

Title: Pass the Potatoes Please!

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Level: Grades K-2

Subjects: English language arts, Science

AZ Academic Standards: K/1/2.RL.3, K.RL.5, K/1/2.RL.7, K/1/2.SL.1, K/1.L.4, K.W.1, SC00-S1C1-01, SC00-S1C4-01, SC00-S4C3-01/2, SC01-S1C2-04, SC01-S1C4-01, SC01-S4C3-01, SC02-S1C2-02/3/4, SC02-S1C4-01

Brief Description: After sharing background knowledge about potatoes and local potato growers, teacher will read a story about potatoes and watch a video about how potatoes are turned into potato chips. Students will discuss what they've learned and then have the opportunity to taste test different flavors of potato chips and share their opinion on their favorite flavor.

Objectives:

- ☐ Students will be able to observe potatoes and identify the skin, flesh, and eyes of the potato.
- ☐ Students will be able to discuss the life of a potato from seed potato to potato chip.
- ☐ Students will be able to name various foods made from potatoes.

Estimated Teaching Time: 1 hour

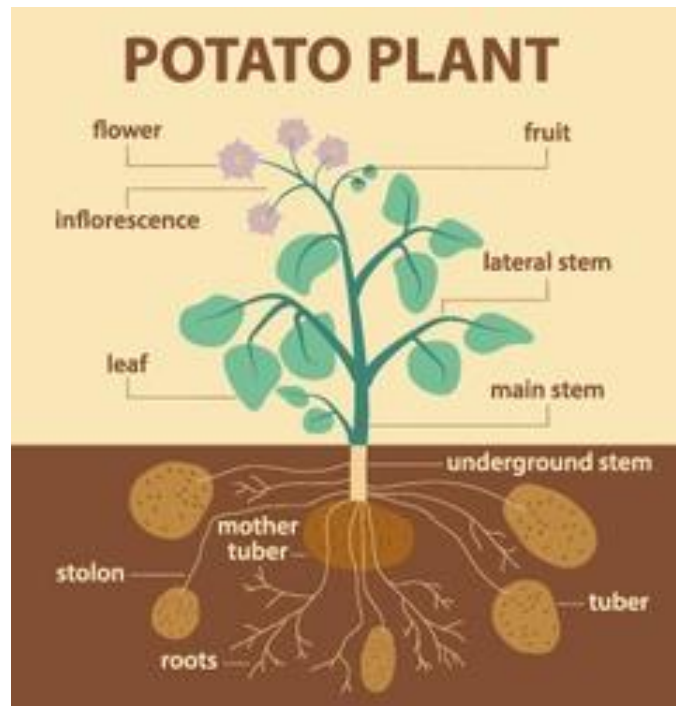
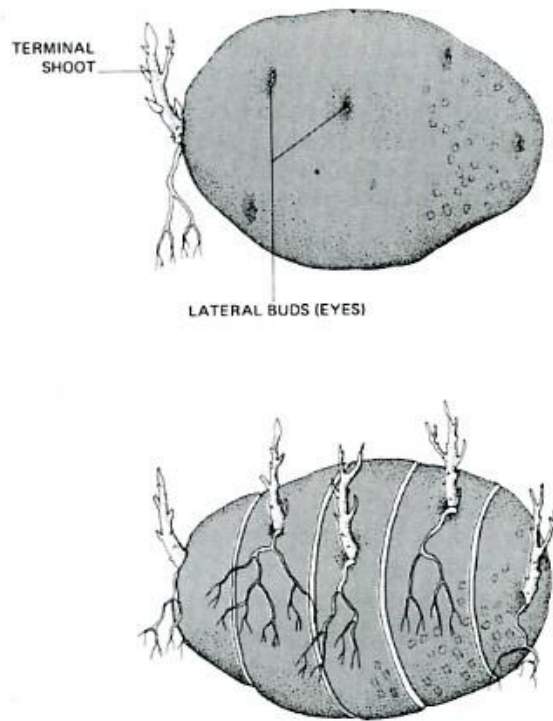
Materials:

- ☐ Book: Jamie O'Rourke and the Big Potato by Tomie dePaola
- ☐ Photograph slideshow from local potato growers at Navajo Mesa Farms: <http://www.rgpotato.com/r-g-potato-co-and-navajo-mesa-farms-white-chipping-potatoes---about-us.html>
- ☐ Video: How Do They Make Potato Chips?: <https://www.youtube.com/watch?v=PdyDlMqcRUs>
- ☐ Variety of potatoes to share with students
- ☐ Knife (just one for teacher to cut open a potato)
- ☐ Hand lenses (if available)
- ☐ 3-5 different flavors of potato chips
- ☐ post it notes (large enough to write a full sentence on)

Vocabulary: potato, skin, flesh, eye, crop

Supporting Information:

Parts of a potato and potato plant (make sure to point out that potatoes are an underground crop):



