



## Course: Honors Physics

We hope that you, your families and loved ones are well! During the COVID-19 pandemic school closure, we will be doing our best to provide you engaging activities that will enrich your understanding of Physics. During term 4, you will primarily be exploring forces and energy, specifically as they relate to electricity.

Goal for this week
<p><b>Learning Objectives:</b> Students will be able to ...</p> <ol style="list-style-type: none"> <li>1. understand resistivity and conductivity as they relate to Ohm's Law.</li> <li>2. use Ohm's law equation to solve problems related to voltage, resistance and current.</li> </ol> <p style="text-align: right;">(2016 MA STE Standard: HS-PS2-5)</p>
<p><b>Literacy Objectives:</b></p> <ol style="list-style-type: none"> <li>1. Reading: to understand a concept and construct meaning</li> <li>2. Writing: to generate a response to what one has read, viewed, or heard</li> <li>3. Reasoning: to compute, interpret and explain numbers</li> </ol> <p style="text-align: right;"><a href="https://www.bpsma.org/schools/brockton-high-school/about-us/mission-literacy-charts">https://www.bpsma.org/schools/brockton-high-school/about-us/mission-literacy-charts</a></p>

<p><b>Lesson:</b></p> <ul style="list-style-type: none"> <li>• <i>Your science teacher will be in contact to clarify expectations (like when and how to submit your work for credit) for your class.</i></li> <li>• Click on the links to view the resources.</li> </ul>	
<p><b>WHY THIS MATTERS</b></p>	
<p>"Ohm's Law" describes the mathematical relationship between voltage, current and resistance in electricity and is, therefore, critical for designing circuits. It has practical applications in everyday life in circuit breakers, dimmer switches and speed controls. Recently, it has been applied to baking in a process known as <a href="#">Ohmic heating</a>. Check out how this process saves time and energy!</p>	
<p><b>Topic: Electric Force and Field</b></p>	
Day	What to do ...
Monday	Memorial Day
Tuesday	Watch and take notes on <a href="#">introduction to circuits and Ohm's law</a> (9 min) and <a href="#">resistivity and conductivity</a> (13min) videos. Read the <a href="#">current, resistance, and resistivity review article</a> and answer the questions in the article (10 min).
Wednesday	Use the PhET Simulation <a href="#">for Battery-Resistor Circuit</a> and complete the <a href="#">worksheet</a> .
Thursday	Read and take notes on <a href="#">Electric potential difference and Ohm's law review</a> (15 min). Do problems and answer the 4 questions on <a href="#">How to calculate voltage, current, and resistance using ohm's law</a> (15 min).
Friday	Solve all the problems and answer all the questions on <a href="#">ohm's law, current, voltage, and resistance</a> (30min).

# WEEKLY REMOTE LESSONS

May 25-29, 2020

BROCKTON HIGH SCHOOL  
SCIENCE DEPARTMENT



## **Additional Support**

### **Email:**

- Please reach out to your science teacher with specific questions about the lesson.

### **Office Hours:**

- Here is a list of the [science teachers' office hours](#). Please email your teacher to set up meeting times.

### **Other questions:**

- Science Department Head  
Dr. David Mangus  
[davidmangus@bpsma.org](mailto:davidmangus@bpsma.org)