

SNACK SEARCH

CONCEPT

Students will make maps to show where the agricultural products used to produce various packaged snacks are grown.

STEP-BY-STEP INSTRUCTIONS

1. Have each student bring his or her favorite packaged, processed snack to school and place them in a common area until you are ready for Step 4.
2. Hand out snack-sized candy bars. Make sure ingredients are not listed on the packages you give to students. Ask students to eat the candy bars and describe the experience—taste, texture, etc. On the chalkboard, list all the adjectives students use to describe the candy. Ask students what ingredients might have been used to give the candy bars the characteristics they have listed. (Sugar makes them sweet; caramel makes them chewy; peanuts make them crunchy.) Write answers on the chalkboard.
3. After students have listed all the ingredients they can think of, read the list of ingredients from the large bag, and share background material provided. Ask students if they think any of the ingredients might have grown in your state. How would they find out? (See list of resources for additional information. Students may also use

GRADE LEVEL

6-8

NATIONAL GEOGRAPHIC THEMES

Location, Place,
Human-environment
interaction, Regions

SUBJECTS

Geography, Language
Arts, Social Studies,
Information Skills

MATERIALS NEEDED

One large bag of
snack-sized candy
bars, enough so each
student can have one.

An assortment of
packaged, processed,
snack-size foods like
corn chips, crackers,
rice cakes, etc.

Map pencils

VOCABULARY

raw ingredient—
something that enters
into a compound or is a
component part of any
combination or mixture

RESOURCES

Corn Refiners
Association
www.corn.org

Corn World
www.ohiocorn.org

National Agriculture
Statistics Service,
www.usda.gov/nass/

The Ohio Soybean
Council
www.soyohio.org

The Sugar Association
www.sugar.org

encyclopedias or search on the internet.)

4. Hand out student worksheets. Have students retrieve the snacks they brought from home and find the answers to the questions on the student worksheet, using the resources you discussed in Step 3.
5. After students have completed their research, provide each with map pencils and a copy of a map of the US. Have each student develop a key and create a map showing which states in the US are the major producers of the ingredients found in the snack foods he or she has researched.

BACKGROUND

What makes a candy bar sweet? What makes it chewy or smooth or crunchy? Where do these ingredients grow? Agriculture has many answers to these questions.

Cultivation of **cocoa** originated in Mexico and Central America, though it is now grown in other tropical countries, especially West Africa. Cocoa is not what makes the candy bar sweet, though. Cocoa by itself has a bitter flavor. So what does makes the candy bar sweet?

While most sugar is processed from sugar cane or sugar beets, some is also made from corn. India and Cuba produce about 1/3 of all **sugar cane** today, but sugar cane also grows in four US states—Florida, Hawaii, Louisiana and Texas. **Sugar beets**, another source of sugar, grow in South America, Africa, the Near and Middle East, and in south Europe. In the US

they grow in California, Utah, Idaho, Oregon, Michigan, Minnesota, North Dakota, South Dakota, Montana, Nebraska, Wyoming, Texas, New Mexico, Colorado, and Washington. Candy manufacturers also use **corn syrup** to sweeten their candy bars. Corn grows all over the US, but most of it grows in Illinois, Indiana, Iowa, Kansas, Minnesota, Missouri, Nebraska, Ohio, and South Dakota.

Soybeans are found in an amazing number of products—paint, tires, linoleum, printing ink and many processed foods, including candy bars. Soy lecithin, oil and protein are used in the production of most candy bars. Like corn, soybeans grow all over the US, but the top soybean-producing states are Arkansas, Missouri, Kansas, Iowa, Illinois, Ohio, Indiana, Minnesota, South Dakota, Louisiana and Nebraska

Dairy products are also found in most candy bars. The top dairy states in the US are California, Minnesota, Wisconsin, Iowa, New York, Pennsylvania, and Vermont.

EXTENDED ACTIVITIES

1. Have students conduct a food preference survey (favorite snack, favorite pizza, etc.) Then have students draw maps of their school and map their survey results. Students may also create pie charts or histograms to show their survey results.
2. Using state maps divided by counties and statistics from your state's Department of Agriculture or the US Department of Agriculture, have students map the top crops per county in your state.
3. Choose one crop grown in your state, and make maps showing the density of acres planted in that crop per county.
4. Have students evaluate what they have learned from

their research and divide the US into regions, based on which snack food ingredients are produced there, for example corn for corn chips and wheat for crackers grows in the Midwest; fruit grows in California or in the south; potatoes for potato chips grow in the West or Northeast; cheese is produced in the Northeast or in California; peanuts grow in the Southeast, etc.

5. Break down the ingredients of one or two favorite snacks and let students taste the ingredients independently. For example, let students taste cocoa, corn syrup, peanuts, etc.
6. Bake cookies in class to help students understand all the ingredients that go into making a snack food. As a class map the ingredients you use to make the cookies.

Name _____

SNACK SEARCH

Snack Food _____

Look at the label. Choose three ingredients. For each ingredient, name the main agricultural product used to make it. Then name five US states where the product may have originated.

Ingredient # 1. _____

Made from: _____

Grown in:

1) _____ 2) _____ 3) _____

4) _____ 5) _____

Ingredient # 2. _____

Made from: _____

Grown in:

1) _____ 2) _____ 3) _____

4) _____ 5) _____

Ingredient # 3. _____

Made from: _____

Grown in:

1) _____ 2) _____ 3) _____

4) _____ 5) _____
