

AGENDAS FOR THE WEEK: 2/16-2/20

	MONDAY 10:41 – 11:32 2:41-3:32	TUESDAY 10:41 – 11:32 2:41-3:32	WEDNESDAY 10:41 – 11:32 2:41-3:32	THURSDAY 10:41 – 11:32 2:41-3:32	FRIDAY 10:35-11:23 1:49-2:36
	Objective(s): SWBAT PD Day	Objective(s): SWBAT develop and justify a procedure for balancing chemical equations using the law of conservation of matter.	Objective(s): SWBAT determine whether an equation is balanced and correctly adjust coefficients to balance it.	Objective(s): SWBAT determine whether an equation is balanced and correctly adjust coefficients to balance it.	Objective(s): SWBAT identify evidence of chemical change and collect observations to classify reaction types.
P	Engage	Engage Students will be reintroduced the rules of counting atoms that were discussed on the thursday prior using an interactive whiteboard activity. The students will be doing a popcorn style QnA where they will be telling me how many atoms are in a molecular formula and “competing” against each other	Engage Students will open with a vocabulary overview from the anchor chart they did prior. They will be asked to write definitions in their own words and/or draw a representation of the idea.	Engage Students will choose a representative from their group to come up to the board to complete or contribute ideas to solving a few of the problems they did yesterday.	Engage Students will turn and talk about what some differences are in a video that we watched about 2 different chemical reactions. One will be a combustion reaction and the other will be a smaller, gentler reaction that produces different evidence of the chemical reaction.

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Explore

Explain

Elaborate

Explore

The exploration will be done gradual-release style, where the students will see what I do, work with me, then try it on their own. Initially, we will discuss how our laws of conservation of matter connect to our counting atoms notes, then the students will use group discussions and turn and talk to discuss how these two ideas can be used to balance equations. There will be an example of a blank unbalanced equation on the board.

Explain

The students will work together to come up with a theory for how to go about solving the balanced equation which will go onto an anchor chart that the teacher will facilitate. The students will come up with the rules, while the teacher guides the formal wording on the anchor chart, assisting where needed.

Elaborate

Students will use the anchor chart and their discussions to begin working through the problems. The teacher will use the anchor chart to do one, and the student suggestions will update it, then the students will do some in their groups, then we'll talk about it, then the students will do the remainder in their groups with the teacher circulating to provide guidance.

Explore

Students will begin the worksheet meant to develop skills in counting atoms and balancing equations for stoichiometry later in the unit. They will work as a group to tackle increasingly difficult problems with the teacher helping through any sticking points that the students may encounter.

Explain

At a certain point in the lesson, the teacher will pause the work and ask students to demonstrate on the board to encourage engagement. Students will explain the reasoning behind each step while classmates evaluate whether atoms are conserved. The teacher will guide discussion by organizing student strategies into a clear set of balancing rules and addressing misconceptions (changing subscripts, ignoring parentheses, unequal atom counts).

Elaborate

Students will apply the rules they developed to a new set of equations that include polyatomic ions and multi-step balancing. They will work in pairs and must justify their answers before moving to the next problem. Early finishers will check another group's work and provide feedback based on conservation of atoms.

Explore

Students will work on finishing the worksheet from yesterday, since we did not reach the polyatomic ion steps. For early finishers, there will be an additional worksheet with more balancing equation and counting atoms questions, with the better score of the two assignments being the one that is graded.

Explain

Once all the students finish the first assignment, there will be a short formative assessment on a whiteboard that the students will do, most likely in the form of an error analysis.

Elaborate

Once the formative assessment is done, the students will work on that third sheet until the end of class. The exit ticket will be the same format, just a different question than below.

Explore

Students will begin working their way through stations after a safety briefing. They will be asked to write a prediction, do the experiment, then write down observations from the lab. The stations will be a synthesis reaction of magnesium oxide, single replacement reaction will be aluminum and copper 2 chloride that will precipitate copper into solution, the combustion reaction will be marshmallows that they can eat, the decomposition will be sodium bicarbonate decomposing into sodium carbonate, and mixing potassium iodide and lead nitrate for a double replacement reaction.

Explain

Elaborate

<p style="text-align: center; font-size: 2em; font-weight: bold;">N</p>	<p>Evaluate and Summary</p>	<p>Evaluate and Summary Evaluation will be done formatively through the responses of the chart and completion of the notes. There will be no summative assessment. Summary will be a review of the anchor chart.</p>	<p>Evaluate and Summary Students will complete an individual exit ticket. The exit ticket will be for them to 1) A student balanced this equation: $\text{H}_2 + \text{O}_2 \rightarrow \text{H}_2\text{O}_2$ Are they correct? Explain why or why not. And 2) Rate your confidence 1-5. What step confuses you the most?</p>	<p>Evaluate and Summary Students will complete an individual exit ticket. The exit ticket will be for them to 1) A student balanced this equation: $\text{H}_2 + \text{O}_2 \rightarrow \text{H}_2\text{O}_2$ Are they correct? Explain why or why not. And 2) Rate your confidence 1-5. What step confuses you the most?</p>	<p>Evaluate and Summary</p>
<p>Resources:</p>		<p> Balancing Chemical equat...  Warm-up Questions sprin...</p>	<p> balancing chemical reacti...  Warm-up Questions sprin...</p>	<p> Warm-up Questions s...</p>	<p> Types of chemical reaction...  Warm-up Questions spring...</p>