UNIT 3: Earth, Sun, Moon, Gravity Name: _____

Lesson 4: Earth, Sun, Moon, Shadows Assessment Date: _____

Earth, Sun, and Moon Relationship
Creating a Model

Objective/Goal:

We can use a model to communicate Earth's relationship to the Sun, Moon, and stars that explains
(a) why people on Earth experience day and night,
(b) patterns in daily changes in length and direction of shadows
(c) changes in the apparent position of the sun, moon, and constellations at different times during a day, over a month, and over a year.

Any model used should illustrate that the Earth, sun, and moon are spheres; include orbits of the Earth around the sun and of the moon around Earth; and demonstrate Earth's rotation about its axis.

Task:

You have learned about and used different types of models this year. For the assessment for this unit, you will be working in small groups to create a model of the relationship between the Earth, Sun, and Moon. You may create any type of model you wish, using any materials in the classroom. If you would like to bring in additional materials from home, you are welcome to.

Process:

Using your Science Journal:

1. Brainstorm ideas for your model (think outside the box! How can you represent the light of the sun? How will you represent the orbits of the Earth and Moon? How can you represent changes in shadows or the constellations that we see?)
2. Sketch out/diagram a few possible ideas in your journal
3. Make a list of any materials you will need
4. Assign specific roles to each person
5. Begin each class period with specific goals that you would like to accomplish for that day
6. At the end of each day, recap your progress towards your goal and set new goal for next class

Evaluation: A rubric (attached) will be used to determine how well you meet the objective. You will be doing a self assessment using the rubric, then your peers and teacher will also assess you. The grades will be combined to create your final grade for this project.