



## Course: CP/CPA 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 work and energy. This will include kinetic and potential energy and momentum.

Goal for this week
<p><b>Learning Objectives:</b> Students will be able to ...</p> <ol style="list-style-type: none"> <li>1. understand the how the concept of “work” is applied in physics.</li> <li>2. calculate the amount “work” done.</li> <li>3. calculate potential and kinetic energy.</li> </ol> <p style="text-align: right;">(2016 MA STE Standard: HS-PS2)</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>

### Lesson:

- *Your science teacher will be in contact to clarify expectations (like when and how to submit your work for credit) for your class.*

### WHY THIS MATTERS

We do work every day. Physics helps us understand that when work is done in a system, that means the energy of the system changes. For example, this allows us to measure how much energy we need to perform a task, like shooting a [basketball](#). Our health is partially based around the amount of energy (food) we consume against the amount of energy used (physical work or activity). This is how apps on your phone estimate how much energy (calories you burn) when you go for a walk. Check out how GE is working to develop a machine that will [measure the number of calories in a plate of food](#).

### Topic: Work and Energy

Day	What to do ...
Monday	Read about <a href="#">WORK</a> . Answer the 4 questions on that page and study the animation (20 min).
Tuesday	Read <a href="#">WORK (II)</a> ; Calculating Work done by forces and answer the first 8 questions on this page (30 min).
Wednesday	Watch the Khan Academy <a href="#">video on WORK</a> and answer the 5 of the last 10 questions from the <a href="#">WORK (II)</a> page (25 min).
Thursday	Read about <a href="#">Potential Energy</a> , complete the QUICK QUIZ and answer the 3 questions on that page (30 min).
Friday	Read about <a href="#">Kinetic Energy</a> and answer the 4 questions on that page (30 min).

# WEEKLY REMOTE LESSONS

May 11-15, 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)