

Acquisition Lesson Plan Magical Science Day 3-Alka-Seltzer

Name	Teacher/Planner	Subject	Magical Science	Date	Monday
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9:30 Supervisor checks in students and takes attendance. Puts names in "Random Drawing" bucket for prizes later in week.

9:30 – 9:45 Breakfast Snack

Essential Question: What

9:45 – 10:00 Activating Strategy/Arrival Activity:

Teacher read aloud of the book "All About Matter" by Mari Schuh. Throughout the book, stop and talk about the different forms of matter mentioned in the book. Tie in the forms of matter we observed in our first 2 lessons this week. Explain that today's lesson will focus on a specific form of matter (gas) and how it can be created/used. For example, today's experiments will create a gas that will be used to make a rocket and blow up a balloon.

10:00 – 11:00 Teaching Strategies:

Start off with dropping an Alka-Seltzer tablet in a cup of water. Observe what happens and ask kids to make observations. Maybe even hold their hand above the cup to see if they notice anything. Explain that there is a reaction taking place between some of the chemicals that make up the Alka-Seltzer. The water is loosening up the tablet, allowing the chemicals more room to react with each other. The reaction is also causing a gas to be formed which explains why we hear the fizzing. Explain that today, we will be exploring something we can do with that gas created from the reaction: create a rocket. We will also be exploring how we can blow up a balloon using the gas created from another chemical reaction between vinegar and baking soda. *Note, both of these activities would be best completed outside if possible. This could be done whole group, or in smaller breakout groups.

Activity 1:

Materials:

- an M & M container or a Fuji film canister
- water
- Alka-Seltzer tablets
- optional: seltzer water or soda

Step 1: Pour the liquid into the container.

Step 2: Add the Alka-Seltzer tablets. Experiment with adding them whole or in pieces, adding 1 or 2 or 3 at a time, shaking or not shaking the container. Then set it down with the cap on the ground and quickly move away.

Watch it pop! Our pop rocket easily flew 8 to 10 feet in the air.

Repeat using different amounts of liquid or different liquid to see if it affects the height.

The second activity will involve mixing together vinegar and baking soda which will cause another reaction producing gas.

Activity 2: Bubbles, Gas and Balloons

Materials:

- A small, strong plastic bottle (20 oz / approximately 600 mL)
- A medium-sized round balloon
- Vinegar
- Baking soda
- A funnel

STEP 1: Pour vinegar into the small bottle until it is about half an inch deep.

STEP 2: Using a funnel, pour two teaspoons of baking soda into the neck of a balloon.

STEP 3: Stretch the neck of the balloon over the neck of the bottle, being careful not to let the baking soda out of the balloon.

STEP 4: Lift the balloon so that the baking soda runs into the vinegar. Shake the bottle and see what happens. The chemical reaction in this experiment should create enough carbon dioxide to inflate a balloon

Repeat again or in smaller groups if there are enough supplies. See if they can come up with any ways to make it blow up faster? (change the amounts of vinegar/baking soda?)

If there is time remaining, have students draw a picture of what happened during each of the experiments. Older kids could also write a few sentences describing what happened as the gasses were created.

Formative Assessments: Classroom helpers sit near children during reading aloud or partner reading to help them attend to story. Questions posed throughout the activity will serve as a way to gauge student participation and understanding.

11:00 – Summarizing: Have the students think back about the different “Magical Science” activities that were completed this week. Have them talk with a partner about which was their favorite and why. Share a few thoughts. Wrap up the discussion on solid/liquid/gas by asking them to revisit each of the essential questions for the week and share their responses to each.

11:15 Bathroom break and hand washing

Wash hands and enjoy lunch together. Teachers and adult leaders model appropriate table manners and encourage children to taste foods. Children and adults throw their own trash away.

11:50 - After lunch, prior to dismissal:

Culminating Activity: Invite children to choose a used book to take home and encourage them to do some reading tonight.