

Storyline Plan Step 1

Standard Alignment and Teacher Background

Grade level and Big Idea from the OKScienceFramework With your grade level team, select a Unit Bundle (Big Idea) to focus on for this project. Grade 3 Grade 4 Grade 5 Grade 6 Identify the grade level and selected Big Idea below.	
OAS-S Performance Expectations (PEs) associated with the Big Idea. Copy and paste the entire Performance Expectations associated with the Big Idea here.	
Next, identify the elements from the foundation boxes for the PE(s). Do not just list the DCI or CCC. Be sure to include all descriptive text as well. You may copy and paste these directly from the OAS-S.	
Disciplinary Core Ideas (DCI)	Cross-cutting Concepts (CCC)
Science and Engineering Practices (SEP)	
BRAINSTORM <i>What ideas from the curriculum and the OAS-S/NGSS seem the most central? What are the most important pieces that your students need to understand to make sense of the big idea, and why? Review each section of your Grade Level Bundle Analysis page (Performance Expectations, “In a Nutshell”, Student and Teacher Actions, Key Concepts, and Misconceptions) Consider the science content described throughout.</i> <i>Brainstorm the most prominent ideas that are mentioned in the text and write each idea on a notecard (no more than 12). Use the notecards to construct a concept map of your Big Idea. What sub-topics seem the most important? What sub-topics seem to lead to another one? Arrange the sub-topics in a way that helps you see the content storyline of your Big Idea.</i> <i>For each DCI you identified above, watch the teacher-information videos found on the Wonder of Science website and review the vertical progression in your NSTA quick guide. How do the relevant big ideas progress through the grade levels? In other words, how does what students learn in this unit support them as they move towards high school science?</i>	
Teacher Background and Detailed Content Explanation	
What are some potential student misconceptions about your Big Idea and sub topics that you will need to be sure to pay attention to and address throughout your Storyline? (Hint: some of these are presented in the Bundled Analysis Sheet)	
BRAINSTORM	

Watch this 3-minute [video](#) about Phenomena and connections to NGSS. Then, find the Unit Progression for your chosen Grade Level Unit from the links below. Review the Launch Task: Phenomena Ideas.

[Grade 3](#) [Grade 4](#) [Grade 5](#) [Grade 6](#)

Visit sites such as [The Wonder of Science](#) or [Phenomena for NGSS](#) and identify alternative actual, observable event or set of events that students can come to a deep understanding of over a period of days related to the Big Idea. Identify at least one alternative phenomenon, but no more than five.

What about the big ideas will students see as having meaning in their own lives? What experiences and events have students had that make the concept/big idea meaningful? Where do students encounter the ideas/science phenomena of your big idea?

Evaluate and describe the phenomena examples provided and generate a driving question for the phenomenon related to the Big Idea.

Select an anchoring phenomenon. You may choose from the examples provided on OKSci or from the alternate phenomena you identified through additional brainstorming.

What is your driving question or problem for your unit and phenomena? In other words, what question should your students want to answer or problem they should want to solve? Note: The OKSci Unit Progressions provide “driving questions” for the unit, but your driving questions should be directly related to the phenomenon AND the Big Idea (science content).

Why did you choose the phenomenon and driving question that you did? Explain why you think this is the best choice for you as the teacher and the students as learners.

Storyline Detailed Learning Plan Template

Essential Question What is an essential question for the lesson? In other words, what question would your students want to answer while engaging in the planned learning experiences?

Learning Plan

Use as many or as few rows as you need to describe the instructional and student tasks used to introduce the phenomena with the above considerations.

You must also include the ways in which students can provide evidence of learning (“Assessment Opportunities”) and how you will scaffold for students who are ELL and with additional special learning needs (SPED and GT).

The detailed learning plan should be written so that another teacher could pick it up and teach it as you imagine it.

Task Indicate what is the main objective of each task	Grouping How will you arrange the class? In one learning task, students may move in and out of class formations. Mark all that apply.	Instructional and Student Tasks These should be written clearly and detailed enough that another teacher could follow them easily. Include all Teacher Questions and color them red. Your questions should probe students to allow them to explain their thinking and elicit understanding. Avoid closed/single response questions.	Assessment Opportunities What are both the formal and <i>informal</i> opportunities students have to demonstrate their new understanding? <i>Scaffolding tools for ELL and students with special learning needs. How will support students who need help or extension for each task?</i>
Introduce ☐ Elicit ideas ☐ Explore ☐ Explain ☐	☐ Individual ☐ Pairs ☐ Small Groups ☐ Whole Class		(Replace this text with assessment opportunities) (Replace this text with scaffolding tools/actions)
Introduce ☐ Elicit ideas ☐ Explore ☐ Explain ☐	☐ Individual ☐ Pairs ☐ Small Groups ☐ Whole Class		(Replace this text with assessment opportunities) (Replace this text with scaffolding tools/actions)
Introduce ☐ Elicit ideas ☐ Explore ☐ Explain ☐	☐ Individual ☐ Pairs ☐ Small Groups ☐ Whole Class		(Replace this text with assessment opportunities) (Replace this text with scaffolding tools/actions)
Introduce ☐ Elicit ideas ☐ Explore ☐ Explain ☐	☐ Individual ☐ Pairs ☐ Small Groups ☐ Whole Class		(Replace this text with assessment opportunities) (Replace this text with scaffolding tools/actions)
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Introduce ☐ Elicit ideas ☐ Explore ☐ Explain ☐	☐ Individual ☐ Pairs ☐ Small Groups ☐ Whole Class		(Replace this text with assessment opportunities) (Replace this text with scaffolding tools/actions)

