

Oklahoma Ag in the Classroom

How to Pick the Best

Objective

Students will learn the origins of common fruits and vegetables and learn how to choose the best quality.

Background

Walk into the produce section of your grocery store any time of the year, and you will find a variety of fresh fruits and vegetables. Modern transportation and storage methods make it possible for our local grocers to carry all kinds of produce year round. These foods come to us from many different places—cantaloupes from Texas; grapes, peaches, lettuce, and strawberries from California; oranges and avocados from Florida, blueberries from Arkansas, mangoes from Mexico, and bananas from Costa Rica. Oklahoma-grown fruits and vegetables are available in some grocery stores when they are in season. Farmer’s markets are another place to buy locally-grown produce.

The best thing about fresh produce is how good it tastes and how good it is for you. But how can you tell, without tasting, which peach or tomato or cantaloupe will taste the best?

One thing to look for is deterioration. Produce can decline rapidly when it is on display in the grocery store. Many fingers will handle that peach or those grapes before you get to them. You need to handle produce to judge its quality, but you should be considerate of others by handling it carefully. Rough handling causes spoilage and waste.

Fruit that looks good usually tastes good, but fine appearance does not always insure fine quality. Often a very attractive fruit may not taste good. On the other hand, a fruit with poor appearance due to poor color or superficial blemishes may be delicious.

When buying vegetables, check for characteristic signs of freshness such as bright, lively color and crispness. Another way to judge good produce is by weight. The best produce is usually heavy for its size.

Most produce tastes better and costs less when it is in season. Produce grown locally usually tastes better. Produce shipped from long distances must be harvested before it is ripe and may not taste as good as produce allowed to ripen before harvest. The nutritional value of produce also decreases when it is stored for a long period of time.

English Language Arts

1. Read and discuss background and vocabulary.
—Hand out copies of the “Reading Page” and “3-2-1”

Oklahoma Academic Standards

KINDERGARTEN

Speaking and Listening:
R.1,2,3; W.1,2. Critical Writing. Vocabulary: R.1,2,3; W.1

Social Studies Content: 2.3

Life Science: 1-1. Earth Science: 3-1

Algebraic Reasoning: 1.1. Geometry & Measurement: 1.2; 2.1,2,3

GRADE 1

Speaking and Listening:
R.1,2,3; W.1,2. Critical Writing: R.1. Vocabulary: R.1,2,3; W.1

Social Studies: 2.2

Life Science: 1-1

Number & Operations: 2.1. Algebraic Reasoning: 1.1

GRADE 2

Speaking and Listening:
R.1,2,3; W.1,2. Critical Writing: W.1. Vocabulary: R.1,2,3; W.1

Social Studies: 3.3

Physical Science: 1-1. Life Science: 4-1

Number & Operations: 2.1,2,5,6; 3.1. Algebraic Reasoning: 2.2

GRADE 3

Speaking and Listening:
R.1,2,3. Critical Writing: W.1. Vocabulary: R.1,2,3. W.1

Social Studies: 3.1E

Life Science: 3-1; 4-3

Number & Operations: 2.5,7. Geometry & Measurement: 1.1

Materials

Assorted fruits and vegetables in a variety of conditions. See attached charts. (Check with your grocer about getting some produce in non-prime condition for judging.)

- included with this lesson.
- Students will read the “Reading Page” and use the vocabulary strategy to help with their comprehension.
- Students will find words they do not know and find their definition.
- 2. Show students the fruits and vegetables you have brought.
 - Students will describe each item out loud.
 - Students will select one or two of the fruits and vegetables and write paragraphs describing them in as much detail as possible.
 - Students will write paragraphs comparing and contrasting two or more of the fruits and veggies.
- 3. Students will write and produce plays with some of the fruits and vegetables as characters. Students should take some time to think about the characteristics of their fruit and veggie characters.
- 4. Divide students into groups, and assign a fruit or vegetable to each group.
 - Students will develop posters or advertisements to persuade others that their fruit or vegetable is best.
- 5. For younger students: Students will name and sort (fruit or vegetable?) the produce you have brought to class.
- 6. Write the names of fruits and vegetables on the chalkboard. Students will practice writing the words.
- 7. Students will say words that describe specific fruits and vegetables.

