

Three Dimensional Learning Plan: **HS-PS3-6 (NY Standard**

Grade Level: **High School**

Title		Phenomenon/Problem	
Designed by		Course(s)	
Brief Learning Description			


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Desired Results			
Performance Expectation(s)			
HS-PS3-6: Ohm's Law Analyze data to support the claim that Ohm's Law describes the mathematical relationship among the potential difference, current, and resistance of an electric circuit.			
Summative Assessment			
Designing a Toy Assessment		Key Evidence Statement	Assessment Screening Tool
What skills (practices) will students need to learn?	What thinking concepts will students need to learn?	What science concepts will students need to learn?	What relevant or local phenomenon can be used to teach these concepts?
<i>Type Here</i>	<i>Type Here</i>	<i>Type Here</i>	<i>Type Here</i>



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Activity 1			
 Phenomenon or Problem	 What will they do? The three dimensions woven together into a single learning performance.	 Why is this important? How does this activity help build understanding of the anchoring phenomenon.	 How will they do it? Graphic organizers, protocols, scaffolds, labs, mini-lesson, student discourse, etc.
Type Here	Type Here	Type Here	Type Here
 Formative Assessment What information are you collecting to know that they met the target?			

Activity 2			
 Phenomenon or Problem	 What will they do? The three dimensions woven together into a single learning performance.	 Why is this important? How does this activity help build understanding of the anchoring phenomenon.	 How will they do it? Graphic organizers, protocols, scaffolds, labs, mini-lesson, student discourse, etc.
 Formative Assessment What information are you collecting to know that they met the target?			

Activity 3			
 Phenomenon or Problem	 What will they do? The three dimensions woven together into a single learning performance.	 Why is this important? How does this activity help build understanding of the anchoring phenomenon.	 How will they do it? Graphic organizers, protocols, scaffolds, labs, mini-lesson, student discourse, etc.
 Formative Assessment What information are you collecting to know that they met the target?			

Activity 4			
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 Phenomenon or Problem	 What will they do? The three dimensions woven together into a single learning performance.	 Why is this important? How does this activity help build understanding of the anchoring phenomenon.	 How will they do it? Graphic organizers, protocols, scaffolds, labs, mini-lesson, student discourse, etc.
 Formative Assessment What information are you collecting to know that they met the target?			

Activity 5			
 Phenomenon or Problem	 What will they do? The three dimensions woven together into a single learning performance.	 Why is this important? How does this activity help build understanding of the anchoring phenomenon.	 How will they do it? Graphic organizers, protocols, scaffolds, labs, mini-lesson, student discourse, etc.
 Formative Assessment What information are you collecting to know that they met the target?			
 Summative Assessment What information are you collecting to know that they met the target?			



Materials / Resources

Vocabulary

Ohm's Law

Current

Electric circuit

- Series

- Parallel

- Direct current (DC)

Potential difference

Current

Resistance

Patterns

Energy and Matter

Mini-Lessons

[Patterns Level 7 - Causal Patterns at Varying Scale](#)

[Patterns Level 7 - Causal Patterns at Varying Scale Thinking Slides](#)

[Energy Level 6 - Conservation of Energy](#)

[Energy Level 6 - Conservation of Energy Thinking Slides](#)

Graphic Organizers

[Phenomena Observation Graphic Organizer](#)

[Questioning Graphic Organizer](#)

[Modeling Graphic Organizer](#)

[Planning an Investigation Organizer - Experimental](#)

[Planning an Investigation Organizer - Observational](#)

[Investigation Evidence Organizer](#)

[Engaging in Argumentation Organizer](#)

Differentiation / Modifications



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Assessment Screening Tool

[Back to Learning Plan](#)

HS-PS3-6: Ohm's Law

Designing a Toy Assessment

Evidence Statement

Reflections: Type Here			
	No	Partial	Yes
1. The assessment contains a phenomenon (science) or a problem (engineering)			
2. The prompts match the Science and Engineering Practice (SEP) and engage students in sense making.			
3. The stimuli have multiple and sufficient information needed to utilize the SEP . (e.g. multiple data sets to analyze)			
4. The prompts elicit observable understanding of the Disciplinary Core Idea (DCI) .			
5. The prompts explicitly mention the Crosscutting Concept (CCC) .			
6. The prompts include language (i.e. bullets) from grade appropriate progressions. (SEP) (DCI) (CCC)			
7. The graphic organizers provide space for the observable features (e.g. 1, 2, 3...) in the evidence statement. (e.g. claim, evidence and reasoning)			
8. The entire assessment contains information that is scientifically accurate and properly attributed. (e.g. don't make up data and include the source)			
9. The prompts point in the direction of explaining a phenomenon (science) or designing a solution (engineering).			
10. The phenomenon or problem is authentic, interesting, and requires students to figure something out.			
11. The phenomenon or problem is novel to show the transfer of knowledge. (i.e. not in the unit)			



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