**Lesson Plan Template**
**Date: 10/7/2020**

**Grade: 5th** | **Subject:** Science

**Materials:** Handouts, Pencils, and Scissors | **Technology Needed:** computer, projector

**Instructional Strategies:**

- € Direct instruction
- € Guided practice
- € Socratic Seminar
- € Learning Centers
- € Lecture
- € Other (list)
- € Peer teaching/collaboration/ cooperative learning
- € Visuals/Graphic organizers
- € PBL
- € Discussion/Debate
- € Modeling

**Guided Practices and Concrete Application:**

- € Large group activity
- € Independent activity
- € Pairing/collaboration
- € Simulations/Scenarios
- € Other (list)
- € Hands-on
- € Technology integration
- € Imitation/Repeat/Mimic

Explain:

**Standard**

**5-ESS1-1-** Support an argument that the apparent brightness of the sun and stars is due to their relative distances from the Earth.

**Objective**

By the end of the lesson, students will identify the characteristics that make Earth an ideal place to live by comparing effects of star brightness, planet size, and planet distance from a star.

**Bloom's Taxonomy Cognitive Level:** Remembering and Analyzing

**Universal Design for Learning**

**Below Proficiency:**

- Students who are below proficiency will struggle to complete the tasks and discussions presented in this Mystery Science without direct assistance. A.U. will need frequent assistance until her full-time aid can join us.

**Above Proficiency:**

- Students who are above proficiency will have no difficulty in completing the tasks and discussions presented in this Mystery Science. In order to challenge these students, I will prompt them to go into more detail in their discussions.

**Modalities/Learning Preferences:**

- **Visual:** Students will see the videos and all instructions.
- **Auditory:** Students will listen to the videos and instructions.
- **Kinesthetic:** N/A
- **Tactile :** Students will be completing hands-on tasks

**Classroom Management- (grouping(s), movement/transitions, etc.)**

- Groupings: Students will remain seated at their desks and will work within their desk pairs.
- Movement: Movement will be limited in this lesson. The only movement should be obtaining supplies.
- Transitions: I will facilitate topic transitions by utilizing call backs (come back to me in 3, 2, 1) and reminders as many times as necessary. I will also let students know the amount of time they have to discuss and work.

**Behavior Expectations- (procedures/expectations specific to the lesson, rules and expectations, etc.)**

- Students will be seated at their desks for instruction.
- Students will demonstrate safety with their scissors (only used to cut out sheets of paper. Otherwise, sitting in the corner of their desks.)
- Students will be respectful of classmates by not interrupting others or talking while the videos are playing.
- Students will raise their hands to ask or answer questions unless instructed otherwise.
- Work time voice levels will not exceed a 2.
- Students will transition quickly and quietly (20 seconds or less).

| Minutes | Procedures |
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| | **Set-up/Prep before lesson:**<br>● Handouts organized and ready to distribute.<br>● Mystery Science lesson pulled up on computer with projector on. |
| **1 min** | **Engage: (opening activity/ anticipatory Set – access prior learning / stimulate interest /generate questions, etc.)**<br>● We will be using a Mystery Science for our science lesson today. Doug will be helping us learn more about what makes a planet habitable (define if needed) and whether or not there could be life on other planets.<br>● Before we start, I want to briefly touch on your expectations for this mystery science. I am expecting you all to be actively listening to our videos, actively listening to each other during the activity, and contributing to your group's work. Are there any questions about your expectations for this time?<br>● Let's dive into the possibility of life on other planets! |

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| **15 min** | **Explain: (teacher-led)**<br>● Play beginning video segments<br>○ Discussion 1:<br>■ What places would YOU visit in our solar system?<br>■ What kinds of dangers would you have to protect yourself from?<br>■ How would you protect yourself?<br><br>○ Discussion 2:<br>■ How would YOU decide which exoplanet to visit first? |
| **35 min** | **Elaborate: (concreate practice/application with relevant learning task -connections from content to real-life experiences)**<br>● From here on out this is going to be fast-paced, so we need to be sure we're on our A-game with listening and following directions.<br>● Partner with person across from you<br>● 10 seconds to pick who will be the water wizard and who will be the plant pro<br>● *hand out water wizard and plant pro sheets*<br>● ?Why are we focusing on plants and water instead of different characteristics?<br>● You have your sheets. Now is the time to get your scissors.<br>● 10 seconds to cut off decoder<br>● 1 minute to read your water and plant information<br>● 15 seconds to circle the important information<br>● 1 minute to label decoders (reiterate which is too cold, too hot, and just right)<br>● *Remember, you and your partner won't always have the same answers for your planets because you are assessing two different things*<br>● 2 minutes to "X" and check mark planets<br>● *Hand out starlight guide and mission plan as they work*<br>● 3 minutes for Mission Plan<br>● 5 minutes for questions 1 & 2 on starlight guide<br>● Review together with Doug<br>● *Hand out gravity guru and spinning specialist papers* (reiterate who gets which one)<br>● 1 minute to read<br>● 1 minute to discuss and X out planets they don't want<br>● 1 minute to discuss and choose your planet<br>● 3 minutes for starlight guide question 3<br>● 1 minute whole group discussion on what planet groups chose to travel to<br>● Play last video<br>○ Do you think there could be life on another planet?<br>○ Do you think we'll ever be able to travel to a planet in the Trappist system that Doug was talking about, or any other solar system? |
| **5 min** | **Closure (wrap up and transition to next activity):**<br>● From today's Mystery Science lesson, we learned that Earth is unique and is considered to be in a "Goldilocks Zone"<br>● What causes Earth to be in the Goldilocks Zone?<br>○ Brightness of the sun<br>○ distance from the sun<br>○ size<br>● Please put your papers from science into your binders to go home. Your task tonight is to share what you learned about planets and which we can live on with your families.<br>● At this time, we are going to move into Word Study<br>● After putting away your science papers, you will need to get out your Word Study sheets from yesterday so we can review them. |

| **Formative Assessment: (linked to objective, during learning)** | **Summative Assessment (linked back to standard, END of learning)** |
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| ● **Progress monitoring throughout lesson (document of student learning, data collection)**<br><br>● Listening in to group discussions<br><br>● Assessing each group's reasoning for which planet they chose to travel to and why. | |

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| **Teacher Reflection (What went well? What did the students learn? How do you know? What changes would you make?):** | |