Social Studies

1. As a homework assignment, students will visit the produce section of a grocery store and look at produce labels to find the origins of fruits and vegetables sold there. Students will make a list and locate all the produce origins on a map.
2. Students will locate the origins of their favorite fruits and vegetables on the US or world map included with this lesson.
3. Students will research which of their favorite fruits and vegetables grow in Oklahoma.
4. Students will use the charts that follow to determine which states produce the most fruits and vegetables. Students will locate these states on a US map and discuss what factors might make fresh produce easier to grow in these locations.

Science

1. Lead a brainstorming session in which you ask students how they would select the best quality fruits and vegetables. Conduct a produce-judging contest.
 - Bring an assortment of fruits and vegetables in a variety of conditions.
 - Students will use the charts provided to determine which are the best quality.
 - Assign a panel of judges to taste the produce and determine which

group has made the best judgment, or invite a produce manager from your local grocery store or a nutrition specialist from your county Extension office or local hospital to judge the judges.

2. Observe the effects of rough handling on fruits and vegetables.
 - Provide students with two samples of a delicate fruit or vegetable like peaches or tomatoes.
 - Students will observe the produce and write down their impressions of its condition.
 - Students will leave one of the samples alone, and pass the other sample around from one student to another until every student has handled it.
 - Students will handle the produce as carefully as possible the first time and more roughly the second.
 - After each round, students will observe the handled produce to see how it has changed. Compare it to the produce that was not handled. Cut the produce open to see the effects of handling.

Math

3. Students will arrange the fruits and vegetables according to size and geometric shapes.
4. Cut some of the produce into halves and quarters to demonstrate fractions.
5. Use fruits and vegetables to demonstrate addition and subtraction facts. Use fruits and vegetables to demonstrate 25, 50 and 75 percent and to relate to corresponding fractions and decimals.
6. Students will create patterns with the different fruits and vegetables (squash, squash, tomato; apple, orange, banana; etc.)

Visual Art

1. Students will arrange the vegetables as still life paintings and photograph or draw them.

Physical Activity

1. Have a vegetable toss with a variety of vegetables, some more durable than others—sweet potatoes, winter squash, eggplant, cabbage.
 - Divide students into teams and have relay races with students handing the veggies carefully from one to the other.
 - The vegetable must be in one piece at the end.
 - After the first round, students will gently toss the veggies from one to the other.

Extra Reading

Ada, Alma Flor, Zubizarreta, Rosa, and Simon Silva, *Gathering the Sun: An Alphabet in Spanish and English*, Lothrop, 1997.

Ehlert, Lois, *Eating the Alphabet: Fruits and Vegetables From A to Z*, Voyager, 1993.

Hawkins, Linda J., *Alexander and the Great Food Fight*, Turner, 2002

Perez, L. King, and Robert Casilla, *First Day in Grapes*, Lee & Low, 2002

Rendon, Marcie R., and Cheryl Walsh Bellville, *Farmer's Market: Families Working Together*, Carolrhoda, 2001.

Vocabulary

deteriorate—to make or become worse or of less value

characteristic—a special quality or appearance that makes an individual or group different from others

consistent—unchanging

display—to put in plain view

farmer's market—a place, usually out-of-doors, where farmers can sell their produce to the public

firm—having a solid or compact texture

fresh—not stale, sour, or spoiled

growing season—the period of the year that is warm enough for growth especially of cultivated plants and especially the period between the last killing frost in the spring and the first one in the fall

harvest—the season when crops are gathered; the gathering of crops

in season—in a state or at the stage of greatest fitness (as for eating)

mushy—soft and spongy

produce—fresh fruits and vegetables

quality—grade of excellence

spoiled—damaged; decayed

store—to deposit in a place (as a warehouse) for safekeeping

transport—to carry from one place to another

How to Pick the Best

Read the following information about selecting the best fruit or vegetable. As you read, use the following strategy to help you understand the text:

P- *Predict what you will learn*

B- *Box in the title*

I- *Is this fact or fiction*

E- *Evidence found to prove it is Fact or Fiction*

C- *Circle words you do not know*

S- *Stop as you read, what do the words mean*

K- *Key details*

T- *Tell a friend what you read that's important*

HOW TO PICK THE BEST FRUITS AND VEGETABLES

If you go to buy food at the store you will find many fresh fruits and vegetables, no matter the time of year. Stores ship food from many places— oranges, bananas, and limes do not grow in Oklahoma. You can find some foods that are grown in Oklahoma—like watermelon, peaches, and strawberries, at stores when they are growing at the farm. You can also visit Farmer's Markets to buy food grown in your area.

