

Mini Lesson 1

1. **Grade:** 5th
2. **Curriculum Topic:** Geometry - AR.Math.Content.5.G.A.2:
 - Represent real world and mathematical problems by graphing points in the first quadrant and on the non-negative x- and y-axes of the coordinate plane
 - Interpret coordinate values of points in the context of the situation
3. **Tools:** Beebot and Desmos Online Coordinate Plane
4. **Synopsis:** Students will use Beebot and Desmos to begin learning about the coordinate plane. Students will already have background knowledge of X Values, Y Values, and how to plot points. I will print out 3-4 big coordinate planes and tape them to the floor. Students will break off into 3-4 groups plotting points with Beebot. They will code Beebot and plot every turn he makes. After they have created points on their paper, they will get on their computers or iPads and visit <https://www.desmos.com/calculator> to plot them online!

Mini Lesson 2

1. **Grade:** 5th
2. **Curriculum Topic:** Shape Properties: AR.Math.Content.5.G.B.4: Classify two dimensional figures in a hierarchy based on properties.
3. **Tools:** Osmo-Tangrams and PowerPoint
4. **Synopsis:** I will introduce two dimensional figures to students with a PowerPoint. The PowerPoint will go through the different properties of each figures. After the PowerPoint students will break off into groups to play with the Osmo-Tangrams. This will allow students to get further practice when working with tangrams.

Mini Lesson 3

1. **Grade:** 5th
2. **Curriculum Topic:** 5-PS1-4 Conduct an investigation to determine whether the mixing of two or more substances results in new substances.
3. **Tools:** YouTube and Google Doc
4. **Synopsis:** Students will explore the world of chemical reactions. I will start the lesson by showing a short video on YouTube to gather their interest. The video will consist of mixing different substances and observing their reactions and results. After the video, students will work on a Google Doc in partners of small groups. The Google Doc I provide for them will have multiple links to different sites about mixing substances and different kinds of reactions. Students will explore links to online laboratories where they chose what substances they want to mix. This lesson would be good to start talking about mixing substances, and all of the different kinds of mixtures and substances. Or, as an assessment tool to see what students learned.

Mini Lesson 4

1. **Grade:** 5th
2. **Curriculum Topic:** AR.Math.Content.5.MD.A.1
 - Convert among different-sized standard measurement units within the metric system For example: Convert 5 cm to 0.05 m.
 - Convert among different-sized standard measurement units within the customary system For example: Convert 1 ½ ft to 18 in.
 - Use these conversions in solving multi-step, real world problems
3. **Tools:** Excel and Precipitation Website
(<https://www.weather.gov/marfc/DailyPrecipitation>)
4. **Synopsis:** Students will work together to convert units using precipitation data. Students will gather data from different cities or states that they choose, as long as what they choose is consistent throughout. They will then use Excel to put this data in a chart. Students can then use formulas and functions to convert customary and metric units. This will give students practice converting because they will have to know the conversion factors to enter the functions. Having all of the different units in one chart also allows students to visibly see the difference in the way the numbers look even though it is the same quantity just different units.

Mini Lesson 5

1. **Grade:** 6th
2. **Curriculum Topic:** Earth's Systems 6-ESS2-4 Develop a model to describe the cycling of water through Earth's systems driven by energy from the sun and the force of gravity
3. **Tools:** Padlet and Kahoot
4. **Synopsis:** Students will explore the Padlet that I created over the Water Cycle. This Padlet will contain readings online, diagrams to look at, a Water Cycle song, Water Cycle activities on BrainPOP, and there is a blank water Cycle diagram students will turn in when finished. This Padlet will help students further their knowledge of the Water Cycle and all key vocabulary terms associated with it. After students are done exploring the Padlet, we will play a Kahoot game! This is just further practice of key vocabulary terms and ideas.