**Abbreviated Lesson Plan**

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| **Topic: The Moon** | | |
| **Grades:** 4th | | **Date:** 03-07-17  **Time:** 11:00 am  **HOT Questions:**   1. Does the moon reflect its own light? 2. What are the different objects the moon moves around? 3. When we cannot see the moon, is it still there? Why? 4. How long does it take for the moon to revolve around earth? 5. What are the moon’s three motions? 6. How does the moon rotate and revolve in the same amount of time?   **Assessment:**   * Thumbs up/Thumbs down – This is a great way to assess that students are on track when guiding questions are asked throughout the lesson. Students are often honest with their answers and therefore I think this is effective * Checkpoint Questions – These would be asked throughout the lesson to check student understanding and determine if I need to restructure my lesson. * Monitoring/Circulating – When students are in their groups, I will circle around and monitor to ensure that they are on task and in the right direction. Additionally, I will monitor as they work on their individual checkpoint questions. * Checklist – I will circulate with a checklist to make anecdotal notes which would determine how I group students for performance task.   Summative Assessment:   * Performance task – students are earth, moon and sun.   Exit Question:  Students would use index card and put a smiley face, neutral or sad face to show their understanding. |
| **Standard(s):** SC.4.E.5.4 Relate that the rotation of the Earth (day and night) and apparent movements of the sun, moon and stars are connected. | |
| **Essential Question:** How does the moon rotate and revolve? | |
| **Objective:** Students will be able to describe how the moon rotates and revolves. | |
| **Vocabulary:** rotate, revolve, investigable. | |
| **Materials:** Talking chips, paper, probes, science notebooks, chart paper, Youtube storybots video, Science textbooks, projector, Elmo, powerpoint, baggies (quarters and coins). | |
| **Opening (Engage)** | |
| **Time**  11:00  11:02  11:05  11:13 | **Task**  Class captain will read out objective and essential question. He/she will then instruct the class to turn and talk about what we are going to be doing today.  Students will be given a probe. They will take out their Science notebooks, and answer probe for three minutes.  When students are done, they would take out their talking chips and accountable conversation sheet, and have an academic conversation regarding the “moon.” When this is done, team recorders will write down the question asked that the group decide is most investigable and open ended. These definitions would be addressed. I will then record each group’s question on a piece of chart paper. We hope to answer these by the time we are done with the moon unit.  Students will then watch the following video. <https://www.youtube.com/watch?v=i235Y2HRksA> They will watch it twice. The first time they will just watch. The second time, I will pause at the following points to ask questions which they would discuss in their table groups.  0:30- Does the moon reflect its own light?  0:45- What are the different objects the moon moves around?  1:05- When we cannot see the moon, is it still there? |
| **Building Understanding (Whole Group Exploration / Core):** | |
| **Time**  11:18  11:23 | **Task**  I will then have equipment managers pass out Science notebooks to teach student, and turn to page 188. Students will read this page, while answering the following questions in their table groups, which would be displayed on a PowerPoint.  “How long does it take for the moon to revolve around earth?” (four weeks)  “What are the moon’s three motions?” (rotates, revolves around earth, and revolves around the sun with the eatch.)  Students will then turn to page 189. Equipment Scientists would pass out baggies that would be in the bin. Each would contain one penny and one quarter. The students would use these materials to answer, “How does the moon rotate and revolve in the same amount of time?” The students will use the penny to represent the moon and the quarter to represent earth. They will move the penny so that Lincoln’s nose is always pointing towards the quarter. The penny would rotate on its axis as it revolves around the quarter. Students would share out about this experience. |
| **Lesson Closure** | |
| **Time**  11:28 | **Task**  I would say, “Since today’s objective is to describe how the moon rotates and revolves, I want you to show me this motion.” I will divide students into groups of three, one person would be the sun, one the moon, and one earth. I will assess this performance task. |
| **Differentiation:**  **a student struggles with the content?**   * Can work with teacher at back of classroom. * Can get support from table partners during table talks * Model another example for class * This student would be paired with a stronger student for performance task.   **a student masters the content quickly?**   * Would encourage student to assist table partners who may be struggling. * Student can help with equipment distribution * I would ask higher order questions that encourage synthesizing   This student would be paired with a weaker student for performance task.  **How will you differentiate instruction for students who need additional language support?**   * I believe that this lesson is ESOL friendly due to the amount of visual support provided. * They can also be provided with a word call with definitions so that new vocabulary is accessible. * Students will be given sufficient thinking time before having to answer questions, as students who are learning a new language often need this “wait time.” | |