**Q405: Saturday Science FS22**

**Lesson Plan Template 1**

**Grade level: 3/4**

**Anchoring Question/Phenomena for the unit:** How do we see the sky?!

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| **Desired Results** | | |
| **Driving Question for this week’s Saturday Session**   * What tools do we use to observe the night sky? | | |
| **DCI Addressed in lesson:**  **Explain this idea (in your own words---not the internet) AND its importance to answering the driving question for the unit.** | **SEPS Addressed in Lesson:**  Developing using models. Our lesson will have students developing a telescope. | **CCCs Addressed in Lesson:**  Scale, proportion, and quantity |
| **Learning objectives (outcomes):**  ***What do you want students to be able to explain/state in response to the specific lesson question?***  Students will be able to explain/state [USE KIDS’ WORDS]:  Students should be able to construct a telescope and be able to explore items in the night sky through the telescope | | |
| **Timeline of Activities for the Day** | | |
| \**Provide a breakdown of how long each activity will take, who will lead the segments of the activities, when breaks will occur or other transition points, etc.*  *\*Highlight in green the time period of the lesson your team wants video-recorded for the week. Should be ~30-40 mins total.*  Lauren and robert: welcome activity (8 min)  Robert: Definitions (5 min)  Lauren: informative video (15 min)  Robert: KWL chart (15 min) (Record here)  Lauren and robert: Construct a model of a telescope (20 min)  Robert: Explain- supporting ideas with evidence/ SCAV HUNT ACTIVITY (10 min)  Lauren: Elaborating understanding (filling out KWL chart) (5 min)  Lauren: Overall discussion about what was learned / formative assessment(10-15 min) (record here for lauren) | | |
| **Learning Plan**  *Any of these phases can be repeated should you have more than one activity to describe for the day OR a complex activity with multiple iterations of some of these phases.* | | |
| **ENGAGE**   * Informative video This creates curiosity and interest and also raises questions. * KWL chart- elicits responses that uncover what students know or think about the concept/topic. Know about what telescopes are/observe in the night sky. Want to know about how to use a telescope and other types of questions students may have. Learned about how we see objects in the sky through a telescope. * Class discussion What makes a planet different than a star? How can we differentiate planets from one another?Is there a way to tell which planet is closer to one another? * Discussion after class about what was learned about a telescope observing the night sky. * Students will discuss how the telescope can help us see objects and how it is constructed * <https://youtu.be/1sZ15SUeS9w> (constellations) * <https://youtu.be/-_6nYgel4JI> (comets)   **EXPLORE**  Construct a model: Build a telescope to be able to see things in the night sky.  Encourages students to work together without direct instruction from the teacher. Students will use their telescope and look into the night sky at pictures of objects around the room.  **EXPLAIN**   * Supporting ideas with evidence. Encourages students to explain concepts and definitions in their own words. (Students will grab their telescope and look inside of it aiming at things around the classroom replicating things in the night sky.   **ELABORATING/EXTENDING Understanding**   * Teacher will refer to existing data and ask what you think already? What do you know? Students will record observations and explanation on KWL chart (what they learned about telescopes) | | |
| **Formative Assessment Evidence (\*This is the Evaluation Phase of the 5E approach)** | | |
| Formative assessment: Overall discussion with questions about todays lesson. What makes a planet different than a star?  How can we differentiate planets from one another? Is there a way to tell which planet is closer to one another? |  |  |
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**Materials + Quantity: (REMEMBER ---These need to be emailed Tulli (tuariya@iu.edu) each Wednesday by 5:00pm)**

\*\*20 kids\*\*\*

22 paper towel rolls

Masking tape (2 roles)

Construction paper (white)

Construction paper colored 22 pieces (22 pieces)

KWL Charts (lauren will handmake)

Marker sets

Stickers big packs for kids

Scissors (10 pairs)

Flashlights (10)

Telescope?

Pictures on google about these WITH NAMES: Find mars (8x10) Find earth (8x10)Find the sun (8x10) Find the cosleations (8x10) orion, big dipper, little dipper, ursa major and ursa minor, halley's comet (PLEASE PRINT OUT ALL 8X10 with labels)

<https://docs.google.com/presentation/d/187_eqwBVyeIzf-PUPlIX0rrh6X_PgMgpPg1tji6xOpA/edit?usp=sharing>

**Q405: Saturday Science FS22**

**Lesson Plan Template 2**

**Grade level: 3/4**

**Anchoring Question/Phenomena for the unit: What are the different planets?**

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| **Desired Results** | | |
| **Driving Question for this week’s Saturday Session**   * What planets can we see with our naked eye? * What are the differences between each planet * What is the order of each planet closest to the sun? | | |
| **DCI Addressed in lesson:**  **Explain this idea (in your own words---not the internet) AND its importance to answering the driving question for the unit.** | **SEPS Addressed in Lesson:**  3.RN.2.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers. | **CCCs Addressed in Lesson:** |
| **Learning objectives (outcomes):**  ***What do you want students to be able to explain/state in response to the specific lesson question?***  Students will be able to explain/state [USE KIDS’ WORDS]: Name all of the planets in our solar system, as well as their correct order from the sun  Students should be able to tell the difference between planets. | | |
| **Timeline of Activities for the Day** | | |
| \**Provide a breakdown of how long each activity will take, who will lead the segments of the activities, when breaks will occur or other transition points, etc.*  *\*Highlight in green the time period of the lesson your team wants video-recorded for the week. Should be ~30-40 mins total.*  Lauren & Robert Welcome activity: (5 minutes)  Lauren and Robert: Review game (10 min) (9:40)  Lauren and Robert: Strongly agree and disagree (10min)  Lauren: Book picture book (20 min) (10:15)  Lauren and Robert: Activity (30 min)  Lauren: Formative assessment (10 min)  Lauren and Robert: Drawing and making your own planet (20) | | |
| **Learning Plan**  *Any of these phases can be repeated should you have more than one activity to describe for the day OR a complex activity with multiple iterations of some of these phases.* | | |
| **ENGAGE**   1. -Brief ice breaker   2 -Review- Students will engage in an activity which involves passing a tennis ball or another type of ball around to classmates about topics from last week   1. What did you learn about stars? 2. Why are stars brighter than others? 3. Name a kind of star   4 -Reading our book about the planets, we will have a discussion about planets along with the reading  5.) What are our planets? Video about the planets to spark curiosity and engagement before the activity. <https://www.youtube.com/watch?v=ErUZVWUP0c4>  **EXPLORE**   * Students will explore this lesson by building their own solar system: * Each group will make a solar system out of play-doh * \*Once groups are finished, they will create the solar system with their play-doh. * -One group will represent each planet   **EXPLAIN**  -Order of the planets book to explain to kids each planet and their attributions  -Reading them a book  -Students will explain their solar system in the order starting from the sun.  -Whole group demonstrations about the order of the planets  **ELABORATING/EXTENDING Understanding**   * Class discussion for understanding:What are the different planets? * Which planet is closest to the sun? * Why is the planet farthest from the sun? * What is the hottest planet? * What is the smallest planet? | | |
| **Formative Assessment Evidence (\*This is the Evaluation Phase of the 5E approach)** | | |
| Formative assessment: Overall discussion with questions about today's lesson. |  |  |
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<https://docs.google.com/presentation/d/1oBtlAQieT7z2tBxSjBGHnQEdjlkVXHZXg81fUBA3Hf8/edit?usp=sharing>