

Table 3a: Modeling Curriculum Activities in Unit Three, in Order of the NYSS

Activity title and number	New York State Standard	Description
Standard 1		
7) Worksheet 2	M1.1	Abstract representation to communicate mathematically Deductive and inductive reasoning to reach mathematical conclusion Explain physical relevance of a graph of real world data Develop explanation of natural phenomena Design experiment to investigate relationship between physical phenomena Develop, predict, and explain proposed relationships for physical phenomena Carry out research to test theories charts, equations Reach a conclusion on whether your data supports your explanation of the experiment Discuss relationships with class Revise if necessary
5) Lab 3: Ohm's Law	M2.1	
7) Worksheet 2	M2.1	
1) Lab: What is happening in a wire?	M3.1	
5) Lab 3: Ohm's Law	M3.1	
7) Worksheet 2	M3.1	
5) Lab 3: Ohm's Law	S1.1	
6) Lab 4: Series and Parallel Circuits	S1.1	
3) Lab 2: Charge Distribution and Potential Difference	S2.1	
5) Lab 3: Ohm's Law	S2.1	
6) Lab 4: Series and Parallel Circuits	S2.1	
3) Lab 2: Charge Distribution and Potential Difference	S2.3	
5) Lab 3: Ohm's Law	S2.3	
6) Lab 4: Series and Parallel Circuits	S2.3	
1) Lab: What is happening in a wire?	S2.4	
6) Lab 4: Series and Parallel Circuits	S2.4	
1) Lab: What is happening in a wire?	S3.1	
2) Worksheet 1: Fields and Potential Difference in Circuits	S3.1	
3) Lab 2: Charge Distribution and Potential Difference	S3.1	
5) Lab 3: Ohm's Law	S3.1	
6) Lab 4: Series and Parallel Circuits	S3.1	
5) Lab 3: Ohm's Law	S3.3	
6) Lab 4: Series and Parallel Circuits	S3.3	
3) Lab 2: Charge Distribution and Potential Difference	S3.4	
5) Lab 3: Ohm's Law	S3.4	
6) Lab 4: Series and Parallel Circuits	S3.4	
Standard 2		
1) Lab: What is happening in a wire?	1.1	Understand features of word processors, spreadsheets and database software
1) Lab: What is happening in a wire?	1.2	
Standard 4		
9) Worksheet 3	4.1iv	Determine the factors that affect the period of a pendulum Use measurements to determine the resistance of a circuit element Observe / explain energy conservation Recognize conversions among different forms of energy in real world devices Measure current and voltage in a circuit Measure current and voltage in a circuit Interpret graphs of voltage versus current Measure and compare resistance of conductors of various lengths and cross-sectional area Construct simple series and parallel circuits
1) Lab: What is happening in a wire?	4.1ix	
10) Unit Review	4.1ix	
11) Unit Test	4.1ix	
2) Worksheet 1: Fields and Potential Difference in Circuits	4.1ix	
3) Lab 2: Charge Distribution and Potential Difference	4.1ix	
5) Lab 3: Ohm's Law	4.1ix	
6) Lab 4: Series and Parallel Circuits	4.1ix	
8) Quiz 2	4.1ix	
1) Lab: What is happening in a wire?	4.1v	
3) Lab 2: Charge Distribution and Potential Difference	4.1v	
1) Lab: What is happening in a wire?	4.1vi	
11) Unit Test	4.1vi	
3) Lab 2: Charge Distribution and Potential Difference	4.1vi	
5) Lab 3: Ohm's Law	4.1vi	
6) Lab 4: Series and Parallel Circuits	4.1vi	
7) Worksheet 2	4.1vi	
8) Quiz 2	4.1vi	
9) Worksheet 3	4.1vi	
11) Unit Test	4.1vii	
5) Lab 3: Ohm's Law	4.1vii	
7) Worksheet 2	4.1vii	
8) Quiz 2	4.1vii	
9) Worksheet 3	4.1vii	
10) Unit Review	4.1viii	
11) Unit Test	4.1viii	
6) Lab 4: Series and Parallel Circuits	4.1viii	
8) Quiz 2	4.1viii	
9) Worksheet 3	4.1viii	
11) Unit Test	4.1x	
5) Lab 3: Ohm's Law	4.1x	
7) Worksheet 2	4.1x	
1) Lab: What is happening in a wire?	4.1xi	
10) Unit Review	4.1xi	
2) Worksheet 1: Fields and Potential Difference in Circuits	4.1xi	
3) Lab 2: Charge Distribution and Potential Difference	4.1xi	
1) Lab: What is happening in a wire?	4.1xii	
11) Unit Test	4.1xii	
3) Lab 2: Charge Distribution and Potential Difference	4.1xii	
5) Lab 3: Ohm's Law	4.1xii	
6) Lab 4: Series and Parallel Circuits	4.1xii	
8) Quiz 2	4.1xii	
9) Worksheet 3	4.1xii	

10) Unit Review	4.1xiii	Draw and interpret circuit diagrams which include voltmeters and ammeters
5) Lab 3: Ohm's Law	4.1xiii	
6) Lab 4: Series and Parallel Circuits	4.1xiii	
10) Unit Review	4.1xiv	
11) Unit Test	4.1xiv	
3) Lab 2: Charge Distribution and Potential Difference	4.1xiv	
4) Quiz: Voltage and Current	4.1xiv	
5) Lab 3: Ohm's Law	4.1xiv	
7) Worksheet 2	4.1xiv	
9) Worksheet 3	4.1xiv	
2) Worksheet 1: Fields and Potential Difference in Circuits	5.1v	Draw force diagrams to scale Sketch the path of projectiles
2) Worksheet 1: Fields and Potential Difference in Circuits	5.1vii	
	Standard 6	
3) Lab 2: Charge Distribution and Potential Difference	2.1	Revise a model to make an improved representation of a system
5) Lab 3: Ohm's Law	2.1	
6) Lab 4: Series and Parallel Circuits	2.1	Use observations of behavior of a system to develop a model
1) Lab: What is happening in a wire?	2.2	
3) Lab 2: Charge Distribution and Potential Difference	2.2	
5) Lab 3: Ohm's Law	2.2	Use mathematical and physical models to represent real world systems
6) Lab 4: Series and Parallel Circuits	2.2	
3) Lab 2: Charge Distribution and Potential Difference	2.3	
5) Lab 3: Ohm's Law	2.3	compare predictions with observations to validate or reject predictions
6) Lab 4: Series and Parallel Circuits	2.3	
3) Lab 2: Charge Distribution and Potential Difference	2.4	
5) Lab 3: Ohm's Law	2.4	Predict systems behavior based on mathematical models and graphs Search for trends in data
6) Lab 4: Series and Parallel Circuits	2.4	
5) Lab 3: Ohm's Law	5.1	
9) Worksheet 3	5.1	Determine optimal solutions that can be solved quantitatively
3) Lab 2: Charge Distribution and Potential Difference	5.2	
5) Lab 3: Ohm's Law	5.2	
3) Lab 2: Charge Distribution and Potential Difference	6	