

Grade 8

Arts and Crafts Standards

Activity	South Carolina State Visual and Performing Arts Standard
Create paintings and drawings of garden plants	Standard VA8-1
Paint a class garden mural to hang in the hallway for parents' night	Standard VA8-1
Make a seed mosaic	Standard VA8-1
Create a color wheel collage using pictures from old seed catalogs	Standard VA8-1
Make prints using paint and stamps made from various plant parts	Standard VA8-1
Draw your dream garden	Standard VA8-1
Build clay or tissue paper models of flowers	Standard VA8-1
Use leaves to make crayon rubbings or fossils in clay	Standard VA8-1
Paint a classroom mural using samples of different soils as the medium	Standard VA8-1
Design labels for plants to mark plantings	Standard VA8-1
Design T-shirts for your garden program	Standard VA8-1
Design a logo for your garden	Standard VA8-1
Paint rocks to use as garden borders	Standard VA8-1
Put together a photo essay of the garden	Standard VA8-1
Design and build a garden project: birdhouse, birdbath, birdfeeder, solar oven, garden sculpture, cold frame, weather station, etc	Standard VA8-1

English/Language Arts Standards

Activity	South Carolina Academic Standard for English Language Arts
Keep daily garden journals documenting observations, weather conditions, and classroom activities	Writing Standard 8-4 Writing Standard 8-5
Write, compile, and illustrate a collection of garden poems and stories	Writing Standard 8-4 Writing Standard 8-5
Study and learn how to use seed catalogs	Reading Standard 8-2 Researching Standard 8-6

Write and compile a class gardening book with gardening skills and advice	Writing Standard 8-4 Writing Standard 8-5
Contact and write to a pen pal in another school garden program	Writing Standard 8-4 Writing Standard 8-5
Read the daily newspaper and bring in any articles related to gardening, food, farming, nutrition, hunger, etc.	Reading Standard 8-2 Researching Standard 8-6
Research the growing habits of the school garden plants using the Internet and reference material	Reading Standard 8-2 Researching Standard 8-6
Write letters to local merchants explaining the school gardening program and asking for donations	Writing Standard 8-4 Writing Standard 8-5
Write thank you notes to volunteers and garden sponsors	Writing Standard 8-4 Writing Standard 8-5
Brainstorm different adjectives to describe each plant in your garden	Reading Standard 8-1 Writing Standard 8-5
Study a new vocabulary that relates to plants and gardens	Reading Standard 8-3
Publish a class newsletter with student articles about the garden and distribute it to other classrooms and parents	Writing Standard 8-4 Writing Standard 8-5
Write step-by-step instructions for common garden activities	Writing Standard 8-4 Writing Standard 8-5
Follow written instructions to perform a garden task like planting seeds	Reading Standard 8-2
Read books and stories about plants and gardens	Reading Standard 8-1 Reading Standard 8-2
Write a research paper on a favorite plant, including source citations	Writing Standard 8-4 Writing Standard 8-5 Researching Standard 8-6
Prepare and deliver a presentation about the garden for other students, teachers, and parents	Writing Standard 8-4 Writing Standard 8-5
Learn about the origins of scientific plant names	Researching Standard 8-6
Read a garden magazine article highlighting a plant and distinguish between the facts and opinions presented by the writer	Reading Standard 8-2 Researching Standard 8-6
Research the nutritional value of your favorite garden vegetable and then write a script for a 60 second advertisement designed to get more people to grow and eat it	Writing Standard 8-4 Writing Standard 8-5 Researching Standard 8-6

Health/Nutrition Standards

Activity	South Carolina Academic Standards for Health and Safety Education
Conduct a blindfolded taste test using classroom-grown vegetables and supermarket vegetables	Standard N-8.2
Grow a salad garden and give students a chance to sample the harvest with a salad party	Standard N-8.4
Invite a grocery store employee to talk to the class about where their products come from	Standard N-8.2
Visit a local farm	Standard N-8.2
Create brochures with information on daily food intake recommendations	Standard N-8.1, N-8.4
Plan a day's menu that includes all components of a balanced diet	Standard N-8.1, N-8.6
Keep food journals that highlight how many fruits and vegetables are eaten and describe any new produce tried	Standard N-8.4, N-8.6, N-8.7
Invite chefs from the community to do cooking demonstrations for students and parents	Standard N-8.2, N-8.4
Ask cafeteria managers to share safe food handling information and provide tours of school kitchens	Standard P-8.7, P-8.8
Invite a registered dietitian to visit classrooms and discuss healthy food choices and healthy preparation methods in connection with MyPyramid.gov	Standard N-8.1, N-8.6, N-8.7
Create a classroom or school recipe book that features produce grown in school gardens	Standard N-8.4
Use MyPyramid.gov to help you choose a healthy diet	Standard N-8.1, N-8.6, N-8.7
Come up with tasty recipes that use lots of fruits and vegetables and little fat or sugar	Standard N-8.4, N-8.6
Identify cultural dishes and their preparation methods	Standard N-8.2
Host an international day and provide samplings of fruits and vegetables from those cultures	Standard N-8.2, N-8.4
Visit a local farmers' market or start a	Standard N-8.2

