

Sky Gazers

Grade Cluster – K-2

NETS-S- 3 - Research and Information Fluency

Quick Look:

Students will observe and record what they see in the sky at night over the course of one month. They will create their own explanations for changes they observe in the moon and compare their explanations to the facts.

Scenario:

"Wow! Did you see the moon last night?" says Maria as she shares the spectacular sight she witnessed with a classmate. This is the day the class will launch a Sky Gazers science unit with a particular focus on the changes in the moon. The students have been excitedly talking about it for a week.

"Students, over the next month we will be acting like real scientists by using our observation skills to track the changes we see in the night sky," says the teacher. Throughout the year, students in Room 28 have been graphing weather patterns during Morning Meeting. Today, the teacher shares with the students that they will soon add the cycles of the moon to their daily routine. The children are excited to participate in this new homework project. "Each night, before you head to bed, I'd like you to take a peek at the night sky." The teacher then tells the children to draw a quick sketch of what the moon looks like each night. These sketches will be shared during the morning meeting time.

That night, the children draw a sketch of the moon as it looks at that moment along with any other stars or clouds they might see in the sky. The following morning, the children gather for Morning Meeting with their sketches. As expected, the drawings all look very similar. Maria anxiously raises her hand to share her drawing using the [document camera](#). "Hey, that looks just like mine," the students shout as they recognize the sketch.

"Now, let's confirm your observations," says the teacher. Maria clicks on the link at the bottom of today's message, which takes the class directly to Google Moon. Everyone claps for Maria because her drawing is almost exactly like the photograph of the current phase of the moon (3c). This new routine of sketching the moon and checking Google Moon continues for the remainder of the lunar cycle (about a month's time). Each morning, after students compare their drawings to what they find on Google Moon, students take turns copying and pasting the Google Moon image into a class calendar. This way the children can see the changes occurring with the moon.

Later that day, the children roll in from recess. This is a favorite time of day for most children because it means that Mrs. F. is going to read a new story to them. Children can't wait to find out what they will hear today. Mrs. F. pulls out a copy of Janet Ruth Heller's How the Moon Regained Her Shape. This is a legend about the sun bullying the moon, which leads to her disappearing. After the moon regains confidence, she slowly reappears back to her full size. Mrs. F. then shares with the students that they will have to opportunity to come up with their own explanation of why the moon changes its shape.

"Boys and girls, I want to give you the chance to share your thoughts about why you believe the moon looks different each night." Students turn and talk, sharing their beliefs for a brief moment as Mrs. F. slowly tiptoes to the corner of the room where a large sheet conceals her next surprise.

A chime rings, reminding the children to stop, look, and listen. The students turn their attention to Mrs. F. as she unveils the large selection of children's books; all of which focus on the night sky. She shares that these stories are available to the children during reading time. Some of the stories are more challenging for the young readers, so fifth grade reading buddies will help with this. Mrs. F. has also selected a variety of web sites for students to visit and learn more about the moon. These sites are neatly compiled into a "Moon folder" using NetTrekker. Students use these sites on a regular basis (6a), so they understand how to navigate from the folders to sites. Students can develop their own theories from pictures, facts, and interactive sites. "Boys and girls, your job is to come up with your own idea of why the moon changes. You can read from any of these stories, or look online with your reading buddy to find out what other people might believe, but I'm curious to hear your explanations"(3a,b,c).

That day Mrs. F. sets up a [*VoiceThread*](#) with a large picture of the moon in its current phase. Students develop their own stories and explanations and record them into their own *VoiceThread*. Each child illustrates a picture along with the story. These are inserted into their *VoiceThread*. During literacy time, students are fully immersed in the Sky Gazers theme. They read with buddies, write their own stories, and comment on the stories of their peers on the *VoiceThread*, (3d, 6d). The *VoiceThread* is later made available to parents who can comment on their child's theory of the changing moon.

At the end of the unit, students publish their stories with the help of their big buddies. These spectacular stories are compiled into a class book. Copies are made for each student and the class dedicates one of the copies to the school library. Parents and families are invited to a family sharing night in the classroom. As they walk through the door of the room, black lights emphasize the glowing stars and half-moon illuminating the ceiling. The mood is set and students read their original stories projected on the interactive whiteboard to parents (3d).

Student Standards – The following NETS-S are noted in the Scenario:

3. Research and Information Fluency– A, B, C, D
6. Technology Operations and Concepts – A, D

Teacher Standards –Teachers who teach this unit address the following NETS-T:

1. Facilitate and Inspire Student Learning and Creativity - A, B, C, D
2. Design and Develop Digital-Age Learning Experiences and Assessments – A, B, C
3. Model Digital-Age Work and Learning – A, B, C, D
4. Promote and Model Digital Citizenship and Responsibility – B, C
5. Engage in Professional Growth and Leadership – B, C

Content Grade Expectations

The scenario writer has identified the following content grade expectations that s/he felt might be assessed in this scenario. In most of these scenarios, there may well be opportunities to assess other or additional content grade expectations across a variety of disciplines. If you are interested in developing a unit or lessons based on the following scenario, and you don't see any grade expectations in your content area, we encourage you to capture the ideas presented in the scenario and make it your own by adding components that address the grade expectations you are most interested in assessing.

SP1-2:44 Students demonstrate their understanding of characteristics of the solar system by...

- Observing and describing qualitatively how the sky looks at different times and
- Keeping a journal record of the shape of the moon each night for a month.

H&SS1-2:2 Students develop a hypothesis, thesis or research statement by...

- Using prior knowledge to share ideas about possible answers to questions.