

Build a Burger

Objective

Students will learn about the health benefits of the different components of a hamburger and learn how to build a hamburger to make it more nutritious.

Background

Which food group does a hamburger belong to? Depending on what you like on your burger, it could have something from every food group. What do you like on your hamburger? What food group does it come from? Most hamburgers consist of ground beef and some kind of bread. Ground beef can be made from just about any part of the beef animal. The next time you go shopping with your mother or father, pay attention to the different kinds of ground beef at the meat counter.

Ground beef is high in protein, containing 18 amino acids. Eight of those are essential for human life. Niacin, Vitamin B12, thiamin and zinc are other vitamins and minerals provided by a beef patty. You can make your hamburger even more nutritious by choosing different breads and condiments. Whole wheat buns have more fiber and nutrients than buns made from white flour. Raw spinach or leafy lettuce, onions and tomatoes provide nutrients also. Cheese adds calcium and more protein.

Materials

- hamburger buns—whole wheat, sesame seed and white
- American, Swiss and Cheddar cheese
- 2-3 different varieties of leaf lettuce, raw spinach, alfalfa sprouts
- ground beef
- tomatoes
- onions
- pickles
- mustard, mayonnaise, catsup

Procedures

1. Read and discuss background and vocabulary.
2. Hand out student worksheet A.
—Students will match the clues with the products used in making hamburgers.
3. Hand out student worksheet B.
—Students will match the burger parts to the picture parts.
4. Conduct a taste test on samples of the products that make up a hamburger.
—Set up centers and have another class come in to taste the products.
—Instruct students to wash hands and prepare samples.
—Provide three types of buns (whole wheat, white, sesame seed), three

Oklahoma Academic Standards

GRADE 1

Critical Reading and Writing:
R.4,5. Research: R.2; W.2,3
Health Promotion and Disease
Prevention: 1,3. Decision-
making: 1,2. Behavior: 1
Data & Probability: 1,2,3

GRADE 2

Critical Reading and Writing:
R.5,7. Research: R.2; W.2,3
Health Promotion and Disease
Prevention: 1,3. Decision-
making: 1,2. Behavior: 1
Data & Probability: 2

GRADE 3

Critical Reading and Writing:
R.7. Research: R.2,3,4; W.2,3
Health Promotion and Disease
Prevention: 1. Decision-making:
1,2,3. Behavior: 1,2
Data & Probability: 1

GRADE 4

Critical Reading and Writing:
R.7. Research: R.2; W.2,3
Health Promotion and Disease
Prevention: 1. Decision-making:
1,2,3. Behavior: 1,2
Data & Probability: 2

Vocabulary

beef—the flesh of a steer, cow, or bull

bun—a sweet or plain small bread

catsup—a thick seasoned sauce usually made from tomatoes (also spelled ketchup)

cheese—a food made from milk usually by separating out the curd and molding it

hamburger—a sandwich consisting of a patty of ground beef in a split round bun

lettuce—a common garden vegetable related to the daisies that has crisp juicy leaves used especially in salads

mustard—a yellow sharp-tasting powder of the seeds of a common mustard used in food seasonings or in medicine

onion—a widely grown Asian herb related to the lilies and having edible bulbs that have a sharp odor and taste and are used as a vegetable and to season foods

pickle—an article of food (as a cucumber) preserved in a saltwater or vinegar

kinds of cheese (American, Swiss, Cheddar), etc.

—Visiting students will rate products according to which they like best, second best, and least.

—Students will compile the data and graph the results.

5. Provide calorie guides.

—Students will list all the things they like on their hamburgers.

—Students will look up the hamburger parts and add them up to determine the total calorie count of each of their burgers.

6. Hand out student worksheet C.

—Discuss the nutrition information on the worksheet.

—Students will draw pictures of their ideal burgers.

—Students will draw lines from the nutritional elements to the parts of the burger.

Extra Reading

Durant, Alan, and Mei Matsuoka, *Burger Boy*, Clarion, 2006.

Reiss, Mike, and Xeth Feinberg, *City of Hamburgers*, Inkwater, 2003.

Showers, Paul, and Edward Miller, *What Happens to a Hamburger?*, Collins, 2001.

Smith, Alexander McCall Smith, *The Perfect Hamburger and Other Delicious Stories*, Bloomsbury USA Childrens, 2007.

