

Re-purposing Technology Lesson Plan

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TE 831

Summary Box

Lesson title: Sun, Moon, and Stars, Oh My!

Prepared by: Kaile Kim

Subject area: Science

Technology used: bunceee, Flipgrid

Length of lesson: 3 days (30 minutes per day)

Suggested grade level: K-1

Lesson Objectives: *The student will be able to*

- Use observations of the sun, moon, and stars to describe patterns that can be predicted. (1-ESS1-1)
- Make observations at different times of year to relate the amount of daylight to the time of year. (1-ESS1-2)

Student NETS Standards Alignment:

- 2b-Students engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices.
- 6c-Students communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models or simulations.

Materials:

- Computer/Chromebook/iPad (1 per student)
- [Flipgrid](#) teacher and student accounts
- [bunceee](#) teacher and student accounts
- *If I Were an Astronaut* by Eric Brown. Read-aloud can also be found [here](#).
- [Solar System](#) interactive field trip
- BrainPopJr. [Sun](#), [Moon](#), and [Earth](#) videos
- YouTube videos: [The Sun, Earth, and Moon](#), [Day and Night](#)
- [Moon Phase Labeling](#) activity on Seesaw
- Activity sheets provided below

Lesson Procedure:

Beginning (Day 1- The Sun)

The teacher will share and explain the learning targets for this lesson. Students will be given an opportunity to share with a partner what they know about the sun, moon, and stars. The teacher will read/play *If I Were an Astronaut* by Eric Brown. Students will then watch BrainPopJr. Sun video. The teacher will explain that the sun is a star that is in the center of the solar system and all the planets orbit around it. As a whole group, we will discuss the characteristics of day:

- What does the sky look like at night?
- What is the sun?
- What activities can be done when the sun is out?

The students will respond to the Flipgrid topic [“What did you learn about the sun?”](#). This Flipgrid will be used as a formative assessment for this lesson.

Middle (Day 2- The Moon and Stars)

As a whole group, we will discuss the characteristics of night:

- What does the sky look like during the night?
- What activities can you do during the night?

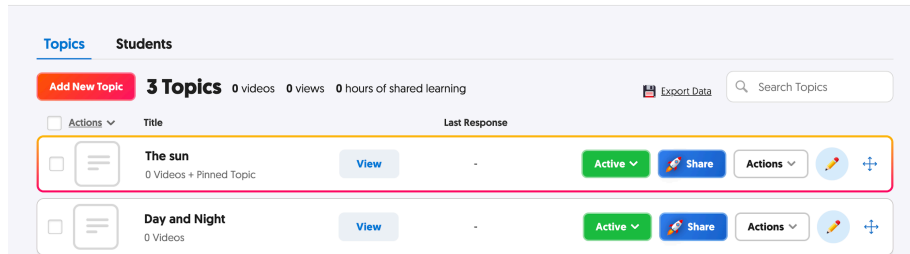
The teacher will show a YouTube Moon video where students will learn about the phases of the moon. Students will learn about the characteristics of Earth’s moon, the moon’s orbit around Earth, and how one side of the moon is lit by the sun, causing phases of the moon. On Seesaw, students will complete the Moon Phase Labeling on their individual devices. Then, they will create their own buncees to show their understanding of the eight phases of the moon. These activities will be used as a formative assessment for this lesson.

End (Day 3- Day and Night)

