

5th Grade Fall Potato Harvest

Date: October

Description: Harvest, wash, scrub, cut up, prepare and cook potatoes and serve to other students at lunch. Divide the class into 3 groups, each doing 3 rotations, 15 minutes each: 1) digging potatoes, and giving them an initial rinse to remove the majority of the dirt; 2) scrubbing potatoes at cafeteria sink; 3) cutting and seasoning potatoes at cafeteria table. This activity works best with at least three parent volunteers.

Objective: Educate students about the nutritional benefits of potatoes, their versatility, and their history. Assist students to prepare and serve school grown oven roasted potatoes.

Background:

Potatoes are from the Andes Mountains of South America, as high in the mountains as 15,000 feet. They were called papas by the Incas and had dark purple skin and yellow centers. They were first cultivated as long as 7000 years ago by farmers in the Andes. The Conquistadors came across them in the 1500s and brought them back to Europe. Not until the 1700-1800s were they very popular, when Ireland became dependent on them. Potatoes are a member of the nightshade family and its leaves are, indeed, poisonous. A potato left too long in the light will begin to turn green. The green skin contains a substance called solanine which can cause the potato to taste bitter and even cause illness in humans. Don't eat the green parts of a potato plant, including green potatoes. Good potatoes do, however, contain great nutritional value. Their popularity is due mostly to the fact that they are inexpensive, tasty and have enough vitamins and minerals for the human body to subsist, though it is recommended that potatoes not make up one's entire diet.

Preparation:

- Coordinate best date for teachers and Cafeteria well in advance. Review the lunch schedule. May want to avoid Wednesday, early release day.
- Gather for the garden: gloves, shovels/trowels, hose/water key (Sharpstein), milk crates.
- Gather for cafeteria sink: scrub brushes,
- Gather for cafeteria cooking station: towels, cutting boards, knives, deep rectangular mixing pans, baking sheets, spatulas, spoons, spices wax paper. Ingredients: oil, extra potatoes, salt, pepper, curry powder, parmesan, garlic powder.
- Camera
- Obtain milk crates from kitchen staff to hold and wash potatoes outside and carry inside. Be sure to clean and return.
- Talk with teachers about station rotations and class rotations. How much time is available for each station? Will teachers meet at specified time and place with their class? Have teachers arrive with pre-divided class (3 groups).
- Divide the garden potato bed into portions to match the number of classes. 3 sections if all 3 classes are participating to ensure not all potatoes are dug by the first class.

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Action:

Station # 1 Garden – 10-12 minutes

- Recap garden rules (all tools must be kept below the waist, keep feet on the path, treat all creatures, plants and each other with respect).
- Discuss potato history: where did they come from? What did they look like? Why it's important to maintain a variety of species. A variety of species might have prevented the great Irish potato famine, as some would have been resistant to blight.
- Show students the AREA that they will be digging in. Demonstrate using the shovel safely and pointed straight down.
- Half the students can dig while the other half can pull up and harvest the potatoes. Then take them to the lawn area and wash the majority of the dirt off with the hose.
- Transition to the next station and deliver rinsed potatoes to the cafeteria where they will get a scrubbing.

Station # 2 Cafeteria kitchen Sink – 10 minutes

- Once in the kitchen all kids need to wash hands.
- Discuss the benefits of eating potatoes: nutrition, easy to grow, good flavor, versatility, inexpensive.
- Scrub potatoes. Make sure that all the dirt is removed. Separate out green skinned potatoes. If needed, cut away the green first.
- Designate a student as dirt checker to ensure they are clean.
- Deliver the shiny, no green, potatoes to the table where they are cutting and cooking.

Station #3 Cafeteria table – cutting and cooking center – 10 minutes.

- Half of the students cut and half cook, then switch. Start with a description of safety with knives (knuckles, not fingertips, forward) and show the cutting students how you want the potato cut (in half lengthwise FIRST for a flat side to prevent rolling, then perpendicular to make pieces about ¼” thick. Station leader may need to make the first cut to make a flat edge for safe cutting.
- Place cut potatoes in a deep metal rectangular kitchen pan and mix with the other ingredients. Each cooking student can add an ingredient and another can mix, following their choice of the recipes below.
- dump them out onto the big metal sheet pans lined with wax paper. The kitchen chef can show you where the station leader can put them in the oven (425°). First ones need to be in the oven by around 10:00am.
- Have teachers choose a few students/class to serve potatoes if able.
- The potatoes cook at around 425F for about 30-40 minutes. Once out of the oven, transfer to deeper serving pans and place in the holding ovens to keep warm. If students come to the cafeteria to help serve the potatoes, have cafeteria staff choose the best place for a wheeled cart, near the ketchup. **Potato servers need to wash hands, wear gloves and aprons and stay in one place – no traveling.**

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Recipe #1

8 potatoes
1 tsp garlic powder
½ tsp pepper
½ cup oil
2 Tbsp grated parmesan
½ tsp paprika
salt, sprinkled to taste

Recipe #2

8 potatoes
1 tsp salt
1 tsp pepper
¾ tsp curry powder
½ cup oil
1 tsp salt
1 tsp pepper

Recipe #3

8 potatoes
1 tsp salt
1 tsp pepper
½ cup oil
Other herbs like
rosemary, oregano,
thyme, etc.

-For all recipes, cut potatoes in half, then quarter, then slice to make pieces ¼ inch thick, place in bowl with oil and spice mix, and stir to cover potatoes. Line them out on wax paper covered baking sheets and bake at 425 degrees for 30-40 minutes.

Nutritional Value of Potatoes- could cut out.

Percentage of Recommended Daily Allowances provided by one average potato:

Vitamin C: 45%
Potassium: 46%
Magnesium: 12%
Thiamin: 10%
Niacin: 8%
Vitamin B6: 14%
Folacin: 14%
Phosphorous: 6%
Iron: 9%
Calcium: 4%