Wong, Herbert Yee, *Hamburger Heaven*, Sandpiper, 2005.

Hamburger Tasting Party: Super Student Sliders (mini-healthburgers)

Ask parents to help provide a variety of ingredients so students can build healthburgers. Start with these basic ingredients:

3 lbs. lean ground beef

seasoned salt

24 whole wheat rolls

4 tomatoes

12 slices cheese, halved

sliced dill pickles

leafy lettuce

catsup, mustard, mayonnaise

Additional healthy ingredients: leaf spinach, avocado, alfalfa sprouts, etc.

1. Mix seasoned salt into ground beef.

2. Form 24 small patties.

3. Use an electric skillet to fry hamburger patties.

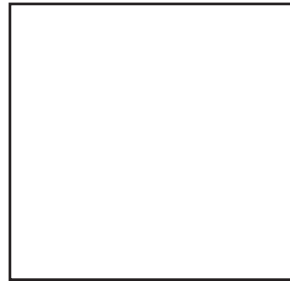
4. Students build their own burgers, keeping health in mind.

5. Invite a school nurse or nutritionist to act as judge, and give a prize for the healthiest burger.

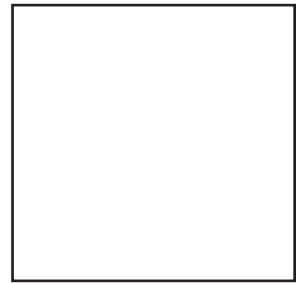
Build a Burger

Read the recipes on the recipe cards. Cut out the burger parts pictured below and match them to the correct recipe. Paste the burger parts in the boxes. Write the name of the burger part under the picture.

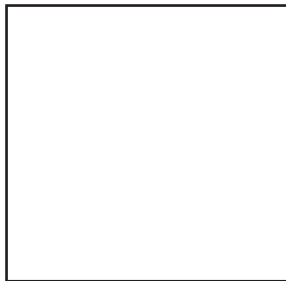
1. Mill wheat into flour. Mix the flour with yeast, water and other ingredients. Put it in a package and place it on a shelf at the grocery store to sell.



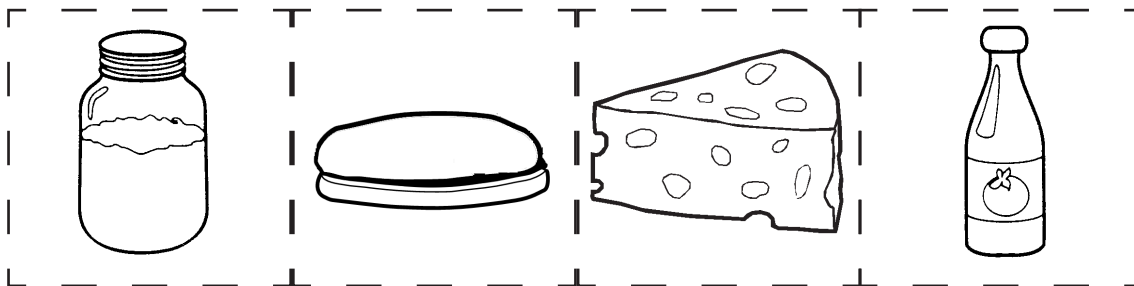
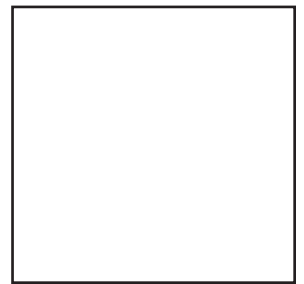
2. Add a culture to milk to separate it into curds and whey. Pour off the whey and press the curds together. Add flavorings or spices, if desired. Age the solid block to allow the flavor to develop.



4. Crush soybeans to remove their oil. Carefully mix the soybean oil with eggs, spices and other ingredients to make a white topping you can spread with a knife. Seal it in jars and send it to the supermarket.

