

Dig Into Potatoes

Standards of Learning

Science K.1, K.2, K.4, K.6, K.7, 1.1, 1.4, 1.6, 1.7, 1.8, 2.1, 2.4, 2.7, 2.8

Language Arts K.1, K.2, K.3, K.4, 1.1, 1.2, 1.3, 1.4, 1.8, 2.1, 2.3, 2.7, 2.8

Social Studies K.3, K.6, K.7, 1.6, 2.7

Objective

Students will:

- Read and analyze the poem “Potatoes”
- Identify the needs of plants
- Identify soil characteristics, emphasizing Virginia crops
- Illustrate elements of the poem

Materials

- Handout “Potatoes” – one per student
- Coloring sheet handout – one per student

Background Knowledge

There are three kinds of resources, natural, human, and capital resources. It is important for your students to understand the difference between these resources and why they are important. Natural resources are things found in nature, such as water, soil, sun, plants, and trees. Capital resources are things that help us work or produce what we need like tractors, tools, and buildings. Human resources are people. Humans can be resources because we go to them for certain things like fixing a car, planting crops, or cleaning teeth.

This activity can be especially useful in teaching Science Standard 2.8 – “The student will investigate and understand that plants . . . are a source of useful products, and provide benefits in nature. Key concepts include important plant products.” There are other important plant products to point out to your students other than potatoes. Important plant products would include all kinds of vegetables, trees, and fruits because we use them for food and other products that are made from them, such as paper.

Procedure

1. The poem, “Potatoes”, (see student handout) recalls a young girl’s memory of digging potatoes on her family’s Virginia farm. Share this poem with your students. It may be more effective if read aloud.
2. Once the poem has been read, proceed to analyzing the poem with your students by using the questions below:
 - a. What crop is the subject of this poem? Potatoes
 - b. What color are the potatoes? Golden
 - c. Are potatoes grown in Virginia? Yes
 - d. What favorite foods can be made from potatoes?
 - e. During which season does this poem take place? Summer
 - f. Who is Billy? We don’t know for sure – a fellow potato picker, brother, friend
 - g. Who is the farmer and how can you identify him? Daddy – he is on the tractor
 - h. What is the farmer doing with the tractor? Plowing up the soil to make it easier to dig up the potatoes
 - i. In what type of soil do these potatoes grow? Red clay



- j. How does the speaker describe the soil? Cool on her toes
 - k. Where do potatoes grow, above or below ground? The part that we eat grows underground
 - l. The poem describes for us what plants need to grow. List these things. seed, soil, sun and rain
 - m. What rhyming words can you identify in this poem?
3. Students can color the accompanying coloring sheet handout.
 4. Clues in the poem should be utilized by students to determine what color should be used for certain elements. For example, the soil should be reddish brown and the potatoes should be golden brown.
 5. Make students aware of the **natural resources** highlighted in this poem – potatoes, soil and water. Ask second grade students to identify the **human resources** (the farmer and the children who are collecting potatoes) and **capital resources** or tools (the tractor).
 6. Potato Points - additional facts about Virginia potatoes to share with your students:
 - a. Potatoes are primarily grown on Virginia’s Eastern Shore.
 - b. The type of potato that the poem refers to is an early summer potato called Irish potatoes. This is the number one vegetable grown in the entire world!
 - c. According to the 2002 Virginia Agricultural Statistics Bulletin, summer potatoes rank **18** in Virginia’s top 20 farm commodities.
 - d. According to the Virginia Department of Agriculture and Consumer Services, more than one-third of Virginia’s potato crop is used for potato chips!
 - e. The part of the potato that we eat is called the **tuber**. It is a swollen underground plant stem.
 - f. The function of the potato leaves is to produce the plants own food, in the form of sugar, through the process of photosynthesis.
 - g. Sugar that is produced, but not used, by the potato plant is stored in this tuber in the form of starch. This starch content makes the potato one of America’s favorite carbohydrates.

Extension

New crops of Irish potatoes are grown each year by planting “eyes” saved from the previous year’s crop. You can do this with your students in your classroom! Find an old potato or two and cut in half across the middle. Make sure that each cut part contains “eyes” – areas where new potato plants are sprouting. Stick three toothpicks into the cut potato at equal distances around the potato. Suspend the potato by the toothpicks in a jar or glass of water with the cut side in the water. Place the jar and potato in a sunny location such as a windowsill. You should soon observe new potato plants sprouting and growing from the “eyes”. This simple activity is a great way to bring the outdoor garden into the classroom!

References

www.virginiaplaces.org/agriculture/potatoes/html

Provides an interesting narrative of the history of potatoes in Virginia.

<http://hsc.virginia.edu/hs-library/historical/herb/ger2.html>

Provides a botanical drawing of potatoes growing underground.

<http://www.vdacs.state.va.us/teachers/index.html>

This address takes you to the Teacher Resources page of the Virginia Department of Agriculture and Consumer Services. This is a fantastic site that contains activities, coloring sheets, information, maps, and additional links all focused on Virginia agriculture.



The Humble Potato: Underground Gold by Marcia Eames-Sheavly and Tracy Farrell.

