

February - Lesson Plan Grades 2-3

VARY YOUR VEGGIES



Objectives

Learn why it's good to eat potatoes and mushrooms.

Learn what potatoes and mushrooms look like.

Learn how potatoes and mushrooms grow.

Supplies Needed

February

Pick a **better snack™** & **ACT** bingo card

2nd Grade - Math "Fun Facts About Mushrooms" worksheet

3rd Grade - "Care of Mushrooms" worksheet

Potatoes for tasting

Mushrooms for tasting

Knife

Taste Opportunities

Featured Vegetables:

Potatoes

Mushrooms

Background

Potatoes are the most widely consumed and economical vegetable. They are a leading source of vitamin C simply because of the quantities eaten. Many people think of potatoes as a fattening food but that fat comes from processing and the toppings added. About 65 percent of potatoes are sold in more convenient forms, like French fries, which increase the fat and sodium (salt) content.

Eat potatoes with their skin whenever possible. Potato skins contain fiber, iron, calcium, phosphorus, potassium, zinc, and B vitamins. It is best not to eat the potato skin if it has a greenish tinge. This is chlorophyll and is not harmful, but it is an indication of high amounts of a toxin called solanine. Store potatoes in a cool dark place. Do not put them in the refrigerator since this turns the starch to sugar giving the potato a sweet taste. Leaving the potatoes at room temperature for a few days can reverse this.

The states of Washington and Idaho grow many of the potatoes for the United States. Potatoes grow underground in the soil.

The Irish were introduced to the potato between 1586 and 1588. They were the first to recognize the food value of the potato. The climate and soil of Ireland were perfect growing conditions for the potato. Soon, potatoes became the main food crop of the country. In 1845 and 1846, the potato crop failed and many people in Ireland had no food. One of the consequences of the potato crop failure was the increased immigration of the Irish to the United States.

In 1621, Captain Nathaniel Butler brought potatoes to America. Every American eats about 126 pounds of potatoes every year.

Mushrooms are not thought of a good source of nutrients because they lack the bright color of so many vegetables. Cooked mushrooms are an excellent source of niacin and a good source of riboflavin, which are B vitamins.

Mushrooms are really not a vegetable, but a fungus. Fungus is a plant that does not have roots or leaves, does not flower

or bear seeds, doesn't make its own food, and doesn't need light to grow. Mushrooms grow best in dark, damp places. There are about 38,000 varieties of mushrooms, some are edible and some are very toxic.

In ancient times, mushrooms were thought to be magical. People were forbidden to eat them unless they were warriors or kings. When mushrooms grow in a circle, they are called fairy rings because people in the olden days thought they were made by fairies dancing in the night.

About half of the mushrooms harvested in the United States come from the Kennett Square area of Pennsylvania. Kennett Square has been named the "mushroom capital" of the world.

Mushrooms come in many shapes, sizes, and colors. The umbrella-shape at the top of the mushroom is called the cap and can be the most colorful part. The underneath side of the cap contains spores and gills. The stem of the mushroom is called the stalk. The base of the mushroom is called the hyphae.

Web Site Resources

www.idph.state.ia.us/pickabetersnack
www.fruitsandveggiesmorematters.org
www.mypyramid.gov/kids/index.html

Do the Activity: 2nd Grade

Read I Like Potatoes by Jennifer Julius, Children's Press, 2000. Part of the *Welcome Books* series, this book explains that potatoes are a vegetable and describes the various ways they can be eaten.

OR

Jamie O'Rourke and the Big Potato by Tomie dePaola. Jamie O'Rourke, the laziest man in Ireland, gets a leprechaun to grant him a wish to grow a giant potato.

3rd Grade

Distribute a "Fun Facts About Mushrooms" worksheet to each student. Answers are cap, potassium, fungi, soup, dark, gills.

Distribute the "Care of Mushrooms" worksheet to each student or make a transparency of the worksheet. Discuss the process of growing mushrooms.

Talk It Over:

Who can tell me why it's good to eat potatoes? *(Potatoes are a good source of vitamin C. Potato skins provide fiber, iron, calcium, phosphorus, potassium, zinc, and B vitamins.)*

Who can name a vegetable they have eaten today?

Who can tell me what vegetables are found on the February bingo card? *(potatoes and mushrooms)*

How many of you have eaten potatoes with red or yellow skins?

MyPyramid encourages kids to eat dark orange and green vegetables. What kind of potato could help you do that? *(sweet potato)*

How many of you have eaten mushrooms?

How do you like to eat mushrooms?

