**Unit:**  **Guiding Question:**

**Instructional Sequence:**  **Resources:**

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| **What science and/or engineering content will be developed during this learning sequence?**  **Note**: This information comes from Tool 1 | **Science and Engineering Practices** | **Disciplinary Core Ideas** | **Crosscutting Concepts and Connections** |
|  |  |  |
| **What connections will be made?**  **Note**: This information comes from Tool 1 |  |  |  |
| **Performance Expectations**  **Note**: This information comes from Tool 1 |  | | |
| **What prior knowledge is crucial as a foundation for the learning sequence?**  **Note**: Review the previous grade band(s) for core idea |  | | |
| **Common Student Ideas**  **Note**: These ideas come from your experience teaching the topic, and the research on student ideas in science. Sources may include:  *Atlas of Science Literacy*, AAAS  *Making Sense of Secondary Science*, Driver |  | | |

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| **Engage:** The teacher or a curriculum task helps students become engaged by a natural phenomenon through the use of short activities that promote curiosity and elicit prior knowledge about the phenomenon and associated concepts. The activity should make connections between past and present learning experiences, expose prior conceptions, and organize students’ thinking toward the learning outcomes of activities in the instructional sequence. | | |
| What **teacher** is doing (including a brief description of the activity and key questions) | What **students** are doing (including ideal student response to selected questions/tasks)  Identify **SEP** as appropriate  Identify CCSS (ELA/literacy and math) as appropriate | **Anchor Phenomenon**  **Guiding Question**  **Science Concepts**  **DCI , CCC, PE** |
|  |  | **Anchor Phenomenon:**  **Guiding Question:** |

**Linking question from Engage to Explore:**

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| **Explore:** Experiences in the Explore phase provide students with a common base of activities within which students wrestle with their current conceptions about a natural phenomenon through the science and engineering practice identified in the performance expectation. Learners may complete activities that help them use prior knowledge to generate new ideas, explore questions, and/or design and conduct an investigation. | | |
| What **teacher** is doing (including a brief description of the activity and key questions) | What **students** are doing (including ideal student response to selected questions/tasks)  Identify **SEP** as appropriate  Identify CCSS (ELA/literacy and math) as appropriate | **Anchor Phenomenon**  **Guiding Question**  **Science Concepts**  **DCI , CCC, PE** |
|  |  | **Anchor Phenomenon:**  **Guiding Question**: |

**Linking question from Explore to Explain:**

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| **Explain**: During the Explain phase students are provided opportunities to demonstrate their conceptual understanding and use of science and engineering practices. In this phase teachers or instructional materials employ sense-making strategies and introduce academic language. An explanation from the teacher or other resources may guide learners toward a deeper understanding, which is a critical part of this phase. | | |
| What **teacher** is doing (including a brief description of the activity and key questions) | What **students** are doing (including ideal student response to selected questions/tasks)  Identify **SEP** as appropriate  Identify CCSS (ELA/literacy and math) as appropriate | **Anchor Phenomenon:**  **Guiding Question**  **Science Concepts**   * **DCI , CCC, PE** |
|  |  | **Anchor Phenomenon:**  **Guiding Question**: |

**Linking question from Explain to Elaborate:**

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| **Elaborate**: Teachers or instructional materials challenge and extend students’ conceptual understanding and use of science and engineering practices during the Elaborate phase. Through new experiences, the students develop deeper or broader understanding by applying their understanding or practice in a new context. During the Elaborate phase teachers may emphasize the crosscutting concept in the foreground of the instructional sequence. | | |
| What **teacher** is doing (including a brief description of the activity and key questions) | What **students** are doing (including ideal student response to selected questions/tasks)  Identify **SEP** as appropriate  Identify CCSS (ELA/literacy and math) as appropriate | **Anchor Phenomenon**  **Guiding Question**  **Science Concepts**   * **DCI , CCC, PE** |
|  |  | **Anchor Phenomenon:**  **Guiding Question**: |

**Linking question from Elaborate to Evaluate:**

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| **Evaluate**: Experiences in the Evaluate phase encourage students to assess their conceptual understanding and use of the practices. The experiences allow teachers to evaluate student progress toward achieving the performance expectation(s). No new ideas are introduced during the Evaluate. | | |
| What **teacher** is doing (including a brief description of the activity and key questions) | What **students** are doing (including ideal student response to selected questions/tasks)  Identify **SEP** as appropriate  Identify CCSS (ELA/literacy and math) as appropriate | **Anchor Phenomenon**  **Guiding Question**  **Science Concepts**   * **DCI , CCC, PE** |
|  |  | **Anchor Phenomenon:**  **Guiding Question**: |