school farmers' market	
Grow and use fresh herbs to flavor your dishes with natural ingredients and decrease the use of salt in recipes	Standard N-8.4, N-8.6
Create a school announcement promoting fruits and vegetables	Standard N-8.2

Mathematics Standards

Activity	South Carolina Academic Standard for Mathematics
Measure the growth rates of plants and display results on different types of graphs	Data Analysis and Probability Standard 8-6
Make predictions regarding future growth	Data Analysis and Probability Standard 8-6
Use standard and nonstandard units of measurement	Mathematical Processes Standard 8-1
Design a sun dial	Mathematical Processes Standard 8-1
Tally cricket chirps to estimate temperature	Mathematical Processes Standard 8-1
Host a bean race	Mathematical Processes Standard 8-1
Plant a number of beans at the base of a trellis and track their growth on a chart	Mathematical Processes Standard 8-1
Determine the rate of growth and award the fastest plant a blue ribbon	Number and Operations Standard 8-2
Using information from seed catalogs, predict dates of germination and maturity	Mathematical Processes Standard 8-1
Plan backward from a desired harvest date to determine when each crop should be planted	Mathematical Processes Standard 8-1
Measure your garden parameters and calculate the area	Measurement Standard 8-5
Use graph paper to make a map to scale of your garden	Mathematical Processes Standard 8-1
Calculate amounts of fertilizer to use per quart and per liter of water	Measurement Standard 8-5
Chart temperatures of the air and soil in your garden in Fahrenheit and centigrad	Mathematical Processes Standard 8-1
Determine the weight and volume of soil mix when wet and dry	Measurement Standard 8-5
Determine the volume of soil in a	Measurement Standard 8-5

rectangular window box	
Investigate vegetable prices in a supermarket	Mathematical Processes Standard 8-1
Track the amount of produce harvested in your garden and use the market prices to determine the value of your harvest	Mathematical Processes Standard 8-1
Count the number of seeds planted and the number of seeds that sprout and calculate the germination rate	Mathematical Processes Standard 8-1
Calculate serving sizes of different fruits and vegetables using common cooking supplies	Mathematical Processes Standard 8-1
Measure the height of a group of plants and determine the mean, median and mode	Data Analysis and Probability Standard 8-6
Make a recipe that uses fruits and vegetables from the garden and requires various measuring techniques	Mathematical Processes Standard 8-1

Music/Drama Standards

Activity	South Carolina State Visual and Performing Arts Standards
Make musical instruments from gourds and learn to play them	Standard MG8-1
Create and perform a garden-inspired dance expressing the growth of a seed or the opening of a flower bud	Standard D8-1, Standard D8-2, Standard D8-3, Standard D8-7
Pantomime various gardening tasks (transplanting, fertilizing, sowing seeds, pollinating)	Standard T8-2, Standard T8-6
Learn a collection of songs that relate to food, gardens, and the environment	Standard MG8-1, Standard MG8-6
Listen to the music of composers inspired by nature	Standard MG8-4, Standard MG8-6
Create a skit about food safety	Standard T8-1, Standard T8-6
Using a movie camera with single-frame capability, make a time-lapse film of a plant growing	
Write parodies of well-known songs, turning them into a gardening song	Standard MG8-1, Standard MG8-2, Standard MG8-6
Hold a harvest festival square dance	Standard D8-5
Take a garden-themed piece of children's literature and do readers theater with it	Standard T8-2