The best thing about fresh food is how good it tastes and how good it is for you. But how can you tell, without tasting, which food will taste the best? One thing to look for is bad spots, or rot. Food can rot fast when it is at the store. Sometimes you need to touch food to see if it is good to eat, but you should touch it softly so it does not rot.

Food that looks good often tastes good, but not always. Often a very pretty fruit may not taste good. On the other hand, a fruit with poor color or spots on the skin may taste good. When buying vegetables, look at it to see if it is ready to eat— is it bright, colorful, and heavy for its size?

Food grown near you often tastes better and costs less. Food shipped from far away must be picked before it is ripe and may not taste as good as food that gets ripe on the vine. It also costs more to ship it to the store.

Name _____

How to Pick the Best 3-2-1

After reading the passage, complete this page.

3 Key Details I learned as I read:

1. _____

2. _____

3. _____

2 New Words I found as I read:

1. Word: _____

Definition: _____

2. Word: _____

Definition: _____

1 Thing I still want to know the answer to:

Fruit

	WHERE IT PROBABLY COMES FROM*	WHAT TO LOOK FOR	WHAT TO AVOID	PEAK SEASON	PEAK SEASON IN OKLAHOMA
APPLES <i>manzana</i>	WA, NY, MI, CA, VA	firm, crisp, well-colored apples	apples which yield slightly to pressure or have bruised areas	September through November	June through September
BANANAS <i>plátano</i>	Central and South America	firm, bright bananas, free from bruises or other injuries	bruised fruit or fruit with discolored, dull grayish skin	available year round	can't grow in Oklahoma
GRAPES <i>uva</i>	CA, AZ	green grapes should be almost yellow; red grapes should be mostly all red. All grapes should be plump	soft or wrinkled grapes or bunches with brown, brittle stems	June through December	August through September
KIWIFRUIT <i>kiwi</i>	CA	plump, unwrinkled fruit, firm or slightly yielding	fruit that is shriveled, moldy or extra soft	October through June	a variety of kiwi is grown in home gardens in OK, but the fruits are smaller than those found in supermarkets.
CANTALOUPE <i>melón</i>	CA, AZ, TX	pale yellow skin, pleasant cantaloupe aroma, slightly yielding at blossom end	attached stem, pronounced yellow rind color, softening over entire rind, large bruise areas	May through December	July through December

* Fresh market produce comes to our local grocery stores from a variety of locations, depending upon many factors, including availability, price, etc. Today, a great deal of produce is also imported from foreign countries when unavailable in the US.

The word in italics are Spanish.

Fruit

	WHERE IT PROBABLY COMES FROM*	WHAT TO LOOK FOR	WHAT TO AVOID	PEAK SEASON	PEAK SEASON IN OKLAHOMA
WATERMELON <i>sandia</i>	TX, FL, CA, OK	firm, symmetrical melon free of bruises, cuts and dents. Heavy fruit for size. Creamy yellow spot underneath	melons that are light weight or that have dents or bruises	June through August	July through October
ORANGE <i>naranja</i>	CA, FL, TX, AZ	firm, heavy oranges with fresh, bright-looking skin which is reasonably smooth	light-weight oranges, very rough skin texture, oranges with cuts or skin punctures, soft spots and weak areas at the bottom	April to November	can't grow in Oklahoma
PEACH <i>melocotón</i>	CA, SC, GA, OK, AR	peaches that are fairly firm or becoming slightly soft. Skin color between the red areas should be yellow or creamy.	firm or very hard peaches with a distinctly green color. very soft fruits, fruit with large flattened bruises or that show signs of decay	May through November	June through September
STRAWBERRY <i>fresa</i>	CA, FL, OR, WA	bright, clean appearance, uniform good color. Individual small cells should be plump and tender but not mushy.	leaky and moldy berries. Wet or stained spots on containers, attached stems	May through June	May through June

