

4th Grade Planting Potatoes – Geography, History, Nutrition

Date: Anytime April to early May

Objective: Students will learn about the history of potato domestication and nutritional value of potatoes while learning how to plant potatoes into the garden

Preparation:

- Gather power point presentation, scale, potato planting handout (last page of power point)
- Prepare the garden area where potatoes will be planted
- Gather potato seed – at least 4 varieties, shovels, trowels, watering can

Action:

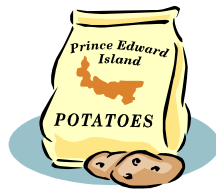
1. Introduce yourself and briefly describe what you will be doing.
2. Ask student what they know about potatoes. Ask students to think about where potatoes come from, whether they are good for you and how many different types there are. Have them share with their neighbor for 15 seconds.
3. Ask anyone to share what they know about potatoes
4. Show the powerpoint presentation about potatoes
5. Bring 3 groups of 8 students to the garden at a time to plant potatoes. The remaining students can read two books about potatoes and complete a map of potato history worksheet.

In the Garden:

6. Talk about how to grow potatoes: To get a new potato plant, plant a piece of potato (2-3 oz) with an eye plus a share of the center core of a potato. This will grow into a new plant.
7. Have students work in pairs. One in the pair will select a location and dig a hole; the second of the pair will select a type of potato and cut it to the approximate size and weight (they can weigh it if you have a scale). Then the pair will plant it together. Dig a fairly deep, 10-12” hole, placing the potato piece into it and sprinkling dirt on top (not filling in the hole). The hole will slowly fill in with watering and wind, but the deep hole prevents the need to hill the potatoes. Alternatively, plant seed in 5-6 inch hole and as the plant grows larger push dirt up around the plant to provide cover for potato production.



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Potatoes or Papas – Some History

- Where are potatoes 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.
- When were they discovered? They were first cultivated as long as 7000 years ago. The Conquistadors came across them in the 1500s and brought them back to Europe. But not until the 1700/1800s were they very popular and Ireland came to depend on them.
- Who first cultivated the potatoes? The first rugged farmers of the Andes Mountains.
- Guess What - 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 however, have great nutritional value!
- Why are potatoes common throughout the world today? They are cheap, tasty and have enough vitamins and minerals for the human body to subsist.

Papas – Nutrition!

Percentage of Recommended Daily Allowances provided by one average potato:

Vitamin C - 45% - Sailors in the 1500/1600s who ate potatoes didn't suffer from scurvy

Thiamin 10%

Niacin 8%

Vitamin B6 14%

Folacin 14%

Panthenic Acid 6%

Phosphorous 6%

Magnesium 12%

Iron 9%

