

## **Kindergarten**

### **Arts and Crafts Standards**

Activity	South Carolina State Visual and Performing Arts Standard
Create paintings and drawings of garden plants	Standard VAK-1
Paint a class garden mural to hang in the hallway for parents' night	Standard VAK-1
Make a seed mosaic	Standard VAK-1
Create a color wheel collage using pictures from old seed catalogs	Standard VAK-1
Make prints using paint and stamps made from various plant parts	Standard VAK-1
Draw your dream garden	Standard VAK-1
Build clay or tissue paper models of flowers	Standard VAK-1
Use leaves to make crayon rubbings or fossils in clay	Standard VAK-1
Paint a classroom mural using samples of different soils as the medium	Standard VAK-1
Design labels for plants to mark plantings	Standard VAK-1
Design T-shirts for your garden program	Standard VAK-1
Design a logo for your garden	Standard VAK-1
Paint rocks to use as garden borders	Standard VAK-1
Put together a photo essay of the garden	Standard VAK-1
Design and build a garden project: birdhouse, birdbath, birdfeeder, solar oven, garden sculpture, cold frame, weather station, etc	Standard VAK-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 K-4
Write, compile, and illustrate a collection of garden poems and stories	Writing Standard K-5
Study and learn how to use seed catalogs	Reading Standard K-2 Researching Standard K-6

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

## Health/Nutrition Standards

Activity	South Carolina Academic Standards for Health and Safety Education
Compare the importance of nutrients in the health of humans and plants	Standard N-K1, Standard N-K7
Study the nutritional value of the various crops in your garden	Standard N-K1
Identify the parts of the plant represented by common fruits and vegetables	Science Standard K-2
Discuss the difference in nutritional value of various plant parts	Standard N-K1
Study adaptations of plant parts that make them good food sources	Science Standard K-2
Sprout various seeds for eating	
Conduct a blindfolded taste test using classroom-grown vegetables and supermarket vegetables	Science Standard K-3
Grow a salad garden and give students a chance to sample the harvest with a salad party	Standard N-K1, Standard N-K7
Create brochures with information on daily food intake recommendations	Standard N-K1
Plan a day's menu that includes all components of a balanced diet	Standard N-K1, Standard N-K7
Keep food journals that highlight how many fruits and vegetables are eaten and describe any new produce tried	Standard N-K1
Use MyPyramid.gov to help you choose a healthy diet	Standard N-K1, Standard N-K7
Come up with tasty recipes that use lots of fruits and vegetables and little fat or sugar	Standard N-K7
Compare the nutritional content of different colors of a specific variety of vegetables grown	Science Standard K-2
Graph the Vitamin A content in the lighter colored greens and in the darker greens	Science Standard K-2
Contrast this with other vegetables	Science Standard K-2
Research and compare fruits and vegetables with various origins	Science Standard K-2
Identify cultural dishes and their preparation methods	
Host an international day and provide	Science Standard K-3

samplings of fruits and vegetables from those cultures	
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### Mathematics Standards

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

supermarket	
Track the amount of produce harvested in your garden and use the market prices to determine the value of your harvest	Mathematical Processes Standard K-1 Measurement Standard K-5
Count the number of seeds planted and the number of seeds that sprout and calculate the germination rate	Measurement Standard K-5
Calculate serving sizes of different fruits and vegetables using common cooking supplies	Mathematical Processes Standard K-1 Measurement Standard K-5
Measure the height of a group of plants and determine the mean, median and mode	Measurement Standard K-5
Make a recipe that uses fruits and vegetables from the garden and requires various measuring techniques	Measurement Standard K-5