Vegetables

	WHERE IT PROBABLY COMES FROM*	WHAT TO LOOK FOR	WHAT TO AVOID	PEAK SEASON	PEAK SEASON IN OKLAHOMA
SNAP BEANS <i>alubias</i>	FL, GA, CA	fresh, bright appearance, with good color; young tender beans with firm, crisp condition	wilted or flabby bean pods, serious blemishes and decay; thick, tough, fibrous pods	available year round	June through October
BROCCOLI <i>brócoli</i>	CA, AZ	firm, compact cluster of small flower buds, dark or sage green clusters	spread bud clusters, enlarged or open buds, yellowish-green color, wilted condition	available year round	two seasons: May and October through November. best in fall
CABBAGE <i>col</i>	CA, FL, TX	firm or hard heads that are heavy for their size. Outer leaves should be a good green or red and free from serious blemishes.	cabbage with wilted or decayed outer leaves or leaves turned decidedly yellow; worm-eaten outer leaves.	available year round	two seasons: May through June and October through November
CARROTS <i>zanahoria</i>	CA, TX	well-formed, smooth, well-colored and firm carrots.	carrots with large green "sunburned" areas at the top and roots which are flabby or show spots of soft rot	available year round	July through October

Vegetables

	WHERE IT PROBABLY COMES FROM*	WHAT TO LOOK FOR	WHAT TO AVOID	PEAK SEASON	PEAK SEASON IN OKLAHOMA
<p>GREENS— spinach, kale, collard, chard, mustard, chicory, endive, escarole, turnip, beet <i>verdura</i></p>	CA, FL, GA	leaves that are fresh, young, tender, free from defects, and that have a good, healthy color.	leaves with coarse, fibrous stems, yellowish green color, softness or wilted condition.	available year round	April through June
<p>OKRA <i>abelmosco</i></p>	TX, LA	tender pods under 4 1/2 inches long. They should be bright green color and free from blemishes.	tough, fibrous pods, indicated by tips which are stiff and resist bending or by hard pod.	July and August	July through October
<p>SUMMER SQUASH— crook neck, zucchini, pattypan <i>calabacin</i></p>	TX, AZ, CA	squash that are tender and well-developed, firm and fresh-appearing. glossy instead of dull skin. Neither hard nor tough.	overmature squash, which will have a dull appearance and a hard, tough surface	May and June	May through October
<p>BELL PEPPERS <i>pimiento morrón</i></p>	CA, FL	peppers with deep characteristic color, glossy sheen, relatively heavy weight and firm walls or sides	peppers with very thin walls (indicated by light weight and flimsy sides), peppers that are wilted or flabby, with cuts or punctures	available year round	July through October

Vegetables

	WHERE IT PROBABLY COMES FROM*	WHAT TO LOOK FOR	WHAT TO AVOID	PEAK SEASON	PEAK SEASON IN OKLAHOMA
CORN ON THE COB <i>elote</i>	FL	fresh, succulent husks with good green color, silk-ends, ears that are well-covered with plump kernels	under-developed kernels, very large kernels, dark yellow or dried kernels, wilted or dry husks	May through December	June and July
CUCUMBER <i>pepino</i>	GA, FL	good green color, firm over entire length, well-developed	overgrown cucumbers that are large in diameter and have a dull color, shriveled ends	summer months	June through October
LETTUCE <i>lechuga</i>	FL, AZ, CA	freshness, good bright color	heads of lettuce which are hard and lack green color. Heads with irregular shapes, tan or brown around leaf edges	available year round	April through June
SWEET POTATOES <i>boniato</i>	TX, NC, LA, MS	firm sweet potatoes with smooth, bright, uniformly-colored skins, free from signs of decay	sweet potatoes with worm holes, cuts, grub injury, or any other defects which penetrate the skin	available year round	August through October
TOMATOES <i>tomate</i>	FL, CA	tomatoes which are smooth, well ripened, and free from blemishes. For fully ripe fruit, look for an overall rich, red color and a slight softness.	soft, overripe, or bruised tomatoes, and tomatoes with green or yellow areas near the stem scar, and growth cracks	available year round	May through October

Oklahoma Ag in the Classroom is a program of the Oklahoma Cooperative Extension Service, the Oklahoma Department of Agriculture, Food and Forestry and the Oklahoma State Department of Education.

Continental United States



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World Map

