

Tea Party Filtration

Companion Text: The Jakry Kids: Curiosity Shop, by Lin Jakary & illustrated by Ryan Olson

Subject Area & Grade Level: Science, 1st Grade

Materials: Tea bags, paper cups. Optional: iron filings, sawdust, magnets, woodchips

Objectives

After this lesson, students will be able to:

- Describe filtration as a process of separating elements of a mixture
- Demonstrate filtration with a tea bag and hot water

Staging Activity

Read the story once through without stopping. Then, return to pages 16 and 19, and revisit the images of the tea party. Ask students if they have ever been to a tea party, or ever made a cup of tea. Ask, “What is tea?” and explain that it is a plant, and that when we make tea, we soak the crushed leaves of the plant in hot water.

Core Activity

Distribute a tea bag to each student, and ask them to describe it. See if anyone uses the word “filter” to describe the tea bag. Lead students to notice that the crushed tea leaves are inside of a bag made from a special kind of material that lets some things pass through but not others. Explain that this kind of bag is called a filter. Filtering something is a way to physically separate it into parts. In the case of tea, very small particles of tea come through the tea bag and spread out in the hot water, leaving the bulk of the leaves in the bag, which the tea drinker then throws away.

Open a tea bag at the front of the room to show students the crushed tea inside. Demonstrate filtration at the front of the room by steeping a new tea bag in hot water in see-through container of some sort, such as a glass mug. Before you add the tea bag to the hot water, ask students to predict what will happen. Ask, “What color will the water become? How long will it take to notice any color change?”

Give each student a paper cup and have them fill it with warm water from the faucet or the bathroom. Allow students to make their own cup of tea, watching as the tea particles seep through the filter. Depending on your rules regarding food and drink, you could allow students to sample their cups of tea, and even make a tea party out of the occasion by serving crackers, bread, or other snacks with the tea.

Extension

Allow students to practice filtering other mixtures, such as iron filings mixed in sawdust (using magnets to filter), or woodchips floating in water (using sieves to filter).

