

DAY 1: LESSON AND ASSESSMENT PLAN

Curriculum Standards

GSE (Georgia Standards of Excellence) / National Curriculum Standards

<https://www.georgiastandards.org/Frameworks/Pages/BrowseFrameworks/Frameworks.aspx>

S6E1. Obtain, evaluate, and communicate information about current scientific views of the universe and how those views evolved.

e. Ask questions to compare and contrast the characteristics, composition, and location of comets, asteroids, and meteoroids

ISTE Technology Standard

<https://www.iste.org/standards/for-students>

Empowered Learner

Students leverage technology to take an active role in choosing, achieving, and demonstrating competency in their learning goals, informed by the learning sciences.

1c. Students will use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.

- This technology standard 1c will be utilized as a summative assessment given through technology that will inform their practice and demonstrates the knowledge obtained from the lesson.

Mode of Instruction

Online Synchronous

Learning Objective/Goal(s)

This lesson plan is for 6th grade Middle School Earth Science students. The observation comes during our astronomy unit 1. The students are from diverse backgrounds including African American and Latinx students and a few Caucasians with various level of academic success. Many of the students are diverse learners.

- Students will be able to explain the differences among comets, meteors, and asteroids based on physical features and composition.
- Students will be able to compare and contrast comets, meteoroids and asteroids based on characteristics, composition, and location.
- Students will be able to explain the difference between a meteor and meteorite.
- Students will be able to describe what happens to a meteoroid/meteor as it moves from outer space to the Earth's surface.

Formative & Summative Assessment

Success Criteria: The student will be able to define what Asteroids, Comets, and Meteoroids.

1. Prior Knowledge will be assessed by discussing the about the Keeley (USI) probe "Where Would it Fall". This will assess prior knowledge of asteroids comets and meteors within the class. Which one and why?
2. Periodic checks for understanding will be assessed during the PowerPoint presentation by the teacher. Teacher will ask leading questions. Teacher will check for understanding by asking for thumbs up on the screen. Teacher/Students will revisit the "Where Would it Fall" probe and discuss if they have changed their thinking.
3. Formative. Take quick quiz in ItsLearning labeled WK7 L1 Quiz Asteroids, Comets, Meteor. This will assess the students understanding of the lesson by at the end. The quiz will be automatically graded in is learning. Technology Standard 1c. Students will use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.

Differentiation, Modification(s), & Accommodation(s)

Students will be given more time to write in their notebook the information that is on the PowerPoint. The teacher will pause and point out the most relevant information from the lesson.

The students can view and complete the quiz on in BrainPOP on Asteroids and Comets. BrainPOP is an app provided through Rockdale counties Class link system. Watch BrainPOP video and take the quiz will be assigned to all students for differentiation and reinforcement of learning. The short video will assist the students in answering the five-question movie quiz that is connected to the BrainPOP.

Students will be allowed to give their answers verbally or to attend small group sessions to reinforce today's lesson.

Instructional Strategies & Learning Tasks to Support Diverse Learners' Needs

Introduction or Student Spark (20 minutes)

The teacher will read the Georgia Standards of Excellence and the learning targets to the class.

I do: The teacher will have the students read the Keeley (USI) probe "Where Would it Fall" and complete a discussion board on how to explain their reasons behind objects dropping out of space to earth.

Teacher and students will have a scientific discussion allowed using our classroom etiquette to speak in turn about the Keeley (USI) probe, "Where would it fall?" The phenomenon, rocks in space, will be introduced at this point to the students. Students will raise their hand, be called on, and speak one at a time. The teacher will lead discussion using "Talk Moves" to drive the conversation. Students will be given 30 seconds to one minute to explain their position and describe where they think asteroids and meteorite could fall on the earth. Students are also allowed to comment in the chat box. The teacher will read what is typed or ask another student to read what is typed. (See the about the Keeley (USI) probe "Where Would it Fall" below.

Questions asked will include: Do you agree? What do you think could happen? Why do you think this happens?

Where Would It Fall?

Six friends were talking about asteroids and meteorites that could fall to the Earth. The friends wondered where an object from space would most likely fall. This is what they said:

Maya: "I think it has the greatest chance of landing in a desert."

Elsa: "I think it is most apt to land where humans are living."

Walter: "I think it will most likely land in an ocean."

Mac: "I think it will probably land on an ice-covered area."

Amber: "Chances are it will land on the largest continent."

Evan: "Most likely it will land in a body of freshwater."



Which person do you most agree with? Explain your reasons for where you think a large object from space would most likely fall.

Body (45 minutes)

TC Name: Valena Spencer

Day & Date: Week 7 Lesson 1 October 5, 2020 (Oct. 6, 2020)

Subject Area & Grade Level: Earth Science 6th Grade

Number of Students in Class: Period 2 has 24 Students Period 5 has 27 Students.

