

## Junior Master Gardeners<sup>sm</sup> Level 1 Teacher/Leader Guide

### Correlations: Georgia Performance Standards 3rd Grade

Plant Growth and Development				
Activity	3rd Grade Science	3rd Grade English LA	3rd Grade Math	3rd Grade Social Studies
1. <b>Hamburger Plant?</b> - To become aware of dependence on plants as the originator of most food sources				
2. <b>Benefits Mobile</b> - To be aware of the dependence all people have on plants				
3. <b>Know &amp; Show Sombrero</b> - To show an understanding of the benefits of plants to people				
4. <b>Choo-Choo Song</b> - To associate a variety of plants with their food products by learning a song		ELA3LSV1		
5. <b>The Medicine Plant</b> - To recognize the medicinal properties of the aloe vera plant				
1. <b>Leaves &amp; Seeds Sort Info Chart</b> - To be able to classify leaves and seeds as monocots & dicots				
1. <b>Plant Parts Rap</b> - To gain understanding of the main parts of a plant and role each performs	S3CS4	ELA3LSV1		
2. <b>Touch &amp; Tell</b> - To use information learned about plant parts to identify plant materials by touch				
3. <b>Plant Parts We Eat</b> - To identify the various plant parts that are used for food				
4. <b>Seed Science</b> - To use the scientific method to determine the effect on plant growth of removing the cotyledons from seeds	S3CS7			
5. <b>Flower Dissect</b> - To identify the different parts of a flower	S3CS4a			
1. <b>P.L.A.N.T. Needs</b> - To become familiar with plants' needs				
2. <b>What's Not the Same?</b> - To become familiar with variables and constants	S3CS7			
3. <b>Plant People</b> - To show an understanding of plant needs through creative arts				
4. <b>Picture Yourself a Plant</b> - To show an understanding of plant needs through creative arts				
1. <b>Coconut Float</b> - To illustrate the different ways seeds are dispersed				
2. <b>Plant Performance</b> - To develop an understanding of plant needs through creative writing		ELA3W1		

3. <b>Topiary</b> - To create living, growing works of art				
4. <b>Power Seeds</b> - To observe the force seeds exhibit in the germination process				
1. <b>Oxygen Factory</b> - To illustrate the process of photosynthesis				
2. <b>Gas Gobblers</b> - To demonstrate the interdependence people and animals share with plants through the exchange of oxygen and carbon dioxide	S3L1			
3. <b>Spinning Seeds</b> - To determine the effect of geotropism on plants				
1. <b>Paper Pot</b> - To create recyclable pots and propagate plants by seed				
2. <b>Gallon Greenhouse</b> - To show an understanding of the environment needed to propagate plants				
3. <b>Propagation Demonstration</b> - To demonstrate how to propagate plants by direct seeding, stem cuttings, leaf cuttings, root cuttings, division, and layering				

### Soils and Water

Activity	3rd Grade Science	3rd Grade English LA	3rd Grade Math	3rd Grade Social Studies
1. <b>Touchy Feely</b> - To understand soil texture and the properties of different soil types and soil particles	S3E1			
2. <b>Mud Pies</b> - To feel the difference in soil textures	S3E1			
3. <b>Shake, Rattle, and Roll</b> - To identify amounts of soil particles that make up a soil's texture	S3E1			
4. <b>Candy Aggregate</b> - To create an edible model illustrating that soil is made up of many different components	S3E1			
1. <b>Nutrient Variable</b> - To use scientific method to study the effects of fertilizer on plant growth	S3CS7			
2. <b>The Numbers on the Bag Song</b> - to gain an understanding of how nutrients in fertilizer help plants		ELA3LSV1		
3. <b>Bumps Below</b> - To become familiar with plants that produce their own nitrogen				
1. <b>Building Bins &amp; Compost Sandwiches</b> - To build a composting bin for creating organic matter to amend soil	S3L2			
2. <b>Composting Critter Page</b> - To identify organisms that are a part of the composting process.	S3L2			
3. <b>Compost Sandwich Composition</b> - To compose a	S3L2			

