

Swiss Chard Smoothies

Instructions and ingredient quantities are written for a class of approximately 20 children.



Ingredients

4 cups local Swiss chard
1 bag frozen strawberries (approx. 10 oz.)
1 bag frozen blueberries or peaches (approx. 10 oz.)
6 bananas
16 oz. container plain yogurt
2 cups of milk or apple juice
Honey (optional)

Before you start cooking:

Set up the students' tables for two groups for the cooking class. Wash the tables/desks and lay tablecloths over them. Put a cutting board and plastic knife at each child's place. Divide the bananas and yogurt evenly among the tables (put yogurt in small bowls). Store the frozen fruit in a cooler with ice so that it stays hard and frozen.

Materials

At Each Student Cooking Station

Cutting boards or paper plates (one per child)
Plastic knives (one per child)
Tablecloths (one per table)
2 large mixing bowls
Mixing spoons (one per table)
1-cup measuring cups (one per table)

At the Teacher's Station

Blender (and extension cord if necessary)
Ice
Honey
Paper cups (one for each child)
Large spoon
Milk or apple juice

At Sink Area and for Clean Up

Sponge, dish soap, paper towels



Steps with the Students

Keep it clean

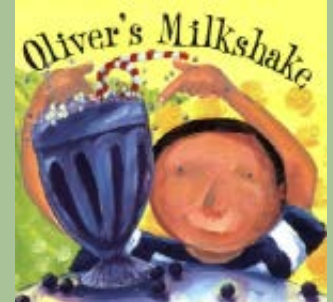
Ask students to wash their hands. Review proper hand washing techniques: Wet hands with clean water, add soap, rub hands together vigorously and scrub thoroughly. Rub hands with soap for at least 20 seconds (sing the ABC's), rinse with clean water.

Introduce the Ingredients

Write the list of ingredients on the board. Show students the ingredients in their whole form and point out which part we eat. This is your opportunity to tell the story of the ingredients and to create buy-in from the kids to try them. If possible, purchase local rainbow Swiss chard. Explain that in the winter time, many farmers grow Swiss chard in a greenhouse. Show photographs of a greenhouse (also called a hoop house) and explain how a greenhouse works (captures the sun's heat, protects plants from wind and precipitation). Ask students how they stay warm in the winter, prompting them to talk about structures (houses, schools, etc) that keep them warm and protect them from wind and snow. Show students a photograph or story about the farmer who grew the Swiss chard (most farmers have great websites).

Literature Connections

Oliver's Milkshake
by Vivian French



Curriculum Connections

Use hands-on cooking classes as a mechanism for teaching curriculum concepts. A few ideas for activities to accompany the Swiss Chard smoothie recipe include:

1. When reviewing the ingredients, ask students if the smoothie ingredients are a liquid, solid, or gas. How do they know? Once the smoothies are blended, ask again if the smoothies are a liquid, solid, or gas. How did the solid ingredients become a liquid? (Show students the "liquefy" button on the blender). Are there other times when a liquid becomes a solid or a solid becomes a liquid?
2. Read *Oliver's Milkshake*. Ask the students to identify the ingredients of his milkshake. Write the ingredients on the board and create a recipe for Oliver's Milkshake.
3. Measure the temperature of the finished smoothie. Ask the students to make predictions ahead of time. Whose guess is the closest to the actual temperature?

Curriculum Alignment

Find a list of which Common Core State Standards and NC Essential Standards this lesson plan aligns with on the lesson plan page at www.growing-minds.org.

Introduce the Equipment

Show students the tools they will use to make their Swiss chard smoothies. Demonstrate the proper way to hold and use the tools. Emphasize that students should never use a blender without help from an adult.

What's going to happen? Review the Steps with Students

Go over each of the steps of making the recipe. **Write the steps on the board.**

Step 1. Wash the Swiss chard.

Step 2. Using a plastic knife or your fingers, remove the stems from the Swiss chard leaves. Cut or tear the leaves into smaller pieces. Place the leaves in a large bowl.

Step 3. Peel the bananas. Using the plastic knives, cut the bananas into chunks. Place them in the large bowl with the Swiss chard.

Step 4. Measure one cup of yogurt and add it to the large bowl.

Step 5. As a group, decide which frozen fruit to add to the smoothie. Add two cups of fruit to the large bowl.

Step 6. Take the bowl of ingredients to the teacher's station.

Step 7. Add the ingredients to the blender with one cup milk or juice. Blend well.

Step 8. Taste it! Add honey and/or ice if needed and reblend.

Get Them Cooking!

Wash and Prepare the Ingredients

Choose several children from each table to wash the Swiss chard leaves by running them under water (with a teacher's assistant or volunteer's help). There should be one small Swiss chard leaf for each child (if your leaves are large, give each child half of a leaf).

Cut and Tear

Ask students to return to their seats. Demonstrate how to remove the stem from a Swiss chard leaf and prompt students to do the same. Ask student to tear or cut the leaves into smaller pieces and put the pieces into their large bowl. Next, ask several students to peel the bananas. Give remaining children a portion of banana and ask them to use their plastic knives to cut the banana into chunks and add them to the large bowl with the swiss chard.

Choose and Add the Fruit and Yogurt

Guide the students in working together as a group to decide which frozen fruit to add. Talk with students about how to make a decision. Talk about the importance of listening and asking one another questions. Introduce the idea of voting. Once the students agree on which fruit to add, prompt them to take turns measuring and adding a total of two cups of frozen fruit to their large bowl and one cup of yogurt.

Blend it!

As they complete the process of choosing and measuring their ingredients, prompt the groups of students to come to the teachers station one group at a time. Place the ingredients into the blender. Choose two students to each add 1/2 cup of milk. or juice. Blend well.



Last Steps

Taste it!

Pour a small amount of smoothie into paper cups for the children. Prompt them to taste the smoothie. Would they like to add honey or ice? If so add and reblend.

Clean Up

Kids can help in the clean up process by putting their cups in the trash and helping to pick up debris on the floor.

Did you know. . .

People have many names for Swiss chard including silver-beet, Roman kale, and strawberry spinach.

This tall leafy vegetable is a part of the goosefoot family -- named because the leaves resemble a goose's foot. Other members are beets and spinach.



Chard can be harvested while the leaves are young and tender or when they are larger and have tougher stems. You can harvest from the plant many times and it will grow new leaves.

More Greens Activities

Compare and Contrast

Bring in several different types of greens (lettuce, spinach, collard greens, kale, Swiss chard, etc.). Guide students in comparing the different greens. Chart the different characteristics of the greens. Which is the biggest/smallest? Which leaves are tough and hardy? Which are delicate? Which are dark green, which are light green?

Paint with Greens

Prompt students to look closely at one Swiss chard leaf. How is the leaf similar/different to a tree leaf? Ask students to draw the outline and veins of the leaf on a thick piece of white paper with a light colored crayon. Give the students watercolor paints and prompt them to fill in their leaf and the boarder until their paper is full of color. The crayon will resist the paint, standing out on the page.