**LESSON PLAN TEMPLATE**

**DRIVING QUESTION**

What question will students be able to answer by the end of this lesson?

PHENOMENON:

What phenomenon “anchors” this lesson?

Target DCI Components:

Write your “unpacked” components here; this is what students will be able to explain at the end of the lesson

Science and Engineering Practices:

Write the practices students will engage in during this lesson

Crosscutting Concept

Write down the crosscutting concept that applies to this lesson

Strategies to Build on Student Interest and Ideas

Describe strategies you will use to leverage these student resources as they engage in making sense of the phenomena.

**Do Now / Engage**

Students engage with the phenomenon of the day by:

* Analyzing patterns in data about the phenomenon
* Generating an initial explanation for the phenomenon
* Drawing a model of the phenomenon and describing their model

Lesson phase recommendations:

* Students need to be able to work independently on a task
* Good tasks elicit problematic ideas of students
* Introduces the phenomenon for day
* Engages students in a science and engineering practice, not just with science facts
* Emphasizes “productive struggle” over success and correct answers

**Lesson Overview**

* Students share their responses to the “Do Now,” *or* the teacher highlights different responses of students, and
* Teacher presents the CLO for the day and the question students will answer for the day, and
* Teacher presents what students will do that day, or
* Teacher and/or students discuss how answering the day’s question through the activities might help them address the design challenge or answer the driving question for the entire sequence of lessons

Lesson phase recommendations:

* Students can explain at end what the question they are answering for the day and how the activity will help them answer it
* Students can explain how the day’s activity helps answer the lesson sequence design challenge or driving question

**Main Body of Lesson / Explore**

Students engage in science and engineering practices to answer the day’s question.

Lesson phase recommendations:

* Tasks should engage students in some aspect of science practices as described in Chapter 3 of the *Framework*
* If activities take up too much time that there is not sufficient time for discussion at the end, then the 3D quality of lesson is likely to be lost in which students connect practices back to disciplinary core ideas and crosscutting concepts.

**Explain**

Students construct an explanation for the day’s phenomenon that makes use of the focal component of the Disciplinary Core Idea. They may do so through a combination of individual, small group work, and class discussion.

Lesson phase recommendations:

* Work that generates some student product can be used formatively to assess student understanding.
* Whole class discussion can help move students toward a consensus explanation for the phenomenon that includes a component of the DCI that is addressed in the lesson.

**Lesson Close: Extend and Evaluate**

Students *synthesize what they have learned* about the overall driving question for the sequence or design challenge, identifying how the day’s activity helps them answer the question or solve the challenge.

Students *identify questions* that:

* They still need to answer, to answer the driving question or solve the design challenge
* That the evidence they generated, analyzed, or critiqued could not answer

In addition, students make *connections to crosscutting concepts* by discussing:

* how the phenomenon relates to other phenomena they’ve studied before, or
* how the disciplinary core ideas relate to other disciplinary core ideas they have studied

Lesson phase recommendations:

* Making a public record of what’s been learned about the driving question or design challenge an adding to it each day can help lessons build over time.
* Having students make connections, rather than providing them to teachers, can help them build a more robust understanding.