COMMIT TO HEALTH

Foods of the Month
Fun, Experiential Activities

Tomatoes

Grades 3-5

Making a Mummy

Collect

- Plum Tomato
- Needle or knife, adults handle this only!
- Spoon
- Baking Soda
- Salt
- Mixing Bowl
- Cup
- *Optional:* weighing scale

Start the mummification process

1. Use the needle to carefully make a 2 inch incision along the tomato.(or knife, adults handle this step only!)
2. Use a spoon to take out the inside pulp 'organs.' Try to keep the rest of the tomato intact.
3. Make observations about your tomato. How much does it weigh? What does it look like, smell like, or feel like?

Add natron

4. Mix 2 cups baking soda and ½ cup table salt in a bowl.
5. Fill the tomato with the natron mixture.
6. Fill the bottom of the cup with an inch of natron and place the tomato inside. Continue adding natron until the tomato is completely covered.

What is natron?

Natron is a naturally occurring salt that Egyptians used for mummification. Baking soda and salt can be combined to create a similar mixture. Salt is a dessicant, which means that it helps dry the tomato by drawing water away from it.

Results

7. Leave your tomato mummy in a cool dark place for two weeks.
8. Uncover your mummy and observe changes to its weight, color, texture, smell, and size. Compare them to your first observations. What has changed?
9. If you'd like, refresh the natron and continue the mummification experiment for two more weeks. How long does it take to completely mummify the tomato? Why do you think that the mummification is complete?

MARYLAND SCIENCE CENTER

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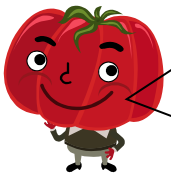
How does it work?

If a tomato is left out on the kitchen counter for a long time, bacteria start to multiply and break down the tomato. In order to preserve the tomato through mummification, the bacteria need to be stopped. Bacteria like to live in wet environments. By removing the inside 'organs' of the tomato, you are taking away a lot of the moisture that would otherwise allow bacteria to break down the tomato. Natron also helps by quickly drawing away all the water from the tomato and making it harder for bacteria to live. This type of preservation is called mummification! Try the experiment again with other types of preservation. Could you find a way to replicate preservation by acid or extreme cold? Do they have different results?

Tomatoes



Did you know?

- Tomatoes are a high source of vitamins A and C.
- Tomatoes, along with all fruits and vegetables contain antioxidants. Antioxidants help keep our body healthy.
- When a produce item has seeds, most of the time it is called a fruit. In 1893, the U.S. Supreme Court decided that tomatoes are a vegetable even though they have seeds.

What I learned about tomatoes: _____

_____

_____

My Goal!
I will eat _____ cups of tomatoes this week.





List 3 adjectives to describe tomatoes:

1)_____

2)_____

3)_____

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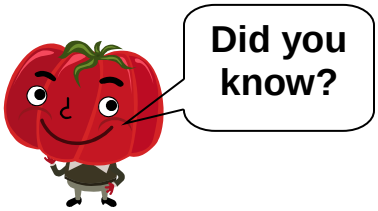
Tomatoes



Tomatoes are a high source of vitamins A and C.
Tomatoes contain lycopene (*LY-koh-peen*).
Lycopene is a powerful antioxidant that decreases the risk of certain cancers and heart disease.
Antioxidants help prevent damage to cells and they keep the immune system healthy.

What I learned about tomatoes:_____

_____

_____

_____

My Goal!
I will eat __cups of tomatoes this week.

List 3 ways you can eat tomatoes:

1)_____

2)_____

3)_____

Tomato Nutrition Facts

Serving Size: _____

_____**calories**

_____**g carbohydrate**

_____**g sugar**

_____**% calcium**

_____**% vitamin C**

_____**milligrams (mg) sodium**

_____**grams (g) total fat**

_____**g dietary fiber**

_____**g protein**

_____**% vitamin A**

_____**% iron**

Nutrition Facts

Serving Size: 1 cup, chopped, red tomato (180g)

Calories 32 — Calories from Fat 3

	% Daily Value
Total Fat 0g	1%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 9mg	0%
Total Carbohydrate 7g	2%
Dietary Fiber 2g	9%
Sugars 5g	
Protein 2g	

Vitamin A 30% Vitamin C 38% Calcium 2% Iron 3%

Source: **www.nutritiondata.com**

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SNHD Southern Nevada Health District

CHAMPIONS for CHANGE

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September: Tomatoes

Changing Sunlight to Food? How do plants do this?!!

All green plants contain chlorophyll that absorbs sunlight. The chlorophyll is in small parts of the plant called chloroplasts. Chloroplasts convert the sunlight/solar energy absorbed by the chlorophyll into sugar that is used by the plant to activate a process called photosynthesis.