### **Music/Drama Standards**

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

## Science Standards

Earth Science	
Activity	South Carolina Science Academic Standard
Create a garden weather station. Record daily measurements and compare conditions with plant growth	Scientific Inquiry Standard K-1, 1.1, 1.2, 1.3, 1.4, 1.5 Characteristics of Organisms Standard K-2, 2.1, 2.3, 2.4, 2.5 Seasonal Changes Standard K-4, 4.1, 4.2, 4.3 Exploring Matter Standard K-5, 5.1
Compare and contrast the properties of different types of soils (density, air space, presence of living organisms, composition, texture, smell, appearance)	Scientific Inquiry Standard K-1, 1.1, 1.2, 1.3, 1.4, 1.5 Characteristics of Organisms Standard K-2, 2.1 Exploring Matter Standard K-5, 5.1, 5.2
Simulate soil erosion in your classroom garden	Scientific Inquiry Standard K-1, 1.1, 1.2, 1.3, 1.4, 1.5
Observe the difference in soil loss when water is splashed on a tilted, planted pot and on a tilted unplanted pot	Scientific Inquiry Standard K-1, 1.1, 1.2, 1.3, 1.4, 1.5 Exploring Matter Standard K-5, 5.1, 5.2
Study local geology and put together a display of the soil and rock types found in your area	Scientific Inquiry Standard K-1, 1.1, 1.2, 1.3, 1.4, 1.5 Exploring Matter Standard K-5, 5.1, 5.2
Life Science	
Distinguish and describe differences and similarities between living and non-living things	Scientific Inquiry Standard K-1, 1.1, 1.2, 1.3, 1.4, 1.5 Characteristics of Organisms Standard K-2, 2.2 Exploring Matter Standard K-5, 5.1
Observe the life cycles of plants using fast-growing plants in your classroom	Scientific Inquiry Standard K-1, 1.1, 1.2, 1.3, 1.4, 1.5 Characteristics of Organisms Standard K-2, 2.5
Study the various conditions that different plants need in order to grow	Scientific Inquiry Standard K-1, 1.1, 1.2, 1.3, 1.4, 1.5 Characteristics of Organisms Standard K-2, 2.1 Seasonal Changes Standard K-4, 4.3
Compare the things people need to the things people need	Scientific Inquiry Standard K-1, 1.4 Characteristics of Organisms Standard K-2, 2.2, 2.5 Seasonal Changes Standard K-4, 4.3

Create experiments investigating what happens when plants are exposed to different amounts of light, water, space, and nutrients	Scientific Inquiry Standard K-1, 1.1, 1.2, 1.3, 1.4, 1.5 Characteristics of Organisms Standard K-2, 2.1
Investigate the functions of different plant structures (cotyledons, roots, stems, leaves, flowers, fruits and seeds)	Scientific Inquiry Standard K-1, 1.1, 1.4, 1.5 Characteristics of Organisms Standard K-2, 2.3, 2.4
Dissect flowers and seeds and create experiments to investigate how light, heat, and moisture affect germination	Scientific Inquiry Standard K-1, 1.1, 1.2, 1.3, 1.4, 1.5 Characteristics of Organisms Standard K-2, 2.1 Seasonal Changes Standard K-4, 4.3
Explain to students that some characteristics are inherited and others are caused by the environment	Characteristics of Organisms Standard K-2, 2.1, 2.3, 2.4
Discuss photosynthesis	Characteristics of Organisms Standard K-2, 2.1 Seasonal Changes Standard K-4, 4.3
Discuss how plants adapt for survival	Characteristics of Organisms Standard K-2, 2.3, 2.4
Research adaptations of seeds for dispersal and adaptations of flowers for attracting pollinators	Scientific Inquiry Standard K-1, 1.1, 1.2, 1.3, 1.4, 1.5 Characteristics of Organisms Standard K-2, 2.3, 2.4
Observe pollinators in the garden	Scientific Inquiry Standard K-1, 1.1, 1.2, 1.3, 1.4, 1.5
Investigate the impact of environmental changes on plants	Scientific Inquiry Standard K-1, 1.1, 1.2, 1.3, 1.4, 1.5 Characteristics of Organisms Standard K-2, 2.1 Seasonal Changes Standard K-4, 4.3
Study wildlife and insects along with their habitats	Characteristics of Organisms Standard K-2, 2.2, 2.5
Investigate food chains and webs	Characteristics of Organisms Standard K-2, 2.1, 2.2, 2.5
Demonstrate how plants are the primary source of energy for all food chains	Characteristics of Organisms Standard K-2, 2.1, 2.2
Raise and then release beneficial insects into the garden	Scientific Inquiry Standard K-1, 1.2 Characteristics of Organisms Standard K-2, 2.1
Physical Science	
Use litmus paper or a test kit to test the pH of different soils. Investigate how plants response to soils with different	Scientific Inquiry Standard K-1, 1.1, 1.2, 1.3, 1.4, 1.5 Characteristics of Organisms Standard

