns of stars • Explain the apparent twinkling of stars 	
Vocabulary: Stars Patterns of stars constellations	Focus Question(s): <ul style="list-style-type: none"> • What are stars? Is the sun a star? • What are the colors of stars? • Are colors related to hotness of a star? • Why are some stars big and others small? • Do stars really twinkle? 	

Description of Lesson (Including Instructional Strategies):

Anticipatory Set: Pictures of stars

Instruction and Strategies:

Feb 1: Show a video of the earth and stars. Discuss how far they are from the earth. Discuss how distance is related to the size of the star we see on earth. End with a song “Star bright, Star light”.

Feb 2: Show a candle light. Ask which color of the flame is coolest? Also, ask them about the color of the fire in their gas stove. Which color shows that the gas in the tank is decreasing slowly? Relate these observations with the color of the star and their temperature. Show a PP of stars – their colors and temperature. Have them draw the earth surrounded by stars of different colors and sizes.

Feb 3: Show a PPT of patterns of star and the shapes they form when we look at them from earth. Introduce some familiar constellations and have them draw their favorite star pattern.

Feb 4: Show the song “Twinkle, Twinkle Little Star” and have them sing it. Ask if stars really twinkle and the reason why they say so. Take note of their responses.

Feb 5: Demonstrate an experiment to show that stars don’t twinkle. Follow it up with a PPT. Have them discuss in groups what they found out from these activities. Then have them present what they have discussed.

Guided Practice: Completing activity sheets and worksheets

Formative Assessment:

Worksheets, oral questions, participation in group work

Closure:

Children will summarize the lessons by presenting their findings.

Independent Practice: Worksheet, graphic organizers, notebook assignments, drawings, posters

Accommodations/Modifications:

Group work to help one another, use of bigger pictures, one-to-one

Resources (Textbook and Supplemental):

Pictures from the Internet, Harcourt Science Book, Harcourt Science Workbook, PPT, song, video

Reflection:

Rubric for Process and Product Assessment

Rubric for Student Participation

Assessment	Very Good	Good	Fair	Needs Improvement
Worksheet	All the students (100%) got the data right.	Most of the students (80%) got the data right.	Some students (60%) got the data right.	A few (40% or less) got the data right.
Group Work	Everybody in the group was on task	Most members of the group were doing the activity	Some members of the group were actively engaged in the activity	Majority of the members were not paying attention/.

Content: Science/Art	Grade/Course: 3rd	Timeline: March 7 -11, 2016
Standard(s): 3.4.8 Describe the Earth's relationship to the moon, stars, and other planets. 3.1.1 Generate a question that can be answered by science and develop a hypothesis. 3.1.2 Answer questions by safely collecting and analyzing data. 3.1.3 Demonstrate the ability to work cooperatively while respecting the ideas of others and communicating one's own conclusions about findings.		
Lesson Overview: The effects of gravitational attraction of sun and moon over earth giving rise to tides and eclipses	Lesson Objective(s): I can... <ul style="list-style-type: none"> • Review tides and eclipses and define them • Explain the occurrence of tides and eclipses in relation to the position of earth with sun and moon 	
Vocabulary: Neap Spring Lunar Solar	Focus Question(s): <ul style="list-style-type: none"> • What is a tide? • What are the two kinds of tide? • What is an eclipse? • What are the 2 kinds of eclipses? • What is the relationship of sun and moon positions with tides and eclipses? 	

Description of Lesson (Including Instructional Strategies):

Anticipatory Set: Picture of Sun, Moon and Earth in Space

Instruction and Strategies:

March 8: Show a PPT of Isaac Newton. Show the picture of sun, moon and earth in new moon and full moon phases. Ask: What tides occurs in these phases. In groups, have them discuss what happens during full moon when the tides are high. Read them the story of full moon and high tides.



Isaac Newton. Gravity Part 1 of 2.mp4



Isaac Newton. Gravity Part 2 of 2.mp4

March 9: Show a video of tides and discuss the two types of tides mentioned.

[AdventureElements1](#)

[Understanding Tides Part 1](#)

by [AdventureElements1](#)

A guide to the basics of tides.

March 10: Show the positions of the sun, moon and earth on space. This time make them in straight line. Ask: What happens when they are on straight line. Show the full moon phase but make the positions of sun, moon and earth in straight line. Ask: What is eclipsed or hidden? Review lunar eclipse with them.

March 11: Show a video and discuss the two types of eclipses. Use TGT (Team Games Tournament) to review tides and eclipses. After each group review, have the members of the home groups go to their respective tournament groups and start the game.