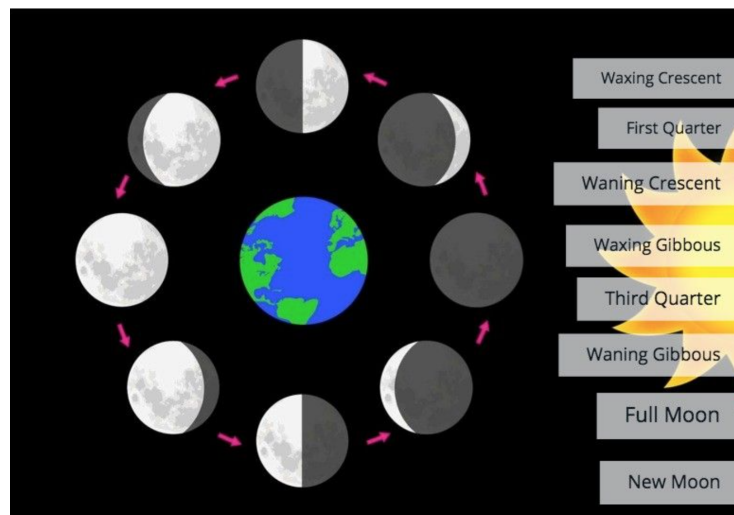
The teacher will review facts about the sun and moon. Then they will show Day and Night YouTube video and explain that day and night is caused by the rotation of the moon. We will go on a Solar System Interactive field trip and students will share their observations and discoveries. Finally, the students will use their individual devices to respond to the Flipgrid topic [“Day and Night”](#). The students will need to share what they learned about the sun and moon, and how the phases of the moon affect what we see in the sky.

Additional Resources:

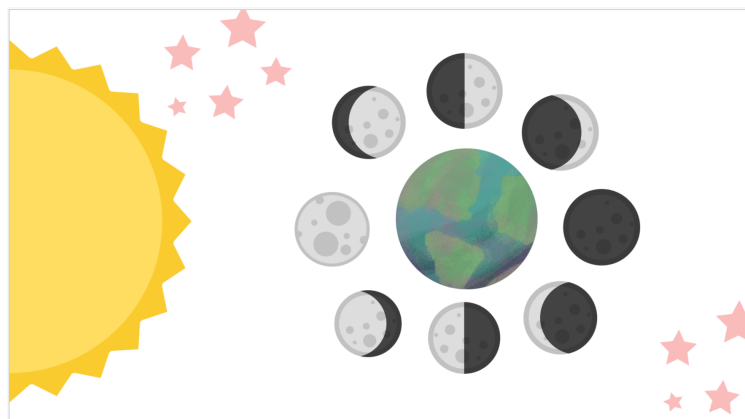
Here are examples of finished pages and students could create when using buncees to demonstrate their understanding of the sun and moon, and differentiating between day and night. I have also included a screenshot of my Flipgrid account that shows the topics of this lesson.



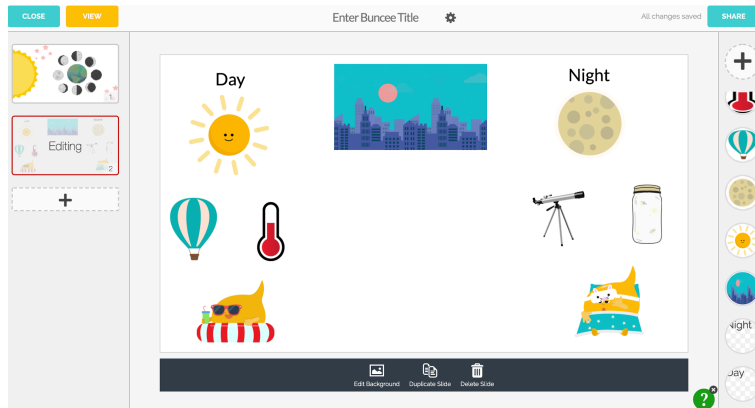
This is a screenshot of my Flipgrid account. I created a Grid called “Sun, Moon and Stars” where students answer questions based on a topic.



In this Seesaw activity, students will place the label next to the appropriate picture for each phase of the moon.



This is an example of a buncees that a student could create showing the eight phases of the moon using the web images and buncees stickers



Here is an example of a buncee page of a student showing the differences between day and night. Students can create their page using the text features and buncee animations.

Reflection

This lesson is about the solar system which is geared toward kindergarten and first graders. In this lesson, the students are introduced to the characteristics of the sun, moon, and stars. They are engaged in conversation about the concept of day and night, what distinguishes the two, and how the sun affects the phases of the moon. This three-day lesson uses various multimedia tools, but I chose to focus on two which were buncee and Flipgrid. Buncee was one of the websites I explored for our Tech Tools project but have not implemented it in with my students. This assignment was a great opportunity for me to practice creating pages and discover ways to promote student engagement. I also chose to use Flipgrid as a form of formative assessment to encourage self-expression through an online platform. The way these sites were utilized aligned with two student NETS standards:

- 2b-Students engage in positive, safe, legal and ethical behavior when using technology, including social interactions online or when using networked devices.
- 6c-Students communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models or simulations.