We do: The teacher will have the students view a PowerPoint on Comets, Asteroids, and Meteors. The teacher will share the screen and teach the students about comets, asteroids, and meteors by using the PowerPoint. I will engage the students by asking questions in pointing out differences in the space rocks. The power point will be upload it into ItsLearning for access in viewing for the facilitator. Checks for understanding will be assist during the PowerPoint verbally with thumbs up thumbs down and answering questions aloud from verbal cues, Link to PowerPoint - https://studentsrockdalek12ga-my.sharepoint.com/:p:/g/personal/mhinds_rockdale_k12_ga_us/EfAcVN8GVihO12qGJ76aVP0BHDuVJfIkouQXpQTEfP5URg?e=FpDYZz

Instructional supports- Students will use their science notebooks to take notes during the PowerPoint presentation.

Haley's Comet- At the end of the PowerPoint, there is a slide about Haley's comet. Halley's comet comes near enough to earth to be seen every 75 years. Students will calculate with the teacher the age that they will be when Halley's comet next comes near the earth in the year 2061. The science students will be shown how to do the math on a Word document using the draw tool. Discussion will be allowed with "Talk Moves" executed by the Teacher.

Transition: the PowerPoint screen will be unshared. The teacher will tell the students about the quick quiz in its learning. The teacher will share the screen of ItsLearning. The teacher will show the students how to access the quiz and how to begin. The quiz will open at the end of my final class so that students will not have access to the test before they attend classes. this will allow for greater understanding and better summative assessments of students. After the end of the quiz, the students will be instructed to submit by clicking the green submit button.

You do (Asynchronous homework): Student will answer a Formative Assessment Quiz in ItsLearning titled WK7 L1 Quiz Asteroids, Comets, Meteors.

Transition: When there is 5 minutes left in the class, the teacher will begin to introduce the culturally relevant pedagogy to connect the students' culture with our lesson.

Closure (5 minutes)

In closing, I will begin to describe the asynchronous lesson to the students that is centered around Historically Responsive Framework (Muhammed 2020 p. 159. The component that we will focus on is Identity's: How will your teaching help students to learn something about themselves and/or others. I will tell the students that October is Hispanic heritage month an in recognition of this we will study a Latina Astronaut Ochoa.

During their asynchronous day, students or instructed to watch a video describing the life of astronaut Ellen Ochoa. After watching the video students, will respond to the following in a discussion post. The discussion board is found in ItsLearning under the assignments for the week. This discussion board is labeled Wk 7 L2 to assist students in finding it. I will share my screen with the virtual class and walk them through locating the asynchronous assignment. The instructions are below. Once students have completed the assignment, they must hit submit.

Instructions: After watching the video, respond to the following: How do you think astronaut Ochoa would respond to this question? How does the moon differ from an asteroid? (Students are to go to assignment on Discussion Board in ItsLearning)

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https://www.youtube.com/watch?v=qe9-ZEf_6k

Final Video – Real World Encounters with an Asteroid

<https://youtu.be/VDhyYy8Z00I>

The purpose of showing this video at the end is to bring the science to life for the students. It shows the relative distance of asteroids, the process of sampling, and its return to earth to be tested.

Note: An end of the unit summative assessment will be given between Oct. 28 to November the 2nd to Rockdale County schools for unit 1 (CUA). It is a standardized test for the County for all 6th grade Earth Science students.

Facilitation & Safety

Teacher will make sure the students are engaged by calling their names and asking for volunteers to read or to explain their answers. Engagement will also be facilitated during the PowerPoint presentation. Building a relationship with the students from the beginning of the year has allowed certain students to be more comfortable in speaking directly to the teacher. Students are instructed to place the letters BRB in the chat to alert the teacher then they are going to be right back. This can be for the restroom, to go pick up their lunch from the lunch bus delivery, or something else. This cuts down on interruptions and distractions from detracting attention in our learning environment. I tell the students that they can take one or two minutes to go and to return. Small group instruction is available every day at 2:45pm based on the class. Students can utilize this time for deeper understanding, to assist in finding lessons, and to have questions answered. Teacher will provide a positive learning environment and continue our classroom culture of equity and celebration of students answering and speaking up whether they are wrong or right. We typically give everyone who participated a hand clap at the end of the discussion.

Layered Texts and Other Materials

Keeley (USI) probe "Where Would it Fall" provided in ItsLearning and A PDF to display on the screen is provided. PowerPoint provided in ItsLearning.
Laptop computer provided by the school district.

References

<https://www.georgiastandards.org/Frameworks/Pages/BrowseFrameworks/Frameworks.aspx>

[ItsLearning Virtual Platform](#)

[Microsoft TEAMS](#)

Muhammad, G. (2020). Cultivating Genius: An Equity Framework for Culturally and Historically Responsive Literacy. Scholastic.

<https://rcpsscience-nsta-patron.eb20.com>

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[https://studentsrockdalek12ga-my.sharepoint.com/:p:/g/personal/mhinds_rockdale_k12_ga_us/EfAcVN8GVih0l2qGj76aVP0BHDuVJF\]kouQXpQTEfP5URg?e=FpDYZz](https://studentsrockdalek12ga-my.sharepoint.com/:p:/g/personal/mhinds_rockdale_k12_ga_us/EfAcVN8GVih0l2qGj76aVP0BHDuVJF]kouQXpQTEfP5URg?e=FpDYZz)

https://www.youtube.com/watch?v=qe9-ZEf_6

<https://youtu.be/VDhyYy8Z00I>