

LESSON 4

GINGERBREAD MUFFINS AND WINTER FRUIT PUDDING

GINGERBREAD MUFFINS

Serving Size: 12 servings

Ingredients:

- 1 ½ cups flour (NUT FREE)
- 2 tsp. baking powder
- 1/3 cup olive oil
- 1 large banana, mashed
- ½ cup milk
- Zest of 1 orange
- 3 tbsp. honey
- 1/3 cup molasses
- 1 tsp. vanilla
- ½ tsp. ground ginger
- ½ tsp cinnamon
- 12 muffin liners

PREP BEFORE CLASS:

Preheat oven to 400 degrees F.

Directions:

1. Have students assist in measuring out flour, cinnamon, ginger, baking powder & salt into a bowl. Stir to combine.
2. Have students measure and add olive oil, honey, mashed banana, molasses, milk, and vanilla to separate bowl and mix to combine.
3. Add wet ingredients to dry and combine.
4. Fill muffin tins about 2/3 of the way full.
5. Bake for 15-20 minutes.
6. Let cool and enjoy



DID YOU KNOW?

Apples and pears are both in season during the winter.

WINTER FRUIT PUDDING

Makes 12 servings, 1/3 cup per student

Ingredients:

- 2 medium apples
- 2 medium pears (ripe)
- 1 medium orange
- 1 medium avocado (ripe)
- 1 cup unsweetened applesauce
- 1 cup water
- 1/2 tsp. cinnamon
- 1 sleeve graham crackers (NUT FREE)
- 12 small plastic cups for serving

PREP BEFORE CLASS:

Wash apples and pears. Cut apples and pears in half and remove core, then cut in 10 pieces total. Peel orange. Cut avocado in half and remove pit.

Directions:

1. Pass each student a piece of apple or pear and have them chop it.
 2. Have several students separate orange segments. Have the others scoop the avocado out of its skin.
 3. Collect all fruit into a large blender bowl.
 4. Ask students to measure the water, applesauce, cinnamon into the blender.
 5. Puree until very smooth (1-2 minutes)
 6. Pour pudding from blender, dividing evenly
 7. Pass out graham crackers. Students may crush and sprinkle on top of pudding, if desired.
- Enjoy!



DID YOU KNOW?

Cinnamon is antioxidant packed, which means it helps protect your body from cellular damage!

BAKING SCIENCE: EXPLORING THE MAGIC OF BAKING POWDER AND BAKING SODA

SHOPPING LIST

Ingredients to buy:

- 2 medium apples
- 2 medium pears (ripe)
- 1 medium orange
- 1 medium avocado (ripe)
- 1 large banana, mashed
- 1 cup unsweetened applesauce (2 x 4oz cups)
- 3 graham crackers (optional) (NUT FREE)
- 1 ½ cups flour (NUT FREE)
- 2 tsp. baking powder
- 1/3 cup molasses
- ½ tsp. ground ginger
- ½ cup milk
- 12 muffin liners (check if in the bin)

Ingredients in the bin:


- water
- olive oil
- vanilla
- cinnamon
- honey
- 12 small plastic cups for serving
- 12 muffin liners

OBJECTIVE



Students will understand the differences between baking powder and baking soda, and the scientific principles behind their use in baking.

INTRODUCTION

 5-7 min

- Complete Start of Class Checklist (see beginning of the curriculum): arrive early, set up for the class, take attendance, review allergies
- Begin by asking students if they know the differences between baking powder and baking soda.
- Write their answers on the whiteboard.
- Explain that baking powder and baking soda are two common ingredients used in baking, but they have different properties and uses. Discuss each. After you complete the discussion, identify which one are we using today?

BAKING POWDER VS. BAKING SODA

Baking powder and baking soda are both leavening agents that help baked goods rise, but they have different properties and uses.

Baking soda, also known as sodium bicarbonate, is a base. When combined with an acid (such as vinegar or lemon juice) and a liquid, it creates carbon dioxide gas, which causes baked goods to rise. Baking powder is a mixture of baking soda, an acid (usually cream of tartar), and a starch (such as cornstarch). It also creates carbon dioxide gas when combined with a liquid, but it does not require an acid to activate. Baking powder is often used in recipes that do not contain acidic ingredients.

When using baking soda or baking powder in a recipe, it's important to use the right amount and to mix them thoroughly with the other ingredients. Using too much or too little can affect the texture and flavor of the finished product.

BAKING SCIENCE: EXPLORING THE MAGIC OF BAKING POWDER AND BAKING SODA

STAR INGREDIENT: GINGER

- Ginger is a flowering plant that originated in Southeast Asia and has been used for thousands of years for its medicinal and culinary properties.
- Ginger can be used fresh, dried, or powdered, and is a versatile ingredient in many recipes, from savory dishes to baked goods and desserts.
- Ginger is a natural remedy for nausea
- Gingerbread houses and gingerbread men are popular holiday treats that are made with ginger, along with other spices like cinnamon and nutmeg.
- In Japan, pickled ginger is served with sushi to cleanse the palate between bites.
- The pungent flavor of ginger comes from a compound called gingerol, which also gives ginger its spicy aroma.


DEVELOPMENT

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- Explain that baking powder and baking soda are two common ingredients used in baking, but they have different properties and uses. Discuss each. After you complete the discussion, identify which one are we using today? Why?

COOKING PRO

- Chefs measure ingredients carefully to ensure their recipes turn out perfectly. They often use measuring cups, spoons, and scales to get accurate measurements. Especially when it comes to baking. Why?
- Measuring ingredients accurately is crucial in baking because it is a science that requires precise measurements and ratios of ingredients to create a consistent and delicious end product. Baking involves chemical reactions that occur between ingredients such as flour, sugar, and leavening agents, and even a slight variation in the quantity of any one ingredient can alter the outcome of the recipe.
- In contrast, cooking is often more forgiving and allows for more improvisation with ingredients and measurements. In many cases, you can adjust the seasoning or add more ingredients to balance out the flavors as you go. However, this flexibility is not always possible in baking, and even a small deviation from the recipe can lead to a failed or subpar result.
- For these reasons, measuring ingredients accurately is critical in baking and can make a significant difference in the final product's texture, taste, and overall success.

END OF CLASS CHECKLIST

 10 min

- Follow End of Class Checklist (see beginning of the curriculum) and complete Taste Test, Thumbs Up Test, Clean Up & Dismissal