paragraph to support the claim that it is important to compost				
1. <b>Earth Apple</b> - To become familiar with plants' needs	S3L2			
2. <b>Cloud Maker</b> - To demonstrate the process of condensation				
3. <b>Cycle Song</b> - To gain understanding of the water cycle through music		ELA3LSV1		
4. <b>Apple Rings &amp; Banana Chips</b> - To measure the amount of water in fruit	S3CS2		M3N2	
1. <b>Out of the Spout</b> - To develop an understanding of how water moves through different soil textures	S3E1			
2. <b>Where Did It Go?</b> - To demonstrate that water can be held in air spaces in the soil			M3N2	
3. <b>Water Flows, Soil Goes</b> - To demonstrate the effects of water erosion on bare soil	S3E1d			

### Ecology and Environmental Horticulture

Activity	3rd Grade Science	3rd Grade English LA	3rd Grade Math	3rd Grade Social Studies
1. <b>Nature Class Web</b> - To create a web to understand the inter-relatedness of life on earth.	S3L1			
2. <b>Food Chain Gang</b> - To play a game represent the inter-relatedness of animals and the environment within the food chain.	S3L1			
3. <b>Polluting Your Planet</b> - To observe the effects of pollution on a model of the earth.	S3L2			
4. <b>Exploding Cactus</b> - To demonstrate how cacti are able to store water.				
5. <b>Garden Weather Station</b> - To create weather instruments and monitor weather conditions.	S3CS3			
1. <b>The Tree Community</b> - To observe the variety of life supported by a single tree.				
2. <b>Gourd Bird House</b> - To grow and build habitats for birds using gourds.				
3. <b>Our Pocket Park</b> - To beautify an outdoor area.				
4. <b>Backyard Buddy</b> - To reward environmentally friendly people.				
5. <b>Visit with a Vet</b> - To understand needs and habitats of animals in your community.	S3L1			
1. <b>On the Move</b> - To understand how pollution can create many indirect negative effects.	S3L2			
2. <b>Both Sides of the Fence</b> - To voice opinions in a debate format.		ELA3LSV1c		

3. <b>Weighing Wastes</b> - To measure amount of food wastes produced at a meal and work to reduce wastes for the future.			M3N2	
4. <b>Let's Try Organic</b> - To implement organic gardening ideas into a garden setting.				
5. <b>Xeriscape</b> - To build a garden site using water conservation concepts.	S3L2			
1. <b>Vermi-Composting</b> - To recycle food wastes with vermi-composting.	S3L2			
2. <b>Super Mowing Machine</b> - To utilize creativity to invent a new mowing machine.				
3. <b>Grow Cards</b> - To recycle newspaper to create plantable greeting cards.	S3L2			
4. <b>Know &amp; Show Recycling Sombrero</b> - To make wearable works of art showing materials that can be recycled.	S3L2			
1. <b>Plant Pounding</b> - To transfer the likeness of plant parts to fabric.				
2. <b>Let's Dye It</b> - To color eggs or fabrics using dyes created from natural materials.				
3. <b>Nature Windows</b> - To create art using natural materials.				
4. <b>Garden Folk</b> - To build a scarecrow.				
5. <b>Nature Masks</b> - To create wearable art using natural materials.				
6. <b>Mother Nature's Children</b> - To create art using natural materials.				

<b>Insects and Disease</b>				
<b>Activity</b>	<b>3rd Grade Science</b>	<b>3rd Grade English LA</b>	<b>3rd Grade Math</b>	<b>3rd Grade Social Studies</b>
1. <b>Insect Predictions and Survey</b> - To predict insect characteristics and learn what all insects have in common.	S3CS4			
2. <b>Insect Symmetry</b> - To learn and understand the concept of symmetry.				
3. <b>The Great Cover-Up!</b> - To learn and understand the concept of camouflage.	S3L1			
4. <b>Designer Bugs</b> - To reinforce concepts learned about insects so far: their characteristics and the concepts of symmetry and camouflage: their characteristics and the concepts of symmetry and camouflage.				
5. <b>Insect Riddles</b> - To reinforce basic concepts learned about insects so far, and to experiment with creative writing concepts by creating riddles.		ELA3LSV1		