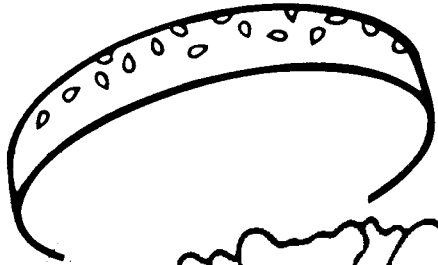


3. Cook tomatoes into a sauce. Add spice and flavorings. Pour it into a bottle and send it to the supermarket.

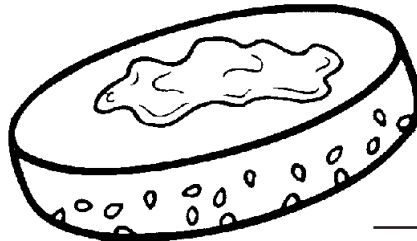
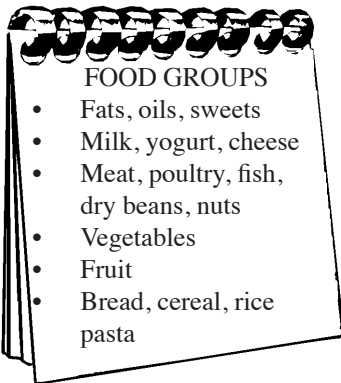
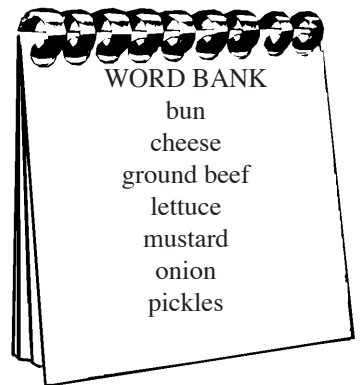
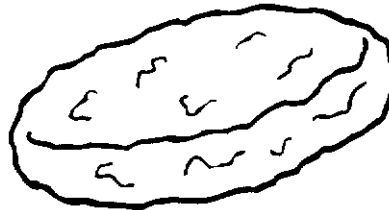
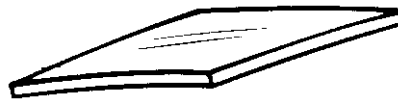
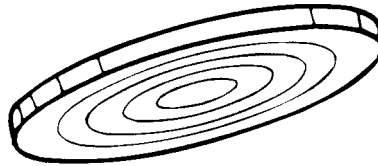
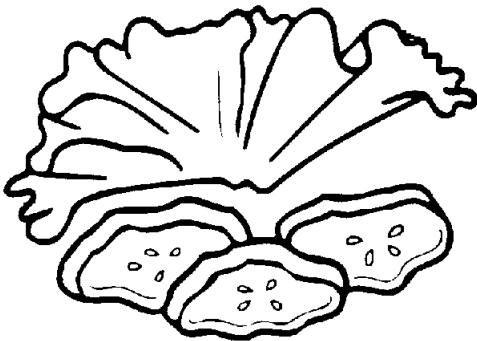


Build a Burger

A cheeseburger usually has products from all the food groups. Can you identify the parts of this cheeseburger? In the left blank write the name of the cheeseburger part. In the right blank, list the food group to which it belongs. Then color your cheeseburger.



bun / bread, cereal, rice, pasta



Build a Burger

C

NUTRITION PROVIDED BY A HAMBURGER

WHOLE WHEAT BREAD provides B vitamins, fiber and antioxidants.

TOMATOES are a rich source of several nutrients. They are well known for their high Vitamin C content but also contain significant amounts of Vitamin A. B vitamins including niacin and riboflavin, magnesium, phosphorous and calcium. Tomatoes are also a good source of chromium and folate.

BEEF is found to be very rich in Zinc, Selenium, Phosphorus, Potassium and Magnesium. Sodium and Copper are found in good quantities. Beef is one of the best source for Vitamin B12, Vitamin B6 Niacin and Riboflavin. It is also a great source of protein for your body. It is also rich in Thiamin and Pantothenic Acid. Small amounts of Vitamin E, Vitamin K and Folate are present.

CHEESE is a dairy product. It provides your body with Vitamin D and calcium.

Other items on the hamburger such as pickles, mustard, mayonnaise, catsup, etc. provide flavor and sodium.

In the space below draw a picture of a healthy hamburger. Make sure to include all the items listed above:

Draw a red line to the part that gives you protein.

Draw an orange line to the part that gives you calcium.

Draw a blue line to the part that provides fiber.

Draw a green line to the part that provides Vitamin C.

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.