Objective

By the end of this lesson, Emily will learn how to make popping boba balls to add a fun twist to her drinks. She will understand the science behind the process and enjoy a delicious, customized beverage with her homemade boba.

Materials and Prep

- Fruit juice (any flavor)
- Sodium alginate (can be found at specialty food stores or online)
- Calcium chloride (also available at specialty food stores or online)
- Water
- A small bowl
- A whisk or spoon for mixing
- A dropper or syringe
- A strainer
- A container to hold the boba balls

Before starting the lesson, make sure to gather all materials and read through the process. Understanding the basic science of spherification will enhance the experience!

Activities

- **Introduction to Spherification:**

  Start by explaining what spherification is and how it relates to making popping boba. Discuss how sodium alginate and calcium chloride react together to create the boba texture.

- **Mixing the Juice:**

  Have Emily choose her favorite fruit juice and mix it with sodium alginate in a bowl. Guide her to whisk it until it’s fully combined. This will be the flavor for her boba!

- **Creating the Boba Balls:**

  Using a dropper or syringe, let Emily drop the juice mixture into a calcium chloride solution. Watch as the juice forms into boba balls! This is the fun part!

- **Tasting Time:**

  Once the boba balls are ready, strain them and rinse them in water. Let Emily taste her creation by adding the boba to her favorite drink. Discuss the texture and flavor together!

Talking Points

- "Spherification is a cool technique that lets us create little flavor-filled balls! Have you ever seen those in bubble tea?"
- "Did you know that sodium alginate comes from seaweed? It’s what helps our juice turn into boba!"
- "When we drop the juice into the calcium chloride solution, a chemical reaction happens. It’s like magic, but it’s really science!"
- "What do you think will happen if we use different juices? Let's experiment and find out!"
- "Tasting our boba is the best part! How do you like the texture? Does it pop in your mouth?"
- "You can try making boba with different flavors next time. What flavors do you want to

experiment with?"