Introduce ☐ Elicit ideas ☐ Explore ☐ Explain ☐	☐ Individual ☐ Pairs ☐ Small Groups ☐ Whole Class		(Replace this text with assessment opportunities) <i>(Replace this text with scaffolding tools/actions)</i>
Introduce ☐ Elicit ideas ☐ Explore ☐ Explain ☐	☐ Individual ☐ Pairs ☐ Small Groups ☐ Whole Class		(Replace this text with assessment opportunities) <i>(Replace this text with scaffolding tools/actions)</i>
Introduce ☐ Elicit ideas ☐ Explore ☐ Explain ☐	☐ Individual ☐ Pairs ☐ Small Groups ☐ Whole Class		(Replace this text with assessment opportunities) <i>(Replace this text with scaffolding tools/actions)</i>

Evidence of Student Learning What evidence will students provide to demonstrate their level of understanding?
Evaluation of Student Learning What criteria will you use to determine what your students have learned?

Storyline Step 2

Summative Assessment Task

BRAINSTORM <i>Review the evidence statements for the unit Performance Expectations you identified above. Using the evidence statements, your understanding of the content, and the scientific explanation for the phenomena/answer to the driving question.</i> <i>How will you evaluate student evidence of learning? (e.g. rubric, checklist, etc) Be sure to use the evidence statements, performance expectations, and accurate scientific explanations while you construct your evaluation tool.</i>
Summative Assessment Task
Summative Assessment Evaluation

Step 3

A sequence of learning tasks

Review the 3-Dimensional Narratives provided in the OKSci Instructional Resources for your Unit and consider the scientific explanation for your phenomenon and driving question you developed in Step 1. In the spaces below, describe 3-4 lesson sequences that will support students as they engage in your driving question. You are encouraged to use the OKSci Instructional Resources as inspiration, however the tasks you describe should relate to your chosen phenomenon and driving question. Note: Use only the amount of spaces you need.

[Grade 3](#) [Grade 4](#) [Grade 5](#) [Grade 6](#)

Lesson Sequence 1 Author:

Essential Question for the Lesson	Supporting Phenomenon	Science & Engineering Practices	What students will figure out (DCI & CCC)	Learning Goal

Description of Lesson

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How does this lesson sequence support students as they construct an evidence-based explanation of the Driving Question of the unit?

Review the learning goal for the lesson sequence. Using the evidence statements for your storyline Performance Expectations, your understanding of the content, and the scientific explanation for the supporting phenomena/answer to the essential question for the lesson sequence: *What is an assessment task that students should be able to complete at the end of this lesson sequence?*

How will you evaluate student evidence of learning? (e.g. rubric, checklist, etc) Construct a draft of your evaluation tool below. Be sure to use the evidence statements, performance expectations, and accurate scientific explanations while you construct your evaluation tool.

Lesson Sequence 2 Author:

Essential Question for the Lesson	Supporting Phenomenon	Science & Engineering Practices	What students will figure out (DCI & CCC)	Learning Goal

Description of Lesson

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How does this lesson sequence support students as they construct an evidence-based explanation of the Driving Question of the unit?				
Review the learning goal for the lesson sequence. Using the evidence statements for your storyline Performance Expectations, your understanding of the content, and the scientific explanation for the supporting phenomena/answer to the essential question for the lesson sequence: <i>What is an assessment task that students should be able to complete at the end of this lesson sequence?</i>				
How will you evaluate student evidence of learning? (e.g. rubric, checklist, etc) Construct a draft of your evaluation tool below. Be sure to use the evidence statements, performance expectations, and accurate scientific explanations while you construct your evaluation tool.				
Lesson Sequence 3 Author:				
Essential Question for the Lesson	Supporting Phenomenon	Science & Engineering Practices	What students will figure out (DCI & CCC)	Learning Goal
Description of Lesson				
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How does this lesson sequence support students as they construct an evidence-based explanation of the Driving Question of the unit?				
Review the learning goal for the lesson sequence. Using the evidence statements for your storyline Performance Expectations, your understanding of the content, and the scientific explanation for the supporting phenomena/answer to the essential question for the lesson sequence: <i>What is an assessment task that students should be able to complete at the end of this lesson sequence?</i>				
How will you evaluate student evidence of learning? (e.g. rubric, checklist, etc) Construct a draft of your evaluation tool below. Be sure to use the evidence statements, performance expectations, and accurate scientific explanations while you construct your evaluation tool.				

Lesson Sequence 4 Author:				
Essential Question for the Lesson	Supporting Phenomenon	Science & Engineering Practices	What students will figure out (DCI & CCC)	Learning Goal
Description of Lesson				
How does this lesson sequence support students as they construct an evidence-based explanation of the Driving Question of the unit?				
Review the learning goal for the lesson sequence. Using the evidence statements for your storyline Performance Expectations, your understanding of the content, and the scientific explanation for the supporting phenomena/answer to the essential question for the lesson sequence: <i>What is an assessment task that students should be able to complete at the end of this lesson sequence?</i>				
How will you evaluate student evidence of learning? (e.g. rubric, checklist, etc) Construct a draft of your evaluation tool below. Be sure to use the evidence statements, performance expectations, and accurate scientific explanations while you construct your evaluation tool.				