

**Course: Honors Chemistry**

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 Chemistry. During term 4, you will primarily be exploring matter and its interactions, including types of chemical reactions, stoichiometry, energy transfer and properties of solutions.

Goal for this week**Learning Objectives:**

Students will be able to ...

1. identify types of chemical reactions.
2. balance chemical reactions.
3. predict the products of a chemical reaction.

(2016 MA STE Standard: HS-PS1-2)

Literacy Objectives:

1. Reading: to understand a concept and construct meaning
2. Writing: to take notes
3. Writing: to generate a response to what one has read, viewed, or heard
4. Reasoning: to identify a pattern, explain a pattern, and/or make a prediction based on a pattern

(<https://www.bpsma.org/schools/brockton-high-school/about-us/mission-literacy-charts>)

Lesson:

Chemistry Café: Chemical Reactions

- See the page(s) below for a complete description of what to do and the resources you will need.
- ***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

Balancing chemical reactions is important because it helps you to understand exactly how the atoms get rearranged in a reaction. This will also help you understand the Law of Conservation of Mass. You don't want to accidentally mix chemicals together! [It can have deadly consequences!](#) Chemists work to design drugs to help people with disease. Have you thought about a career as a [process chemist](#)?

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



Chemistry Café

Topic: Chemical Reactions

Assignments to do:

Click on the link to view the resource ...

1. Go through [PowerPoint](#) and take notes.
2. Look at the [solubility rules](#) and the [activity series](#) and have access to them.
3. [Complete the Pre-Balancing Practice.](#)
4. [Complete the Basic Formula Structure with 3 Terms.](#)
5. [Complete the Jitterbugs Classifying Chemical Reactions sheet.](#)
6. Watch: [How to Write Complete Ionic Equations and Net Ionic Equations.](#)
Be sure to take notes on the video.
7. Choose 3 assignments from the café below to complete:
You should select 1 appetizer, 1 main course, and 1 dessert

Appetizer

[Complete the Balancing Chemical Equations PHET simulation](#)

[Complete the Simulation-Balancing Chemical Reactions Activity.](#)

[Advanced Formula Structure with 5 Terms.](#)

Main Course

[Types of Chemical Reactions Cut and Paste for Review.](#)

Watch [Bill Nye the Science Guy Chemical Reactions](#) Video and complete the [worksheet](#).

Watch: [30 stunning science experiments you've never seen before](#) and [complete the questions](#).

Dessert

[Complete Net Ionic Equations Understanding It Visually Worksheet.](#)

[Complete PLIX simulation for Net Ionic Equations](#)

[Complete the Net Ionic Equations worksheet.](#)

Recommended Pacing

Monday: Pre-work assignments, **Tuesday:** Finish pre-work assignments, **Wednesday:** Complete an appetizer, **Thursday:** Complete a main course, **Friday:** Complete a dessert