



Activity: Exploding Snowman!

Focus: STE(A)M

Materials: Sandwich-sized ziploc bags, Vinegar, Baking soda, Paper Towels, Black Sharpies, Blue Food Dye (optional), A teaspoon measure, A cup measure, nose out of Orange Construction paper, Orange Felt, or Orange Sharpie, & Glue (if orange construction paper or orange felt is used)

Grade Range: PreK-2nd

Time: 20 minutes

Synopsis: Students will watch a video containing 20 different Christmas songs. Through the use of emojis, students will have to guess what song is being described in 20 seconds. After the time is up, mentors will reveal the song and see if students guessed it correctly.

Instructions:

1. Mentors will begin the lesson by sharing with students that today they are making their very own exploding snowmen.
2. Go around to each table of students and hand them the ziploc bags, black sharpie markers and orange noses. Once the students have received these materials, tell them that they get to draw the face of their snowman on the front of the ziploc bag.
3. Once the students have finished drawing on their faces, mentors will go around and put 3 teaspoons of baking soda into a paper towel. Then, put the paper towel into the ziploc bag. ***NOTE: For a bigger reaction, use more baking soda.***
4. Next, mentors will quickly put 1 to 2 cups of distilled white vinegar into the ziploc bag and then zip it up. This is when you can add in the optional blue food dye if desired.
5. Take a minute to allow students to watch the chemical reaction in the bag occur. As time progresses, the snowman will get bigger and bigger until it explodes. ***NOTE: If you don't want it to explode to reduce what you need to clean up, have a mentor nearby with each group to open the bag up before it explodes.***
6. Once the explosion experiment has occurred, tell students that the reason that the bag becomes inflated is because of carbon dioxide. State that the as baking soda (known as sodium bicarbonate,) mixes with vinegar, carbon dioxide is created. The bag then begins to blow up with carbon dioxide and then when the pressure is too much, it explodes!