Apply:

What are some ways you have eaten potatoes either at school, at home or when you have eaten at a restaurant? *(Many of you have eaten potatoes as French fries, as a baked potato, mashed, hash browns, or as tater tots.)*

What is the best way to eat potatoes? *(With their skins on and boiled or baked. Watch how much butter or sour cream you add.)*

What are some ways you have eaten mushrooms? *(On pizza, on salads, raw with dip, baked, sautéed, steamed, in casseroles, soups, etc)*

Can you think of other ways you might eat more mushrooms? *(add to soup, put in with a casserole, put mushrooms on a sandwich)*

Where do you find potatoes and mushrooms in the grocery store? *(In the produce department. Potatoes can be canned, dried and found in boxes, but they lose some of their nutrients.)*



**Taste
Opportunity**

Have the students wash their hands. Wash the mushrooms and cut for the students to sample. *(Students may want vinaigrette or Italian dressing for dipping.)*

Peel and cut a potato for the students to sample. Since the potato is raw, we are going to peel it.

They can then put an "X" through the bingo square of the vegetable that they sampled.

How would you get a potato ready to eat as a snack?

– Wash. Peel. Eat. (How easy is that?)

How would you get mushrooms ready for a snack?

– Wash. Eat. (How easy is that?)

On the back of the Pick a **better** snack™ & **ACT** bingo card for each month, there is information for their parents and grandparents. Have the students take the bingo card home and have their family pick out a snack idea to try.

Extend the Activity



**Art, Music
& PE**

Use your imagination to create a vegetable insect. Use large vegetables – potato, zucchini, bell pepper, or squash for the body. Use smaller vegetables – cherry tomatoes, beans, carrots, spinach, corn kernels, onion, or celery for legs, wings, head, body parts, and antennae. Use toothpicks or “edible glue” (cream cheese) to attach legs, wings, and other body parts.



**Language Arts
& Reading**

Books about potatoes for students to read or to read to the class:

- 1) The Enormous Potato by Aubrey Davis, Scholastic, 1997. How do you get the biggest potato in the world out of the ground? In this retold folktale, it takes a lot of help. A farmer plants a potato eye and the rest is a comical surprise.
- 2) I Like Potatoes by Jennifer Julius, Children’s Press, 2000. Part of the *Welcome Books* series. This book explains that potatoes are a vegetable and describes the various ways they can be eaten.
- 3) Jamie O’Rourke and the Big Potato by Tomie dePaola, Scholastic Inc. 1992. Jamie, the laziest man in Ireland, gets a leprechaun to grant him a wish to grow a giant potato.



Math

Have the students survey other students in the class about their favorite potato product and graph the results. Are French fries the most popular?

Make a table using facts about the calories contained in the different ways potatoes are eaten (baked, plain; baked with butter; baked with butter and sour cream; French fries; mashed). Use the data in word problems that compare numbers.



**Science &
Health**

Review the unique environment that supports the growth of mushrooms. (Does not need light to grow, does not have roots or seeds, etc.)



Social Studies

Write a story about a boy/girl in ancient times who eats a mushroom. What kinds of magical adventures did he/she have? (See Background section of this lesson on mushrooms.)

VARY YOUR VEGGIES

Fun Facts About Mushrooms

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$$\begin{array}{r} 2 \\ +2 \\ \hline \end{array} = A \quad \begin{array}{r} 3 \\ +5 \\ \hline \end{array} = I \quad \begin{array}{r} 4 \\ +5 \\ \hline \end{array} = U \quad \begin{array}{r} 5 \\ +5 \\ \hline \end{array} = F \quad \begin{array}{r} 1 \\ +0 \\ \hline \end{array} = N \quad \begin{array}{r} 6 \\ +6 \\ \hline \end{array} = O$$

1. The top of the mushroom is called the $\frac{\quad}{6} \frac{\quad}{4} \frac{\quad}{11}$.

2. Mushrooms have plenty of _____ to make you healthy.

3. Mushrooms are part of a family of plants called $\frac{11}{10} \frac{12}{9} \frac{3}{1} \frac{4}{2} \frac{7}{8} \frac{7}{8} \frac{8}{9} \frac{9}{5}$

$$\begin{array}{r} 2 \\ -1 \\ \hline \end{array} = K \quad \begin{array}{r} 6 \\ -3 \\ \hline \end{array} = U \quad \begin{array}{r} 7 \\ -2 \\ \hline \end{array} = L \quad \begin{array}{r} 8 \\ -6 \\ \hline \end{array} = G \quad \begin{array}{r} 9 \\ -5 \\ \hline \end{array} = A$$

$$\begin{array}{r} 10 \\ -2 \\ \hline \end{array} = P \quad \begin{array}{r} 7 \\ -1 \\ \hline \end{array} = R \quad \begin{array}{r} 8 \\ -1 \\ \hline \end{array} = I \quad \begin{array}{r} 11 \\ -2 \\ \hline \end{array} = S \quad \begin{array}{r} 13 \\ -3 \\ \hline \end{array} = O \quad \begin{array}{r} 17 \\ -6 \\ \hline \end{array} = D$$

