

COOKING IN THE CLASSROOM

Asian Style Slaw

Prep time: 10 – 15 minutes

Equipment needs: cutting board, knife, measuring spoons, large bowl and Dixie cups for samples

1 bunch (6 large) scallions, trimmed and thinly sliced

1 cabbage thinly sliced or 2 (16-ounce) bags coleslaw mix or 1 (16-ounce) bag each of shredded green and shredded red cabbage

1 small red onion, thinly sliced

1/4 cup soy sauce

1/4 cup lemon juice

1/4 cup vegetable oil

2 Tbsp. grated fresh ginger (from about a 1-inch piece)

2 Tbsp. white vinegar

2 Tbsp. dark brown sugar

2 tsp. Asian sesame oil

2 tsp. sesame seeds, optional

1 teaspoon salt

20 grinds black pepper

Toss the cabbage, the red onion and scallions together in a large bowl until everything is thoroughly mixed. Stir the remaining ingredients together in a small bowl until blended, then pour over the vegetables. Serve.

Cabbage

HOW IT'S GROWN

Cabbage is the most easily grown vegetable of the Mustard family. It is a cool-season crop that matures prior to extreme heat. Cool-season crops are grown for vegetative parts, including the roots (carrots), leaves (cabbages), stems (celery), and immature flowers (broccoli). Due to smaller plant size and shallow roots, cabbages are often started from seeds indoors.

Growing Cabbage Heads

Temperature: Grows best at 50 to 75 F

Soil: Sandy loam or raised clay soil beds; requires added compost and moisture

Exposure: Full sun or partial shade

Planting: Seedlings spaced 1 to 2 feet apart; rows spaced 2 to 3 feet apart

Days to maturity: 50 to 90 days

Harvest period: Average two crops per year (winter and spring)

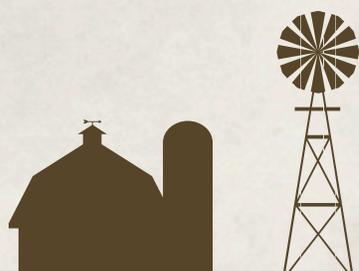
Harvesting: Hand-harvested and field packed



- Most of the time cabbage is grown in a greenhouse in the early spring and the starts or “baby” plants are transplanted outside. It is one of the first plants we plant in the beginning of the gardening season.
- Cabbage is high in beta-carotene, vitamin C and fiber. Beta-Carotene is good for your eyes, Vitamin C is good for your immune system and fiber helps your digestion.
- Cabbage is often used to make coleslaw and the most popular and successful method of preserving cabbage is pickling it to make sauerkraut.
- Dutch sailors would take sauerkraut with them on long voyages and it help them prevent scurvy. Russians ate a fermented cabbage soup that sustained them through harsh winters from the 14th–19th centuries.
- The Greeks and Romans praised cabbage for its medicinal properties. Cabbage contains “glutamine”, an amino acid which has anti-inflammatory properties and has been used in European folk medicine to wrap around inflamed areas of the body.

DID YOU KNOW?

- Cabbage is a round leafy vegetable. Most of the time it is green but it can also be red in color.
- The leaves of cabbage and baby cabbage look a lot like their relative the broccoli plant. It is also in the same family as Brussels sprouts, collards, cauliflower and kale.
- Cabbage is a very hardy plant, meaning it can grow even when it’s cold outside. It is very well suited to growing in Washington which has cool weather in the spring and fall.



STUDENT SLEUTH

Purple and red cabbages contain anthocyanins. What are anthocyanins and what do they appear to do for the mind and body? Identify other fruits and vegetables that contain anthocyanins and develop a plan to try at least one in the next week.

How many of you have tried sauerkraut? If we wanted to make it in the classroom, what ingredients and supplies do we need?

BOTANICAL FACTS

Family: Brassicaceae

Genus: Brassica

Species: Brassica oleracea

Group: Capitata

Cabbage is a cole crop of the Mustard family (Brassicaceae) and its varietal name, *B. oleracea Capitata*, distinguishes this cruciferous vegetable as being "in the form of a head." (The Brassicaceae family was formerly called Cruciferae.) The word cabbage derives from the French word *caboche* meaning "head."