Prior to completing this lesson plan, I did take into consideration the different theories we learned in previous modules, and how I would apply them appropriately based on the grade level. Since TPACK is framework based on re-purposing technology, I needed essential knowledge for technology and integrated it with my teacher knowledge. First, I decided that I would present the information using a read-aloud, whole group discussions, and videos from various websites (PCK). Based on the standards I wanted to address, I had to identify the technologies I would incorporate where the students would translate their learning and understandings (TCK). With the buncee and Flipgrid application, the students would communicate their ideas effectively through multimedia tools such as creating digital poster boards, and responding to prompts through video and voice recordings (TPK).

Since I was a novice buncee user, and unfamiliar with Flipgrid, I had to first familiarize myself with both sites to ensure I was capable of using and

teaching. The SCOT theory emphasizes that technology's purpose comes from people and the way they use it, so my knowledge of the websites would reflect how my students respond to the activities. There were many tutorials and examples of how to use both Buncee and Flipgrid on YouTube. Buncee in particular was simple and accessible in creating accounts, and I was able to create a Buncee right away. Buncee is an interactive version of drawing a picture using a pencil and paper. Here, students are able to redefine and express their ideas using the media palette. This lesson was created with the assumption that students are familiar with the functions and tools of Buncee. Prior to this, I would need to explicitly teach how to access the palette, drag and drop images, and editing such as resizing and moving images around. However, one of the affordances of Buncee is that each tool has a picture where it is easy to figure out what that button does. This would be beneficial for students who are not at a reading level yet or are English Language Learners. One constraint I found with Buncee is its limited access to images in the search bar. When I was creating a sample Buncee, it took some time to find the images I wanted. Although I could find another image online and upload it to my Buncee, that would be more time consuming rather than searching for an image and finding it right away. Another possible constraint to this website is that it does not offer a voice recording option. To accommodate young learners, it would be practical for students to explain their Buncee using their voice if they are unable to type out sentences yet.

Navigating Flipgrid was a little more complex because I did not realize there was a difference between grids and topics. Once I figured out how to create both, the rest of the setup was self-explanatory. Flipgrid is an augmentation for writing on a piece of paper, where technology acts as a direct tool with functional improvement. I could have easily given students a worksheet and asked them to respond to the given prompts. Instead, Flipgrid allows them to record themselves and share their answers with their peers. This activity would require students to understand what it means to use safe, ethical behavior which would be taught prior to this lesson. Another feature I appreciate is the Mixtapes where I can compile everyone's response and view them all in one grid. One feature that Flipgrid lacks is the ability for students to respond to their peers through text or recording. The NETS 6c standard would be further addressed where students are interacting with others and sharing their thoughts on someone else's ideas.

This specific lesson is meant for lower elementary students, but these technologies can definitely be used in any grade level and subject area. Buncee can be used in a more complex manner where the students are asked to create a slideshow about each planet in the solar system. Flipgrid is also a universal application that can be used in any grade level. Instead of just making a video recording, students could incorporate performing arts into it and act out a scene from a book they are reading. Then, the recordings could be compiled in a Mixtape where the class can guess what book they are referring to. These are just some of the many ways Buncee and Flipgrid can be utilized and both sites give examples and support to create endless activities.

After completing this lesson plan, my knowledge, skills, and dispositions have changed in regard to theories and my approach to curriculum. I was unknowingly addressing different TPACK forms just by designing the lesson and

integrating technology that was developmentally appropriate. My skills in applying bunce and Flipgrid have increased, along with my ability to enhance my use of technology. Based on the SAMR model, I used the substitution and augmentation method based on the needs of kindergarten and first grade students. In the future, I would like to modify and redefine my use of technology to transform the way students view learning.