|  |
| --- |
| NGSS Performance Expectation |
|  |

|  |  |  |
| --- | --- | --- |
| Science & Engineering Practices | Disciplinary Core Ideas | Cross Cutting Concepts |
|  |  |  |

|  |
| --- |
| Essential Questions (engaging question linked to Performance Expectation) |
|  |

EVALUATE - how will you assess student mastery of performance expectations (learning goals)?

* for students to assess their understanding of the learning objectives
* for the teacher to assess student understanding of the learning objectives

|  |  |
| --- | --- |
| Formative Assessment  (check-ins to inform instruction) | Summative Assessment  (to assess mastery of performance expectations) |
|  |  |

|  |  |
| --- | --- |
| Academic Vocabulary | Scientific Vocabulary |
|  |  |

|  |
| --- |
| Instructional Activity Resources (Which activities will help students achieve Learning Targets?) |

|  |
| --- |
| **ENGAGE**   * to convey the context of the unit by formulating an essential question * to engage students in investigations that reveal their thinking to themselves and the teacher * to record the initial ideas of students * to engage student interest   EX: Socratic Seminar (Math Talk or Science Talk), Media (video, pictures), Anticipatory Set, Qualitative inquiry, Predications, Demo |
| **ENGAGE**  **Performance Expectation & Essential Question addressed:**  What Teacher Does:  What Students Do: |
| **EXPLORE**   * to test ideas and develop knowledge using explorations, investigations, experiments * to modify and record ideas as they change due to activities * to develop new questions and testable hypotheses   EX: Inquiry, Group work/discussion, Project-Based-Learning, Online interactive module, Engineering/Design Project, Quantitative lab with data analysis & evidence |
| **EXPLORE**  **Performance Expectation & Essential Question addressed:**  What Teacher Does:  What Students Do: |
| **EXPLAIN**   * to answer the Driving Question and Focus Questions through student explanations * to provide students with relevant vocabulary, formal definitions and explanations of concepts   EX: Interactive or leveled notes, Reciprocal Reading, Leveled reading with graphic organizer, Clarify vocabulary, Socratic Seminar (Science Talk), Webquest, Small group instruction, Create a demonstration or model |
| **EXPLAIN**  **Performance Expectation & Essential Question addressed:**  What Teacher Does:  What Students Do: |
| **ELABORATE**   * to extend students' conceptual understanding through application or practice in new settings   EX: Webquest, Independent study projects, Differentiated activities, Online interactive module, small-group activity/discussion, verbal explanation instead of written, quantitative lab with data analysis & evidence |
| **ELABORATE**  **Performance Expectation & Essential Question addressed:**  What Teacher Does:  What Students Do: |