6. <b>Secret Smells Game</b> - To discover how insects communicate using pheromones.				
1. <b>All in the Family: Insect Flash Cards</b> - To learn that insects are organized in groups based on their characteristics. To learn the characteristics common to all insects and the characteristics specific to a few groups of insects, called orders.				
2. <b>Ordering Insects</b> - To learn to sort insects based on similarities and differences, and make a basic insect key.				
3. <b>Metamorphosis Bracelets and Belts</b> - To learn the stages of metamorphosis.				
4. <b>Morpho Puppets</b> - To learn the stages of complete metamorphosis, and teach them to a younger group.				
5. <b>JMG Web Activity: Journey North</b> - To gain familiarity with the Internet as a research tool.				
1. <b>Suck-A-Bug</b> - To make a simple aspirator and use it to collect and observe small insects.	S3CS3			
2. <b>It's a Small World</b> - To create Berlese (Burr-lay-z) funnel and use it to collect and observe insects living in the ground and soil.	S3CS3			
3. <b>Classroom Netting</b> - To make an insect net and use it to collect samples of insects by sweeping.	S3CS3			
4. <b>By Land or By Sea</b> - To compare and contrast the types of insects living in different habitats.	S3L1			
5. <b>Classroom Ant Lion Farm</b> - To make a living collection of one type of insect and observe it closely as it builds its home.	S3CS8			
1. <b>Chew on This!</b> - To learn the four types of insect mouthparts and how they are specialized.				
2. <b>Schoolyard Survey</b> - To survey the schoolyard for signs of insect damage and to determine the types of insects that caused the damage.				
3. <b>Pollinator Puppet Show</b> - To learn the basic process of insect pollination.				
4. <b>The Bartering System</b> - To learn how plants and insects trade services, and to become familiar with the concept of energy exchange.				
5. <b>The Lone Bee</b> - To learn about solitary bees and create a bee home for them.				
6. <b>Designer Plants and Insects</b> - To combine previously learned concepts in creating insects and plants that are designed to work together.				
1. <b>Garden Friends and Foes</b> - To learn the difference between beneficial and pest insects, and to learn a few examples of each type.				

2. <b>Don't Bug Me!</b> - To identify pest insects of various organisms, and to discover the interrelatedness of all living organisms.				
3. <b>Who Goes There?</b> - To learn the basics of Integrated Pest Management (IPM), and to create a classroom IPM charting system.				
5. <b>Critter Creations</b> - To learn the four types of beneficial insects and why they are considered beneficial.				
1. <b>Exploratory Fungi</b> - To observe the variety of fungal spores present in the air.				
2. <b>Yeast Bread</b> - To learn how one fungus - yeast - is used in cooking and what purpose it serves.				
3. <b>Lacy Leaves</b> - To observe organic matter (decaying leaves) being decomposed by fungi.				
4. <b>Likin' those Lichens</b> - To learn what a lichen is and what a mutually beneficial relationship is.				
5. <b>Prescription for Prevention</b> - To learn the components of the disease triangle and the concept of IPM.				
6. <b>There's a Fungus Among Us!</b> - To observe and identify fungi that act as pests in the garden.				

### Landscape Horticulture

Activity	3rd Grade Science	3rd Grade English LA	3rd Grade Math	3rd Grade Social Studies
1. <b>Rooms</b> - To understand that areas within a space serve a special purpose and to define those areas.				
2. <b>People and Places</b> - To understand that different people use yard space differently.				
3. <b>Money Trees</b> - To understand that trees help to save energy and money.	S3L2			
4. <b>Site Map</b> - To experience an initial step in the landscape design process.	S3CS4			
1. <b>Nature Wheels</b> - To build a color wheel from items found in nature and understand the relationship of one color to another.				
2. <b>Texture Collection</b> - To understand how the design element, "texture," is used to visually create interest in the landscape.				
3. <b>Same Sides</b> - To understand the element of design, "balance," using symmetrical and asymmetrical visuals.				
4. <b>Does it Fit?</b> - To demonstrate understanding of the				