SCHOOL GARDEN

Cabbage needs cool weather to grow. Whether cabbage is grown in the garden or purchased from the store, it is an important vegetable that can be eaten raw or cooked.

The cabbage family tends to be high in vitamins C and K and has many other ingredients that help the body fight disease. The outer leaves of the green and red cabbages tend to be a darker color than the newer, inside leaves where the light does not reach them.

Fresh cabbage heads from the garden have many open leaves that can be eaten. These are the first leaves that appear as the cabbage head develops. When cabbage is purchased at the store; the darker outer leaves that are not tight against the head have generally been removed so just the compact head is seen.

ACTIVITY: INVESTIGATING CABBAGE

Rinse a red cabbage.

Slice the cabbage in half, lengthwise. Hint, turn the cabbage root side up and slice in half.

Have each group look at their half and take turns peeling the layers off.

Compare the textures and colors of inner and outer leaves.

Taste the different layers and compare intensity of taste.

Compare Nutrition Facts labels.



JUST THE FACTS

Many vegetables evolved from the original wild cabbage including broccoli, Brussels sprouts, cauliflower, collard greens, kale, and kohlrabi.

All cole crops can be cross-bred, making it easy and economical to develop new cabbage varieties*.

Primary uses of cabbages include processed coleslaw (40-45%), fresh head (35%), sauerkraut (12%), various fresh-cut products (5-10%), and dried (less than 5%).

Cabbage is an excellent source of vitamin C. It also contains significant amounts of glutamine, an amino acid that has anti-inflammatory properties.

Sources: www.fruitsandveggiesmatter.gov/month/cabbage.html and www.ers.usda.gov/Briefing/Vegetables/readings.htm

LITERATURE LINKS

Tiny Green Thumbs by C.Z. Guest

What is a Plant? by Bobby Kalman.



ADVENTUROUS ACTIVITIES

SCIENCE INVESTIGATION:

Use cabbage juice to determine whether a substance is an acid or base.

MATERIALS:

Can opener, 1 can red cabbage (not sauerkraut), colander, small bowl, measuring spoons, 3 glass jars, 1 tablespoon vinegar, 1 tablespoon baking soda, 1 tablespoon distilled water

PROCEDURE:

Open can of cabbage.

Use colander to drain cabbage juice into bowl. Save juice for experiment.

Put two tablespoons (30ml) of cabbage juice into each glass jar.

Add vinegar to first jar. Record color of juice.

Add baking soda to second jar. Record juice color.

Add distilled water to third jar. Record juice color.

Discuss results.

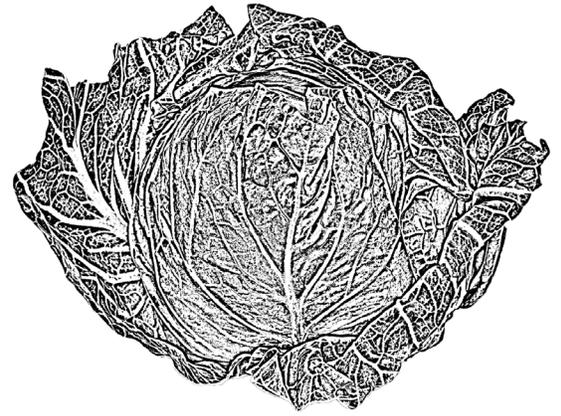
Source: *The Science Chef Travels Around the World*, Joan D'Amico and Karen Drummond, 1996.

Thanks to the Harvest of the Month program in California for much of the information included in this document. (http://www.harvestofthemonth.cdph.ca.gov/download/Winter/Cabbages/Cabbage%20-%20Educator's%20Newsletter_Final.pdf)



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Name _____



Cabbage

Handwriting practice lines consisting of solid top and bottom lines with a dashed middle line, repeated multiple times for practice.