(potato image: <http://www.biology-pages.info>)

- Interesting Potato Facts:

- There are thousands of different potato varieties but not all are commercially available, popular ones include Russet, Yukon Gold, Kennebec, Desiree and Fingerling.
- Arizona farmers harvest over 3500 acres of potatoes each year. That's almost 140,000 pounds of potatoes a year.
- Navajo Mesa Farms is our largest Arizona potato producer. A family run business since 1977. They grow potatoes to be used in Lay's potato chips.
- Potato farming has deep roots in Queen Creek, Arizona as well. The old Potato Barn provided seasonal income to many families in the area. Kids even used to be let out of school in May to go help with the potato harvests.
- Potatoes are vegetables but they contain a lot of starch that make them more like rice, pasta and bread in terms of nutrition.
- Much like rice, wheat and corn, potato crops are an important part the world's diet.
- Potato plants are usually pollinated by insects such as bumblebees.
- Based on 2010 statistics, China is the leading producer of potatoes.
- Potatoes are prepared and served in many different ways, including boiled potatoes, mashed potatoes, baked potatoes, French fries and hash browns.
- French fries contain a lot of fat so don't eat too many!
- Potatoes are usually served hot, but sometimes cold in the form of potato chips or potato salad.
- Despite health concerns, potato chips are one of the most common snack foods in the world with billions of packets being consumed every year.

- o Potatoes are sometimes called spuds.

Procedures:

1. Start by asking your students if they've ever seen a potato before. What color was it? How big was it? Then bring out a sampling of different varieties of potatoes for the kids to observe (with hand lenses if possible). Have them share what they discovered.
2. Cut open a potato for the students to see. Point out the skin, flesh, and the eyes if the potatoes have any. The eyes are the sprouts for the plant. The growing plant uses the flesh of the potato as food as it grows.
3. Then have students share out everything they already know about potatoes. Accept all responses. Share interesting facts with the kids from information listed above.
4. Encourage students to identify as many foods as they can that are made from potato.
5. Tell the students that they will be learning more about this amazing underground crop and will get to taste test some yummy potato foods at the end of the lesson!
6. Read Jamie O'Rourke and the Big Potato by Tomie dePaola. Make a point to ask students after the book is read where does a potato grow? Under ground, on a tree, on a vine... ? (underground.) Next, ask them if they think we are able to grow potatoes here in Arizona? (Yes, we can and do.) Next, they'll look at a picture slideshow from the largest potato grower in Arizona- Navajo Mesa Farms. Have them look for new things they didn't know about potatoes.
7. Click through picture slideshow to show the students the land, tractors, potatoes, and farmers: <http://www.rgpotato.com/r-g-potato-co-and-navajo-mesa-farms-white-chipping-potatoes---about-us.html>
8. Have students turn to a friend and tell them one thing they really liked from the photographs.
9. Discuss what the potatoes need to survive and thrive. (Soil, sunlight, water, air, and care from the farmer)
10. Next, remind the students of some of the foods that are made with potatoes, ending with potato chips. Let them know that Navajo Mesa Farms grows their potatoes for Frito-Lay who makes Lay's potato chips!
11. Watch the video How Do They Make Potato Chips?: <https://www.youtube.com/watch?v=PdyDlMqcRUs>
12. Have kids share out what they liked about the process or found interesting.
13. Finally, bring out 3-5 different varieties of Lay's potato chips and let the kids know that today, they get to be Lay's potato chip official taste testers.
14. Ask them to sample each of the flavors and then pick their favorite.
15. They are to record on a post-it note their favorite flavor and one reason why.

16. Make a class graph on the white board or chart paper using the post it notes.
17. Gather the students together to read over student opinions and declare a winner!

Evaluation Options:

- ☐ Have students identify and explain the parts of the potato to you or a partner.
- ☐ Have students explain what potatoes need to survive and thrive.
- ☐ Have students explain orally or diagram the life of a potato from farm to table.

Extensions and Variations:

1. Instead of using solely potato chips, have a potato party with all sorts of potato foods: fries, chips, hash browns, etc...
2. Have students write an opinion piece on their favorite flavor of chip or potato food and providing reasoning based on grade level standards.
3. Grow potatoes with your students in an outdoor space at school. Try growing different varieties to see which grows best in your region.
4. Play Hot Potato: Stand in a circle and start the music. The person with the potato tosses it to the person to their right. Continue tossing to the right around the circle until the leader stops the music. The person holding the potato when the music stops has the "hot potato," and is out of the game.
5. How to make a potato battery:
<https://www.youtube.com/watch?v=EFuF2Tsg9HY>

Potato Battery

**Resources:**

1. Epicurious has wonderful photos of all of the different varieties of potato chips available in the grocery stores along with delicious recipes at
<https://www.epicurious.com/archive/seasonalcooking/farmtotable/visual-guide-potatoes>
2. Navajo Mesa Farms: <http://www.rgpotato.com/>