Mathematics Scope and Sequence

Week 1   7.01A **Number, operation, and quantitative reasoning.** The student represents and uses numbers in a variety of equivalent forms.
The student is expected to:
(A) compare and order integers and positive rational numbers;

Sun's Placement and Temperature differences on the moon

Using the Nasa website have the students research the temperatures of the moon and the sun's placement. Have them make a spread sheet and then determine the differences and the placement.

Week 2   7.01B **Number, operation, and quantitative reasoning.** The student represents and uses numbers in a variety of equivalent forms.
The student is expected to:
   (B) convert between fractions, decimals, whole numbers, and percents mentally, on
        paper, or with a calculator;

 Conversion-decimal, fraction, and percent-in the Moon phases

Take the temperature differences and the Sun's placement from week and convert them from a whole number to a fraction, decimal, and a percent.

Start with the moon phases – example quarter moon- have them convert that to a fraction, decimal, and then a percent.

Week 3   7.01A   **Number, operation, and quantitative reasoning.** The student represents and uses numbers in a variety of equivalent forms.
The student is expected to:
(A) compare and order integers and positive rational numbers;

Dilation and Scale drawing of the Earth, moon, and Mars

Use the scale of the earth and relate them to the cantaloupe, orange, and a lime. Determine the scale of each compared to the actual sizes of the Earth, Moon, and Mars.

http://www.nasa.gov/audience/foreducators/topnav/materials/listbytype/The_Moon_Gateway_Teachers_Guide.html

Week 4   7.02D   Number, operation, and quantitative reasoning. The student adds, subtracts, multiplies, or divides to solve problems and justify solutions.
The student is expected to:
 (D) use division to find unit rates and ratios in proportional relationships such as speed, density, price, recipes, and student-teacher ratio;
 Proportional relationships of the natural resources

http://www.nasa.gov/audience/foreducators/topnav/materials/listbytype/Extra-Credit_Problems_in_Space_Science.html

**Week 5   7.01A   Using Integers to compare levels of landforms for Palo
                Canyon and craters.**

After exploring Palo Duro Canyon have the student locate sea level on a map and then determine the positive and negative location of each one.

http://www.nasa.gov/audience/foreducators/topnav/materials/listbytype/Impact_Craters.html

http://www.nasa.gov/audience/foreducators/topnav/materials/listbytype/Lava_Layering.html

Week 6   7.2D and 7.3A Patterns, relationships, and algebraic thinking. The student solves problems involving direct proportional relationships.
The student is expected to:
(A) estimate and find solutions to application problems involving percent; and

Speed and distance of the meteoroids hitting the moon and comparing them.

http://www.nasa.gov/audience/foreducators/topnav/materials/listbytype/Distance_Moon.html

Extension--Coordinate grid and Graphing data collected.

Students will use their mapping skills that they learned in Social Studies in order to understand the coordinate grid.

Students may also use the grid to plot the planets in order to understand their placement

Students will graph the data in groups with each group doing a different graph