

Arizona Grown Specialty Crop Lesson Plan

**Mmmmm,
I'm Good! But
Am I Good
For You?**



LEVEL: Grades 4-6

SUBJECTS: Science, Language Arts,
Health

AZ ACADEMIC STANDARDS: ICH-E8, W-E3,
R-E2

MATERIALS

Teacher background information page, photocopies of nutrition facts, matching quiz, paper, pencil/pen for writing activity.

VOCABULARY

potassium, vitamin c, antioxidants, carbohydrates, fiber, nutrition, cholesterol, fat

RELATED LESSONS

Arizona!!! How the Heck Did I End Up Here???
I'm Here, I'm There, I'm Everywhere-I'm Super Spud
From Mashed to Riches

SUPPORTING INFORMATION

We are going to learn about the nutritious value of one of our favorite Arizona grown crops - the potato. What do we mean by nutritious? That it is nourishing or good for us in many ways. America's favorite vegetable not only contains zero fat and zero cholesterol, but it is high in vitamin C and potassium and it is an excellent source of fiber with the skin on. In addition to being nutritious and delicious, potatoes are versatile. Potatoes can be at the

center of the plate with beef, chicken, or fish, or on their own as a vegetarian dish. Mash, bake, or microwave potatoes for a tasty side dish. Leave the skins on your spuds for an extra boost since a wealth of vitamins, minerals, and fiber are found in the peel.

To stay healthy, be sure to exercise, control meal portions, and eat well. The best guide for eating well is the United States Department of Agriculture's Food Guide Pyramid. Make sure to eat plenty of fruits and vegetables - a minimum of 5 servings per day.

GETTING STARTED

Students will be working in groups of 5 for part of this activity. Each person in the group needs to have a different information fact card to read to the others in the group.

PROCEDURES

1. Teacher reads the supporting information on nutritional value of potatoes.
2. Students will be divided into groups of 5 and each member of the group will have a different fact about the potato. The students will read their information to the other members of the group. Students should be encouraged to take notes during this aspect of the lesson.
3. After the group work is completed, have the entire class discuss and review what they have learned. Write information

BRIEF DESCRIPTION

This lesson is designed to give students a basic knowledge about the nutritional value of the potato, where it fits into the food pyramid, and how it can be an important part of a balanced diet.

OBJECTIVES

The students will learn about the important nutrients contained in the potato. They will demonstrate their understanding by completing a matching exercise and a written summarization on nutritional value.

ESTIMATED TEACHING TIME
45 minutes - 1 hour

PROCEDURES (cont'd)

on blackboard.

4. After discussion is completed, pass out matching exercise to complete.

5. When matching exercise is completed, assign students to complete a 1 page summary on why potatoes are good for you and how they are an important part of a balanced diet. Allow students to use reference materials to assist them in completing this assignment.

Additional Activities:

1. Have students research nutritional values of other AZ Grown Specialty crops. Make comparisons and rank them in terms of overall value.

2. Create a bar graph to represent the percent of the daily value that 1 potato provides for the nutrients discussed in the lesson. Do the same for 2 or 3 servings, etc.

Possible Questions: What are some of the reasons that potatoes are good for you?
answers will vary

What category in the food pyramid does the potato fit into? *vegetable*

How many servings per day should you have of fruits/vegetables? *5*

Do you think eating potatoes could be bad for you? How or why? State examples.

What are some of the ways that potatoes are cooked? Are they all equally nutritious?
No, skin on has more nutrients, steamed is better than boiled, fried can add fat, etc.

EVALUATION OPTIONS

1. Students complete matching exercise on nutrient facts.

2. Students complete written one page summary on the value of eating potatoes. Assess on content accuracy and language arts mechanics.

EXTENSIONS AND VARIATIONS

1. Design "Super Spud".

Have students create their own potato. Tell what is unique about their potato and how it is beneficial.

