

Lesson 4.1: Solutions - Repurposing Old Fruits and Veggies

Common Core Standards

Next Generation Science Standards

NGSS.K.2.ETS1.1

Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.

Target audience:

Grades 2-5

Objectives:

*Present to students alternative uses for older fruits and vegetables that have gone unused

*Teach students how vegetable scraps can be used for other purposes

Key Words:

reuse, repurpose, food, scraps, fruits, vegetables

Resources:

Bowl

Hot plate

Pan/skillet

Spatula

Plates

Forks

Butter knives or plastic knives

Paper & markers

Vegetable scrap

Freezer

Refer to recipes for other resources

Activities:

Introduction

Start the discussion by asking students if they would eat a bruised and overripe banana. Tell students that bananas are one of the most thrown away fruits in American households. This occurs because the lifetime of a banana in its perfect yellow condition is relatively short. However, there are many uses for overripe bananas. Examples of these uses include baking purposes and smoothies.

Show students vegetable scraps such as carrot peels, celery ends, and onion skin. Ask students to propose ideas of how these vegetable scrap could be used.

Teach students about how these vegetable parts can be used to make broths or how they can be repurposed as animal feed or composted, rather than thrown away.

Cooking Activity

Below are two recipes that you can use with your students to demonstrate how a ripe banana can be repurposed. These recipes can easily be done in a classroom.

Activity Option 1 - Fried Honey Banana

Ingredients - for each pair of students

- Half Ripe Banana
- 1tbs Honey
- 1tbs Water
- Coconut oil to cook
- Cinnamon to taste

1. Have students work in pairs. Each pair should grab half a banana that has already been cut, a fork, and one knife. Each pair should be instructed to cut bananas into quarter-inch thick slices.
2. Mix honey and water in a bowl.
3. Once students have sliced their bananas, they should then carefully dip each piece into the mixture so that it becomes coated and then place their slices on a plate.
4. The instructor will then cook the slices of bananas in a pan over a hotplate or stove in the coconut oil (enough to coat the pan). This can be done while students are doing other class activities or on break. Let the slices cook on each side for 1-2 minutes.
5. Once all the slices are cooked, students can sprinkle cinnamon on their slices and enjoy their repurposed banana.

Activity Option 2 - Chocolate Banana Creamsicles

Ingredients - for each group of 2-3 students

1 large over-ripened banana
1 pinch of salt
1 & 1/2 tbsp cocoa powder
1/3 cup coconut milk
1 tsp vanilla extract
Dixie cups
Popsicle sticks

1. Divide the students into groups. The students must first mash their bananas with a fork.
2. The next step is to mix in salt and cocoa powder.
3. Once the salt and cocoa gets thoroughly mixed, incorporate coconut milk and vanilla extract.
4. Use small dixie cups as molds. Pour mixture into dixie cups and place popsicle sticks in the middle. Freeze for 4 hours and they'll be ready!

Recipe Book Activity

To encourage students to be more involved in cooking their own food, we recommend you to use this lesson to encourage students to start a recipe book. After taking part in preparing the recipes in

activity 1 or 2, ask students to create an entry in their recipe book. Help them by suggesting a format. Ask them to first list the ingredients they used, then ask them to write down the steps. It is up to you to determine how you want these books to be put together. We suggest using crafting paper that is hole punched. Hold the book together using ribbon or yarn, threaded through the punched holes. The students can design their own cover page and draw or add photos if they'd like.

Future Activities/Homework:

- ❖ (Advanced students) - Ask students to research other recipes that could be used to repurpose other produce that otherwise may be discarded because it appears too old to eat
- ❖ Have students continue using their recipe booklets. Assignments can include asking students to observe and cook with their family members and then record the recipe.