This is an excellent teacher's guide that presents ten activities that focus on the science and social aspects of potatoes as a major food crop for the world. This guide can be ordered from the Cornell Educational Resources Program at <http://cerp.cornell.edu>.



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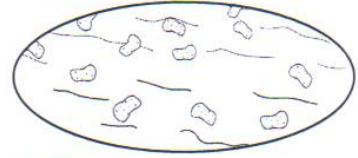
Potatoes

by Liz Alford

Red clay between my toes



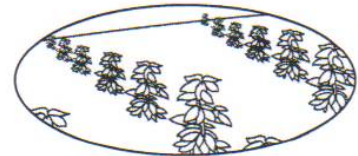
Golden potatoes turned up in rows



Cool on my feet on a hot summer morn



Reminds me of my farming home



Daddy on the tractor



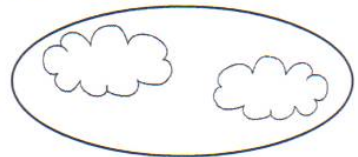
Billy beside me



Searching, digging; we think it's a game



Finding the gifts of seed, soil, sun and rain.



Name: _____

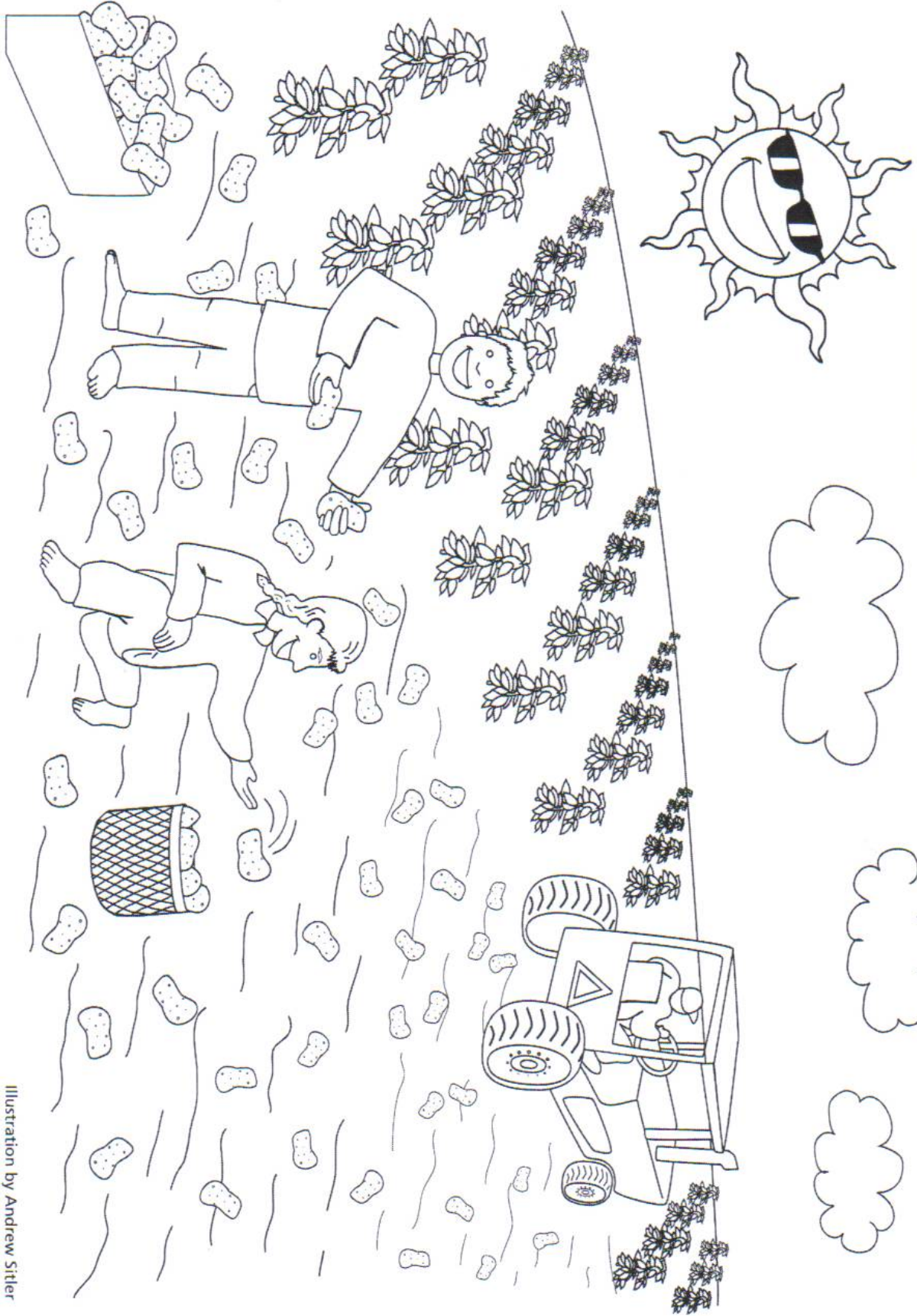


Illustration by Andrew Stiler