Photosynthesis is a process whereby the plant uses water and carbon dioxide to create compounds called carbohydrates that help plants grow.

Fruit bearing plants such as the **tomato** store carbohydrates in the fleshy part of the fruit as well as in all other parts of the plant.

Try the fun experiment on the next page to see what happens if you block sunlight from the leaves of a green plant!

Try this Fun Experiment: Lights Out!!

1. Divide the students into small groups.
2. Provide each group with a potted green plant, a sheet of aluminum foil, scissors and several paperclips.
3. Children cut pieces of aluminum foil large enough to cover several leaves on their plant.
4. Children attach the pieces of foil to leaves on their plant using the paperclips.
5. Children label their plants and place them in windows where they will receive plenty of light.
6. After a week, children remove the pieces of aluminum foil and compare the appearance of the two groups of leaves.
7. Propose an explanation for the changes they have observed.
8. Discuss the significance of the presence or absence of **green** pigmentation in the plant leaves.

Adapted from: http://tomatosphere.org/teachers/guide/sun-energy

September: Tomatoes

Tasty Tomatoes – Let's Try Them!!!

(and then WIN a Certificate!)

Tomatoes have been ripening on the vines all summer, so start a discussion with kids about the diverse varieties of the tomato!

Wash and cut small tomato pieces from varying types for tasting samples. Place on a serving tray and set aside.

1. Ask kids how many different varieties of tomatoes they have seen at the grocery store, a garden or local farmer's market? List these on the board (such as standard round globe, plum, grape, cherry, yellow, green and purple).

2. One child at a time, present the tomato sample serving tray and let kids pick one sample to taste.

3. As kids are tasting, share tomato trivia:

    a. What nutrients do tomatoes have? (Vitamin A, C and the antioxidant, lycopene)

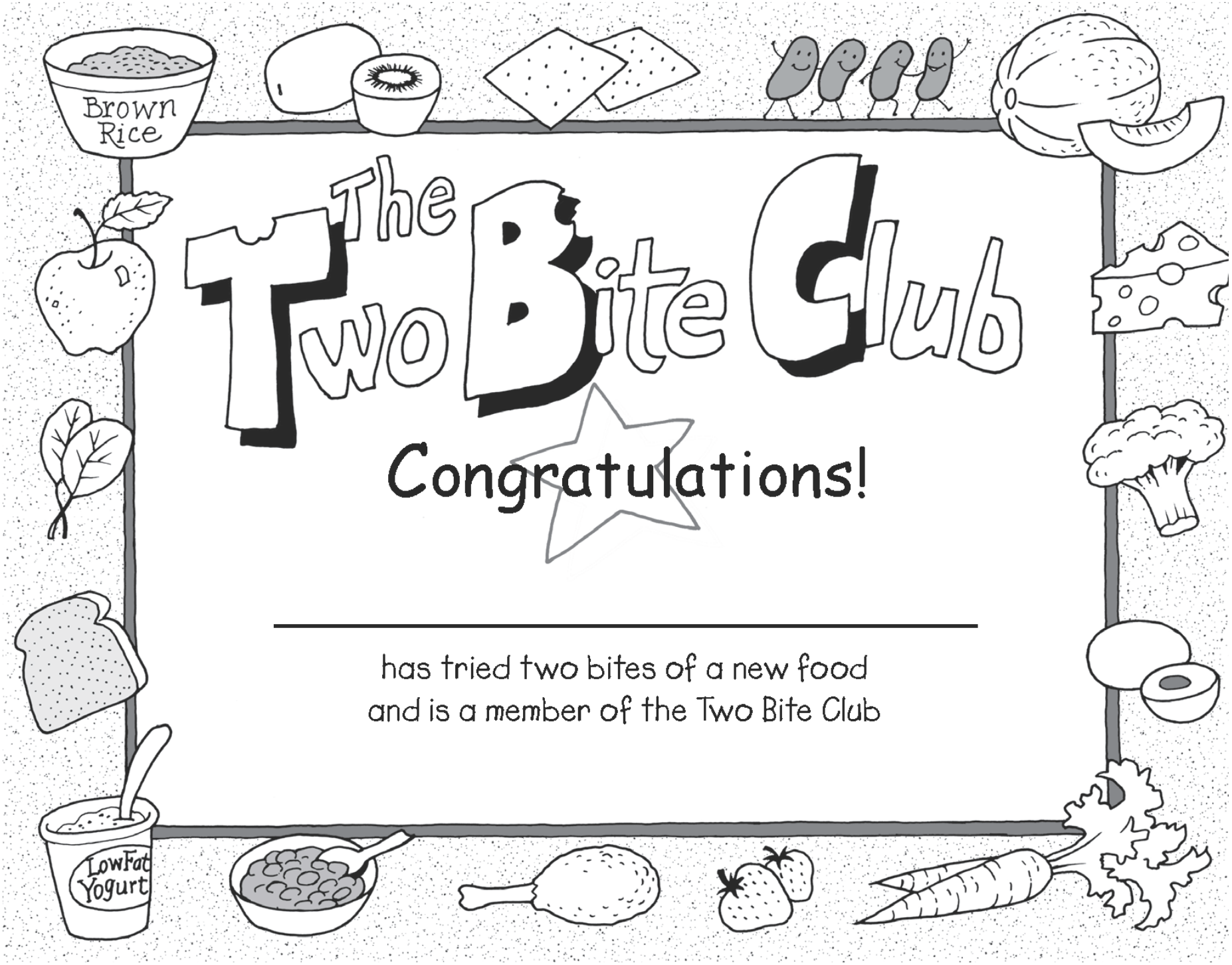
    b. Tomatoes are thought to originate in Peru. The name comes from the Aztec "xitomatl," which means "plump thing with a navel".