Science Standards

Earth Science	
Activity	South Carolina Science Academic Standards
Create a garden weather station. Record daily measurements and compare conditions with plant growth	Scientific Inquiry Standard 8-1
Compare and contrast the properties of different types of soils (density, air space, presence of living organisms, composition, texture, smell, appearance)	Scientific Inquiry Standard 8-1 Earth's Biological History Standard 8-2
Simulate soil erosion in your classroom garden	Scientific Inquiry Standard 8-1
Observe the difference in soil loss when water is splashed on a tilted, planted pot and on a tilted unplanted pot	Scientific Inquiry Standard 8-1
Study local geology and put together a display of the soil and rock types found in your area	Scientific Inquiry Standard 8-1 Earth's Structures and Processes Standard 8-3
Life Science	
Distinguish and describe differences and similarities between living and non-living things	Scientific Inquiry Standard 8-1
Observe the life cycles of plants using fast-growing plants in your classroom	Scientific Inquiry Standard 8-1
Study the various conditions that different plants need in order to grow	Scientific Inquiry Standard 8-1
Compare the things people need to the things plants need	Scientific Inquiry Standard 8-1
Create experiments investigating what happens when plants are exposed to different amounts of light, water, space, and nutrients	Scientific Inquiry Standard 8-1 Earth's Biological History Standard 8-2
Investigate the functions of different plant structures (cotyledons, roots, stems, leaves, flowers, fruits and seeds)	Scientific Inquiry Standard 8-1
Dissect flowers and seeds and create experiments to investigate how light, heat, and moisture affect germination	Scientific Inquiry Standard 8-1
Explain to students that some characteristics are inherited and others are caused by the environment	Scientific Inquiry Standard 8-1 Earth's Biological History Standard 8-2

Discuss photosynthesis	Scientific Inquiry Standard 8-1
Discuss how plants adapt for survival	Scientific Inquiry Standard 8-1 Earth's Biological History Standard 8-2
Research adaptations of seeds for dispersal and adaptations of flowers for attracting pollinators	Scientific Inquiry Standard 8-1 Earth's Biological History Standard 8-2
Observe pollinators in the garden	Scientific Inquiry Standard 8-1
Investigate the impact of environmental changes on plants	Scientific Inquiry Standard 8-1 Earth's Biological History Standard 8-2
Study wildlife and insects along with their habitats	Scientific Inquiry Standard 8-1
Investigate food chains and webs	Scientific Inquiry Standard 8-1
Demonstrate how plants are the primary source of energy for all food chains	Scientific Inquiry Standard 8-1
Raise and then release beneficial insects into the garden	Scientific Inquiry Standard 8-1
Physical Science	
Use litmus paper or a test kit to test the pH of different soils. Investigate how plants response to soils with different pH levels	Scientific Inquiry Standard 8-1 Earth's Biological History Standard 8-2
Simulate the water cycle in the indoor garden by covering it with a dome of clear plastic	Scientific Inquiry Standard 8-1
Cover pots with cellophane of different colors to screen out all but one wavelength of light from plants and observe plant growth	Scientific Inquiry Standard 8-1
Observe how energy changes to matter during photosynthesis	Scientific Inquiry Standard 8-1

Social Studies Standards

Activity	South Carolina Social Studies Academic Standard
Research and report on cultural or ethnic differences in food consumption and agricultural production	Standard 8-1
Research agricultural history and create a timeline of important events	Standard 8-1 Standard 8-4
Visit some local farms and interview farmers about choice of crops. Growing practices, marketing and farm history	Standard 8-4 (ag in antebellum SC) Standard 8-5 (sharecropping)
Study the contribution of Native	Standard 8-1

American foods and other cultures' foods to our history and diet and grow samples in the school garden	
Discover where classroom plants originated, the impact they've had on our diets, and how today's varieties differ from the original plants	Standard 8-1 (trade)
Locate the origins of classroom plants on a map and then trace their movement around the world	Standard 8-1 (trade)
Use the Thanksgiving holiday to explore meals throughout history and the different crops grown and harvested at that time of the year	Standard 8-1 (Native Americans)
As a class, develop garden rules and then vote on them	Standard 8-2 (Creation of a new US government)

Other fun garden activities

- Compare the importance of nutrients in the health of humans and plants
- Study the nutritional value of the various crops in your garden
- Identify the parts of the plant represented by common fruits and vegetables
- Discuss the difference in nutritional value of various plant parts
- Study adaptations of plant parts that make them good food sources
- Sprout various seeds for eating
- Experiment with food preservation techniques, such as drying, freezing and canning
- Coordinate a cooking lesson in your school's kitchen using the produce your class has grown
- Compare the nutritional content of different colors of a specific variety of vegetables grown
- Graph the Vitamin A content in the lighter colored greens and in the darker greens
- Research and compare fruits and vegetables with various origins
- **Research the use of various uses of herbs and spices in different cultures**
- Contact, report on or volunteer services at a local food bank, gleaning project, and food cooperative
- **Research and populate the garden with decorations representative of other cultures**
- Research the history of classroom garden plants
- Complete a site analysis of the school garden and create a garden map noting important features, including a north arrow
- Trace the path of a fruit or vegetable from the field to the table
- Use the classroom garden to complement a study of the influence of climate on food production

- Interview experienced community members, local farmers, or senior citizens about their gardening/farming experiences
- Research and report on how other cultures use and control insects