pH levels	K-2, 2.1
Simulate the water cycle in the indoor garden by covering it with a dome of clear plastic	Scientific Inquiry Standard K-1, 1.1, 1.2, 1.3, 1.4, 1.5 Characteristics of Organisms Standard K-2, 2.1 Seasonal Changes Standard K-4, 4.3
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 K-1, 1.1, 1.2, 1.3, 1.4, 1.5 Characteristics of Organisms Standard K-2, 2.1 Seasonal Changes Standard K-4, 4.3
Observe how energy changes to matter during photosynthesis	Characteristics of Organisms Standard K-2, 2.1 Seasonal Changes Standard K-4, 4.3

### History/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 K-1, Standard K-4
Research agricultural history and create a timeline of important events	Standard K-4
Research the use of various uses of herbs and spices in different cultures	Standard K-4
Visit some local farms and interview farmers about choice of crops. Growing practices, marketing and farm history	Standard K-1
Contact, report on or volunteer services at a local food bank, gleaning project, and food cooperative	Standard K-1
Study the contribution of Native American foods and other cultures' foods to our history and diet and grow samples in the school garden	Standard K-4
Research and populate the garden with decorations representative of other cultures	Standard K-4
Research the history of classroom garden plants	Standard K-1
Discover where classroom plants originated, the impact they've had on our diets, and how today's varieties differ from the original plants	Standard K-1

Locate the origins of classroom plants on a map and then trace their movement around the world	Standard K-1
Use the Thanksgiving holiday to explore meals throughout history and the different crops grown and harvested at that time of the year	Standard K-4
Complete a site analysis of the school garden and create a garden map noting important features, including a north arrow	Standard K-1
Trace the path of a fruit or vegetable from the field to the table	Standard K-1
As a class, develop garden rules and then vote on them	Standard K-2, Standard K-3
Interview experienced community members, local farmers, or senior citizens about their gardening/farming experiences	Standard K-2, Standard K-4
Research and report on how other cultures use and control insects	Standard K-4

**Other fun garden activities:**

- Sprout various seeds for eating
- Experiment with food preservation techniques, such as drying, freezing and canning
- Invite a grocery store employee to talk to the class about where their products come from
- Visit a local farm
- Invite chefs from the community to do cooking demonstrations for students and parents
- Coordinate a cooking lesson in your school's kitchen using the produce your class has grown
- Ask cafeteria managers to share safe food handling information and provide tours of school kitchens
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- Invite a registered dietitian to visit classrooms and discuss healthy food choices and healthy preparation methods in connection with MyPyramid.gov
- Create a classroom or school recipe book that features produce grown in school gardens
- Identify cultural dishes and their preparation methods
- Host an international day and provide samplings of fruits and vegetables from those cultures

- Visit a local farmers' market or start a school farmers market
- Grow and use fresh herbs to flavor your dishes with natural ingredients and decrease the use of salt in recipes
- Create a school announcement promoting fruits and vegetables
- Using a movie camera with single-frame capability, make a time-lapse film of a plant growing
- Use the classroom garden to complement a study of the influence of climate on food production