4. Ask kids some of the ways they typically eat tomatoes? (in sandwiches, salads, Mexican food, pasta and pizza sauce).

5. Discuss other healthy ways to eat tomatoes, such as a snack (raw cherry tomatoes) or a veggie dip (tomato salsa mixed with low fat yogurt). If time allows, prepare the veggie dip for kids to try.

Hand out a "Two-Bite Club" certificate to each child who has AT LEAST two bites of healthy tomatoes! (Certificate is on page 2, below)

Adapted from: https://www.healthykidschallenge.com/tasty-tomato-activity-kids



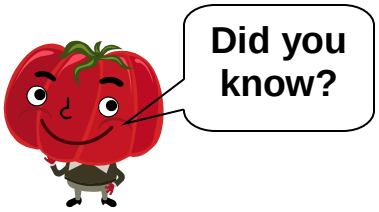
The Two Bite Club

Congratulations!

_____

has tried two bites of a new food
and is a member of the Two Bite Club

Tomatoes



- One cup of tomatoes is an excellent source of vitamins A and C.
- Tomatoes contain antioxidants that may decrease the risk of certain cancers and heart disease.

Take A Survey

Ask the students in your class whether or not they like tomatoes.
Record a tally mark for each answer in the yes or no column.

Yes, I like tomatoes.	No, I don't like tomatoes.	Total

Write a complete sentence about one way you will eat tomatoes this week.
(Example: I will eat tomatoes in a salad this week.)

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COMMIT TO HEALTH

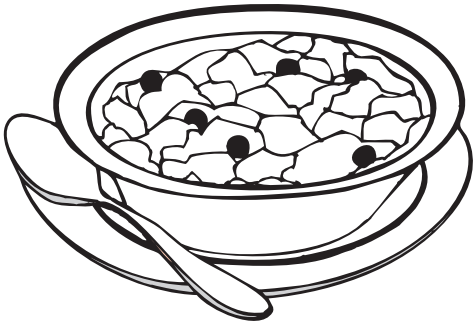
Foods of the Month
Fun, Experiential Activities

Whole Grains

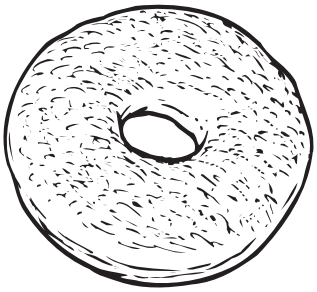
Grades 3-5

Getting Enough Whole Grain

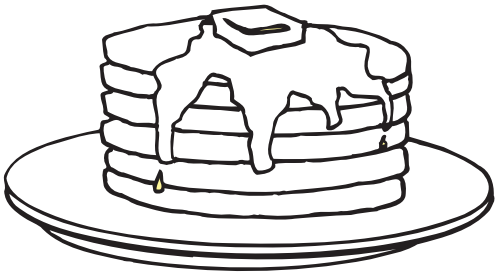
Everyone needs at least 3 servings of whole grains every day. Check out the many ways you can eat whole grains for breakfast, lunch, dinner and even snacks! Pick from foods like these...



