

## ASET Phenomenon Tool



Name or ID:

Lesson/Unit Title:

Intended grade:

**Statement of Phenomenon:**

**Essential Questions you would use to prompt your students:**

The NGSS defined phenomena as “observable events that students can use the three dimensions to explain or make sense of” (NGSS Lead States, 2013)			
Grounding Phenomenon- Describe the real world phenomenon that you want your students to be able to explain (in part or fully) by the end of the lesson or unit:		Essential Question(s) - key essential question(s) you will pose to your students (or guide your students to pose) about the phenomenon:	
	Does the phenomenon meet this criterion?	Yes/No	How is the criterion met or why is it not met?
<b>It is a Phenomenon if it</b>	Is grounded in the natural and/or human-affected world (including agriculture, engineering, medicine)		
	Describes an event or process that is observable directly or indirectly, through human senses or instrumentation		
<b>It is an Anchoring phenomenon if it</b>	Describes a specific or contextualized event or process so that the students’ explanation addresses a particular situation		
	Linking multiple scientific concepts is required to generate a complete explanation (segment/unit level)		
	Elicits explanations that are aligned to NGSS DCI learning goals		
	Has an explanation that can reasonably be developed from: <ul style="list-style-type: none"> <li>• a series of investigations that utilize the scientific practices (SEPs) and crosscutting concepts (CCCs) (unit level)</li> <li>• an investigation that utilizes the scientific practice(s) (SEPs) and crosscutting concepts (CCCs) (lesson level)</li> </ul>		
<b>Implementation is student centered if it</b>	Is relevant and interesting, building on students’ funds of knowledge		
	Is presented in a way that clearly provides or elicits an image to students (picture or mental imagery) of an event or process that is observable, either directly or indirectly.		

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	<b>Grounding Phenomenon-</b> Describe the real world phenomenon that you want your students to be able to explain (in part or fully) by the end of the lesson or unit:	<b>Essential Question(s)</b> - key essential question(s) you will pose to your students (or guide your students to pose) about the phenomenon:
	<b>Criterion</b>	<b>Suggested questions to ask yourself in evaluating phenomenon</b>
<b>It is a Phenomenon if it</b>	Is grounded in the natural and/or human-affected world (including agriculture, engineering, medicine)	Where can it be observed in the natural world?
	Describes an event or process that is observable directly or indirectly, through human senses or instrumentation	How will students observe it (picture, video clip, real thing, etc.)?
<b>It is an Anchoring phenomenon if it</b>	Describes a specific or contextualized event or process so that the students’ explanation addresses a particular situation	What is the specific example of a general process?
	Linking multiple scientific concepts is required to generate a complete explanation (segment/unit level)	List the scientific concepts necessary for students to explain the phenomenon.
	Elicits explanations that are aligned to NGSS DCI learning goals	What are the DCI(s) that align with this phenomenon?
	Has an explanation that can reasonably be developed from: <ul style="list-style-type: none"> <li>• a series of investigations that utilize the scientific practices (SEPs) and crosscutting concepts (CCCs) (unit level)</li> <li>• an investigation that utilizes the scientific practice(s) (SEPs) and crosscutting concepts (CCCs) (lesson level)</li> </ul>	How will students explore this phenomenon?
<b>Implementation is student centered if it</b>	Is relevant and interesting, building on students’ funds of knowledge	How does it build upon every day or family experiences? Why will students find it relevant and interesting?
	Is presented in a way that clearly provides or elicits an image to students (picture or mental imagery) of an event or process that is observable, either directly or indirectly.	How will it be presented to students?