design element, "proportion."				
1. <b>Tearing Trees</b> - Learning to identify trees based on their classification and shape.				
2. <b>How Tall is that Tree?</b> - To measure the height of a large tree.			M3M2	
3. <b>Learning Your ABP's</b> - To understand plant classifications.				
4. <b>Great Green Grass</b> - Selection of grasses should be based upon care and maintenance requirements.				
1. <b>Arbor Day</b> - Understanding that trees are an important natural resource and ways people celebrate their friend, the tree.	S3L2			
2. <b>Do it Right</b> - To demonstrate through creative dramatics the proper way to plant a tree.		ELA3LSV1		
3. <b>Seed, Sod, &amp; Plugs</b> - To become familiar with different methods used in establishing a lawn.				
1. <b>An Inch of Water</b> - Understanding lawnscape water use and water conservation and money saving through proper use of irrigation systems.	S3L2			
2. <b>Pruning Places</b> - To learn reasons why plants are pruned and proper pruning techniques.				
3. <b>More Mulch, More Moist</b> - To study the effects of mulch on conserving water.				
4. <b>Queen Bud</b> - To learn the difference between terminal buds and lateral buds and their effects on plants.				

<b>Fruit and Nuts</b>				
<b>Activity</b>	<b>3rd Grade Science</b>	<b>3rd Grade English LA</b>	<b>3rd Grade Math</b>	<b>3rd Grade Social Studies</b>
1. <b>Dr. Fruit</b> - To research origins and relevant information about fruit and nuts		ELA3W1j		
2. <b>Linnaeus' Name It</b> - To become aware of the dependence all people have on plants	S3CS7			
3. <b>Botanical Wood Prints</b> - To recreate a historical wood press				
4. <b>A Bushel and a Peck</b> - To gain understanding of non-traditional measurements				
5. <b>Fruit and Vegetable Lab</b> - To learn what a fruit is, and to explore the difference between technical definitions and social customs.				
1. <b>Snooty Fruit</b> - To identify various fruits and nuts using sense of smell				

2. <b>Apple-ing Appearance</b> - To create an instrument to evaluate apples on shape and color, and contrast results with evaluation based on taste	S3CS7			
3. <b>Taste Test</b> - To evaluate fruit based on color, texture, taste, and smell				
4. <b>JMG Jam</b> - To use measurements to create a fruit product				
5. <b>Johnny's Appleslop</b> - To gain understanding of the main parts of a plant and role each performs				
1. <b>A Fruit's Life Rhyme</b> - To gain understanding of the life cycle of plants		ELA3LSV1		
2. <b>Fruit Frenzy</b> - To become familiar with the way fruits and vegetables develop around seeds				
3. <b>The Zones</b> - To identify the appropriate plants for a particular temperature zone				
4. <b>Just Chill</b> - To simulate a winter environment to provide chilling requirement for an apple seed				
5. <b>Fruit Factory</b> - To use reference material to choose a fruit or nut tree to plant or transplant				

### Vegetables and Herbs

Activity	3rd Grade Science	3rd Grade English LA	3rd Grade Math	3rd Grade Social Studies
1. <b>Home Sweet Home</b> - To understand the criteria for selecting a good garden site and to select an appropriate garden site based on those criteria.				
2. <b>Make Your Pick</b> - To select appropriate crops for planting based on season.	S3CS8			
3. <b>Small and Large</b> - To gain an understanding of space considerations when planting seeds.				
4. <b>Rules are Rules</b> - To establish rules for the garden that make it a safer place to learn.				
5. <b>Schedule It</b> - To establish a schedule where all learners take part in maintaining the watering and weeding of the garden.				
6. <b>Some Like It Hot</b> - To distinguish between warm season and cool season crops.				
1. <b>Cylinder Gardening</b> - To successfully grow vegetables and herbs in containers.				
2. <b>Paper Towel Gardening</b> - To create seed mats and transplant templates which will aid in organizing and laying out the garden.				
3. <b>Tender Transplants</b> - To understand the benefits and practice techniques of transplanting.	S3CS5			