1. Mushrooms make a delicious _____ that many people love.

2. Mushrooms grow in $\frac{9}{11} \frac{10}{4} \frac{3}{6} \frac{8}{1}$, damp places.

3. The mushroom spores grow in the $\frac{\quad}{2} \frac{\quad}{7} \frac{\quad}{5} \frac{\quad}{5} \frac{\quad}{9}$.

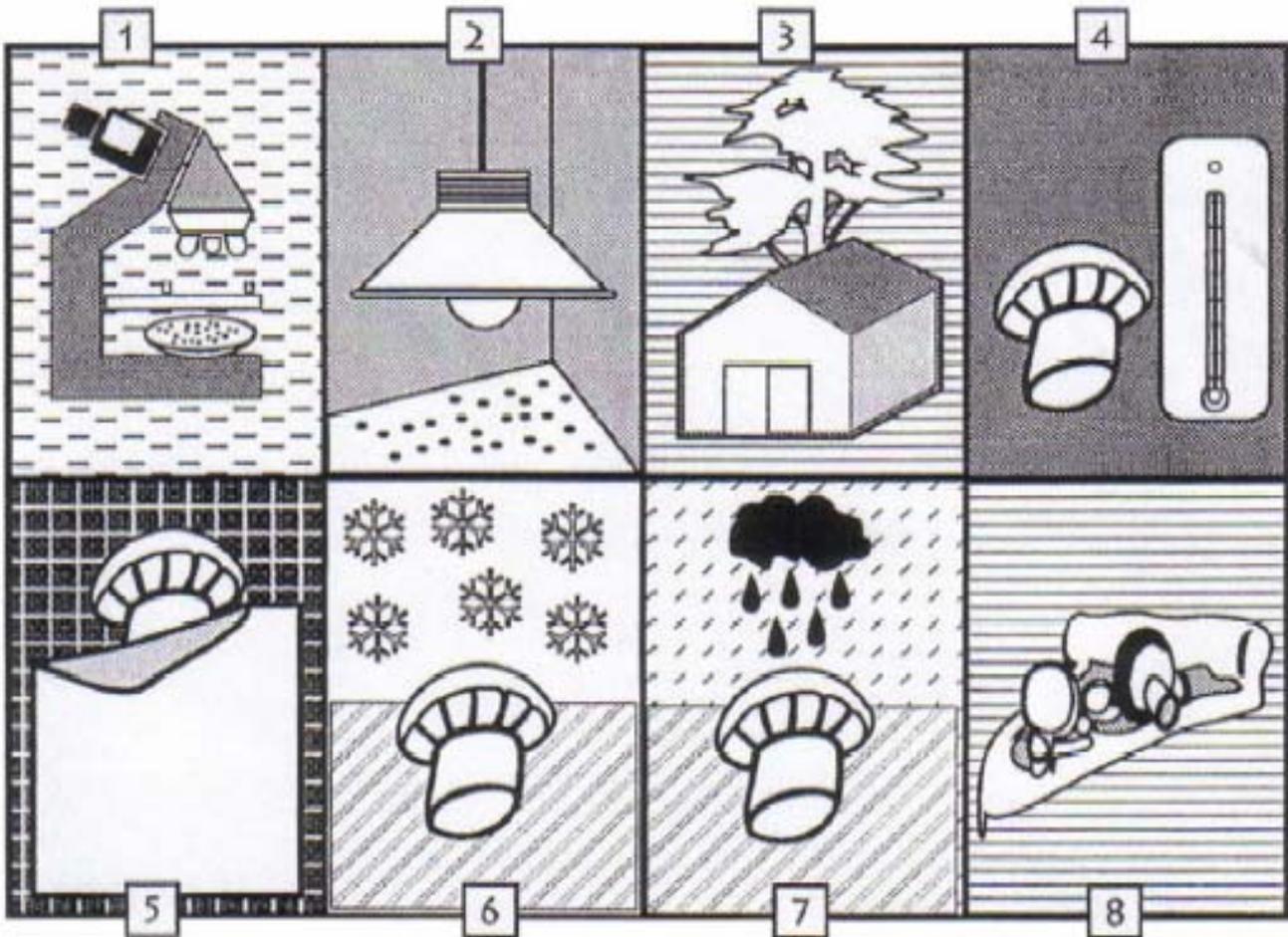
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VARY YOUR VEGGIES

Care of Mushrooms

Write the number of the picture below that matches the sentence description.

- _____ They are planted in compost at the mushroom farm.
- _____ The temperature is dropped to 60 degrees.
- _____ Spores are germinated in a laboratory and develop into a root system (mycelium).
- _____ Humidity is raised to 95%.
- _____ They are incubated on millet seeds.
- _____ The mature mushrooms are harvested 2-3 weeks later.
- _____ The mycelium is covered with peat moss.
- _____ The temperature and humidity are carefully controlled.



Source: Mushroom Education Packet - www.americanmushroom.org/workbook.pdf