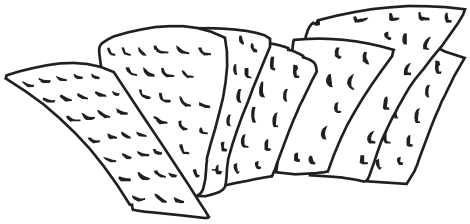
whole grain cereal, like oatmeal or cold cereal



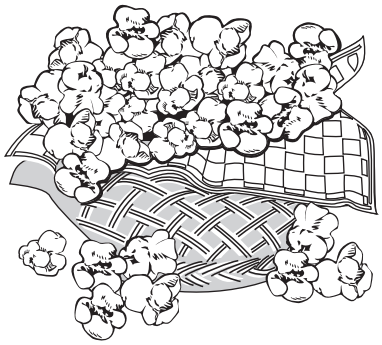
whole grain bagel



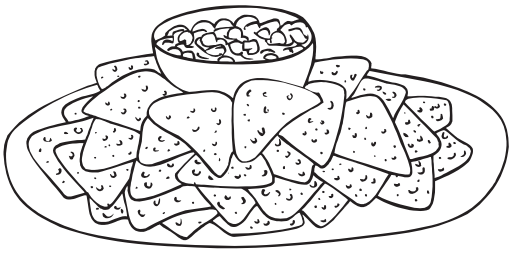
whole grain pancakes or waffles



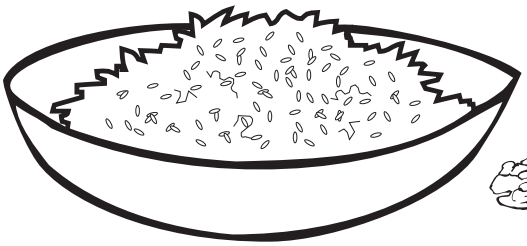
whole grain crackers



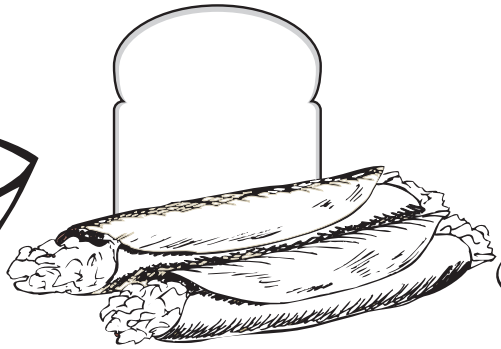
popcorn



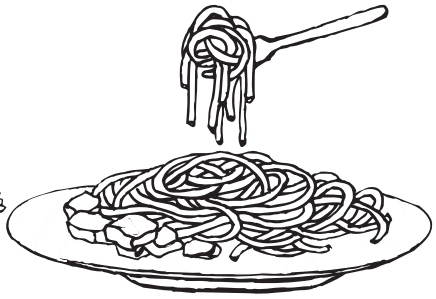
whole grain chips or pretzels



whole grain side dishes like brown rice, bulgur, quinoa or barley



whole grain bread, pita, tortillas or wraps



whole grain pasta

WHOLE GRAINS COUNCIL
Whole Grains at Every Meal

Teacher's Notes

Getting Enough Whole Grain

2005 Dietary Guidelines and Whole Grains

The 2005 Dietary Guidelines for Americans call for the following whole grain servings and total grain servings. In this table, the first of each pair of numbers is the whole grain servings, and the second number is the total grain servings.

Grain Servings Recommended in Dietary Guidelines
Whole Grains - Total Grains

Age	Girls/Women	Boys/Men
2 - 3	1.5 - 3	1.5 - 3
4 - 8	2 - 4	2.5 - 5
9 - 13	3 - 5	3 - 6
14 - 18	3 - 6	3.5 - 7
19 - 30	3 - 6	4 - 8
31 - 50	3 - 6	3.5 - 7
51+	3 - 5	3 - 6

Overall the Guidelines recommend that HALF of grains eaten be whole grains. This is a minimum. "More whole grains, up to all of the grains recommended, may be selected" – but instead of enriched grains, not in addition to them.

On the handout page, we have simplified this table to focus on 3 servings a day. This is the minimum recommended for all but very young, inactive children.

Identifying Whole Grain Foods

Sometimes it's hard to know which foods are really "whole grain foods." The best way to be sure, is to look for the Whole Grain Stamp. (See www.wholegrainscouncil.org for more information about the Stamp and about identifying whole grains.)

If the product does not have the Whole Grain Stamp, look at the ingredients. If the first ingredient is one of the following, the product is most likely a whole grain food:

whole wheat or whole grain wheat
whole grain amaranth
whole grain barley
brown rice (or other colored rice)
whole grain corn, whole cornmeal
whole grain millet
oatmeal or whole oats
whole grain buckwheat
whole triticale
whole grain rye
wheatberries
whole grain quinoa
lightly pearled barley
bulgur or cracked wheat or grano
popcorn
whole grain sorghum
whole grain emmer, farro or spelt
whole Kamut® grain
wild rice

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