Eclipses -How & Why-Education Video for Kids from www.makemegenius.com



What is an Eclipse_(clip)(1).mp4

Guided Practice: Completing the project

Formative Assessment:

Product assessment, oral questions, participation in group work

Closure:

Children will summarize the lessons by explaining the occurrence of tides and eclipses and defining the terms presented in the video.

Independent Practice: Worksheet, graphic organizers, notebook assignments, drawings, posters

Accommodations/Modifications:

Group work to help one another, use of bigger pictures, one-to-one

Resources (Textbook and Supplemental):

Pictures and videos from the Internet, Harcourt Science Book, Harcourt Science Workbook, PPT

Reflection:

Rubric for Process and Product Assessment

Rubric for Student Participation

Assessment	Very Good	Good	Fair	Needs Improvement
Worksheet	All the students (100%) got the data right.	Most of the students (80%) got the data right.	Some students (60%) got the data right.	A few (40% or less) got the data right.
Group Work	Everybody in the group was on task	Most members of the group were doing the activity	Some members of the group were actively engaged in the activity	Majority of the members were not paying attention/\.

Content: Science/Art	Grade/Course: 3rd	Timeline: Feb. 29 – March 4, 2015
Standard(s): 3.4.8 Describe the Earth's relationship to the moon, stars, and other planets. 3.1.1 Generate a question that can be answered by science and develop a hypothesis. 3.1.2 Answer questions by safely collecting and analyzing data. 3.1.3 Demonstrate the ability to work cooperatively while respecting the ideas of others and communicating one's own conclusions about findings.		
Lesson Overview: Scaled Model of the Planets – Sizes and Distance from the sun	Lesson Objective(s): I can... <ul style="list-style-type: none"> • Construct sizes of the planets using a scaled model • Construct the planets' orbits around the sun using a scaled model of distances from the sun • Compare planet sizes in terms of the scaled model • Compare distances of the planets from the sun 	
Vocabulary: model scaled diameter	Focus Question(s): <ul style="list-style-type: none"> • What is a scaled model? • How is the scaled model done? • How do the planets compare in terms of sizes? • How do the planets compare in terms of distances from the sun? 	

Description of Lesson (Including Instructional Strategies):

Anticipatory Set: Picture of the solar system

Instruction and Strategies:

Feb. 29: Show a table of the planets' sizes and distances from the sun. Discuss how to make a scaled model. Show a scaled model of the planets' sizes. Have them use the scaled measurement of sizes in cm units to measure the diameter of each planet. Distribute materials to construct the planets' sizes. Have them compare the sizes of the terrestrial planet with those of the Jovian planets.

March 1: Show a table of the planets' sizes and distances from the sun. Review how to make a scaled model. Show a scaled model of the planets' distances from the sun. Have them use the scaled measurement of distances in mm units. Spread on the floor a long roll of butcher paper. Draw the sun in one corner and have them measure in mm units the distance from the sun of the planet assigned to their group. Mark it at the center of the butcher paper. Have them draw the orbit from the mark drawn. Give them a yarn and have them follow the orbit traced.

March 2: Have them glue the planets that they have made based on the scaled measurement on the orbit previously made. Have them compare the sizes of the planets and their distances from the sun.

March 3: Have them compare their scaled model of the solar system with the model they previously made and the models found in the book. Have them choose which model is accurate and the reasons for their choice. End the lesson with a video of the solar system

March 4: Use TGT (Team Games Tournament) to review the solar system. After each group review, have the members of the home groups go to their respective tournament groups and start the game.

Guided Practice: Completing the project

Formative Assessment:

Product assessment, oral questions, participation in group work

Closure:

Children will summarize the lessons by presenting their scaled model of the solar system.

Independent Practice: Worksheet, graphic organizers, notebook assignments, drawings, posters

Accommodations/Modifications:

Group work to help one another, use of bigger pictures, one-to-one

Resources (Textbook and Supplemental):

Pictures from the Internet, Harcourt Science Book, Harcourt Science Workbook, PPT, rulers, butcher paper, yarn

Reflection:

Rubric for Process and Product Assessment

Rubric for Student Participation

Assessment	Very Good	Good	Fair	Needs Improvement
Worksheet	All the students (100%) got the data right.	Most of the students (80%) got the data right.	Some students (60%) got the data right.	A few (40% or less) got the data right.
Group Work	Everybody in the group was on task	Most members of the group were doing the activity	Some members of the group were actively engaged in the activity	Majority of the members were not paying attention/.