2. Make a chart listing different ways potatoes are cooked/served. Make surveys on students' favorite style of potatoes.

3. Have a potato potpourri picnic and have students bring in dishes of different styles of potatoes.

4. Make a class cookbook in which each student brings in their favorite potato recipe to copy and share with others.

RESOURCES

www.potatohelp.com

The potato then and now
www.sunspiced.com

www.thepotato.com

Book - The Potato: How the Humble Spud Rescued the Western World by Larry Zuckerman

Matching Exercise Key

1. E
2. H
3. D
4. F
5. B
6. C
7. A
8. G

EDUCATORS' NOTES

CURRICULUM DESIGN

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5th Grade

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This Arizona Grown Specialty Crop Lesson Plan was paid for by a grant from the Arizona Department of Agriculture's Office of Marketing and Outreach.

Teacher Background Information

Today, we are going to learn about the nutritious value of one of our favorite Arizona grown crops-the potato. What do we mean by nutritious? That it is nourishing or good for us in many ways. First, I am going to read to you some background information to you about the potato.

America's favorite vegetable not only contains zero fat and zero cholesterol, but it is high in vitamin C and potassium and it is an excellent source of fiber with the skin on.

In addition to being nutritious and delicious, potatoes are versatile. Potatoes can be at the center of the plate with beef, chicken, or fish, or on their own as a vegetarian dish. Mash, bake, or microwave potatoes for a tasty side dish. Leave the skins on your spuds for an extra boost since a wealth of vitamins, minerals, and fiber are found in the peel.

To stay healthy, be sure to exercise, control meal portions, and eat well. The best guide for eating well is the United States Department of Agriculture's Food Guide Pyramid. Make sure to eat plenty of fruits and vegetables-a minimum of 5 servings per day. Now we are going to break into groups of 5 to learn more about the value of the potato.

Nutrition Information Fact Cards - (Photocopy and Cut Out)

Potassium-Potatoes with skin are an excellent source of potassium, which is great for cardiovascular health. Diets containing foods that are a good source of potassium may reduce the risk of high blood pressure and stroke. Just 1 potato offers 21 percent of the daily value for potassium. Potassium also helps retain calcium, which is important to build strong bones.

Vitamin C-Potatoes are one of the leading sources of vitamin C in the American diet. This vitamin is a powerful antioxidant that helps stabilize free radicals, which may prevent cellular damage. Vitamin C also produces the collagen that helps hold bone tissue together.

Fiber-One medium potato with skin contains 12 percent of the recommended daily intake for fiber. Studies show that fiber is beneficial for a healthy digestive system and may reduce the risk of some cancers and possibly heart disease.

Antioxidants-Antioxidants protect key cell components by neutralizing the damaging effects of “free radicals”, natural by-products of cell metabolism. Free radicals travel through cells, disrupting the structure of other molecules, causing cellular damage. Such cell damage is believed to contribute to aging and various health problems, such as cancer.

Carbohydrates-Foods that contain complex carbohydrates are the main source of energy for the body. Many experts believe that high-protein, low-carbohydrate diets are potentially unhealthy and are not beneficial for maintaining weight loss. Because these diets tend to be high in saturated fats and low in fruits, vegetables, and grains, they may increase the risk for heart disease and some cancers.

Matching Exercise-Match the correct term with its description

- | | |
|--|---------------------|
| _____ 1.Nourishing | A.Fat & Cholesterol |
| _____ 2.A potato with skin is an excellent source of this.
May reduce the risk of high blood pressure and stroke | B.Carbohydrates |
| _____ 3.One of the leading sources of this in the American diet.
A powerful antioxidant. | C.Fiber |
| _____ 4.Protects cells from damaging effects of “free radicals”
May help against aging and various health problems. | D.Vitamin C |
| _____ 5.The main source of energy for the body. | E.Nutrition |
| _____ 6.Beneficial for a healthy digestive system.
May reduce the risk of some cancers & heart disease. | F.Antioxidants |
| _____ 7.A potato has zero percent of these items. | G.Five |
| _____ 8. The number of servings recommended for
fruits/vegetables every day. | H.Potassium |