4. <b>Weed Mats</b> - To create a natural form of weed control.	S3CS6			
5. <b>Season Extenders</b> - To create an environment for plants.				
1. <b>Garden to the Table</b> - To determine harvest time of various garden vegetables.				
2. <b>Beauty Contest</b> - To rank vegetables based on appearance.				
3. <b>Seed Bank</b> - To collect seeds from various fruits and vegetables.				
1. <b>The Pyramid</b> - To use the Food Guide Pyramid to plan balanced meals.				
2. <b>Food Safety</b> - To understand and practice food safety rules.				
3. <b>Label Reader</b> - To learn the importance of eating breakfast and how to make healthy food choices by using information found on food labels.				
4. <b>Veggie Taste Test</b> - To evaluate vegetables based on color, texture, taste and smell.				
5. <b>Junk Food Blues</b> - To understand the value of healthful eating habits by learning a song		ELA3LSV1		
1. <b>Garden Veggie Casserole</b> - To create a casserole with vegetables from your garden.				
2. <b>Veggie Pizza</b> - To use the Food Guide Pyramid to plan balanced meals.				
3. <b>Party Confetti Salad</b> - To make a salad using vegetables				
4. <b>Cultural Cooking</b> - To plan, plant, and harvest a theme garden that will grow ingredients for a recipe from a different culture.				
5. <b>Garden Sponge</b> - To grow and harvest a crop of loofa sponges.				
1. <b>Touch and Smell</b> - To identify herbs based on the sense of touch and smell.	S3CS7			
2. <b>Herbal Vinegar</b> - To make and bottle herbal vinegar.				
3. <b>Herb Bath Salts</b> - To prepare herbal bath salts wraps.				
4. <b>Herb Sachets</b> - To create herb sachets from dried herbs.				

## Life Skills and Career Exploration

Activity	3rd Grade Science	3rd Grade English LA	3rd Grade Math	3rd Grade Social Studies
1. <i>Who are You?</i> - To understand the many roles we have in life and begin to understand that each member is a very unique and special person.				
2. <i>"What are you like?"</i> - To help members examine their feelings, self-concepts, and values as they make choices.				
3. <i>Know Your JMG Friends</i> - Youth will recognize positives in their fellow students.				
4. <i>Good JMG's Wanted Posters</i> - Confirm each student's uniqueness by having them take their own fingerprints.	S3CS8			
5. <i>How would you feel?</i> - To understand that how you treat other people is very important.				
6. <i>Feeling Bee</i> - Youth will recognize that others have some of the same feelings they do in certain situations.				
1. <i>Where's My Fruit?</i> - To demonstrate the importance of sharing with your friends.				
2. <i>Let's Build It</i> - To explain the importance of cooperation in a group situation.				
3. <i>JMG Cooperation Roster</i> - To explain the importance of cooperation in a group situation.				
4. <i>Musical Chairs with a Twist</i> - To explain the importance of cooperation and sharing in a group.				
5. <i>Over and Under</i> - To illustrate group cooperation in a competitive situation.				
6. <i>Cooperation Countdown</i> - To demonstrate the importance of cooperation in a group.				
1. <i>Garden Shed</i> - To develop listening/communication skills. Helps with memory tasks.	S3CS8			
2. <i>Who's Who on Our Team?</i> - To identify and practice different modes and methods of communication.	S3CS8			
3. <i>Can You Follow Me?</i> - To identify and practice different methods of communication.	S3CS8			
4. <i>Plant a Seed</i> - To demonstrate the importance of clear verbal communication.	S3CS8			
1. <i>Goal Search</i> - To teach members what a goal is.				
2. <i>Right on Target</i> - To demonstrate the skills needed for goal setting and construct personal goals.				
3. <i>The Class/Club Chronicle</i> - To write appropriate short-				

term personal goals.				
4. <b>Watch Me Grow</b> - To discuss the different types of goals: short-range and long-range.				
1. <b>Making a Machine</b> - To teach group cooperation and the importance of each member's role.				
2. <b>Create a Costume</b> - To stimulate creative thinking and to implement the group decision-making process.				
3. <b>Pass It On!</b> - To help group members get to know each other.		ELA3W1		
4. <b>Either/Or</b> - To explain the decision-making process.				
5. <b>Let's Make a Case Out of It</b> - To explain how the decision-making process works with a group decision				
6. <b>It's in the Bag</b> - To understand the importance of gathering information for decision-making and problem solving.				
1. <b>Shared Responsibility</b> - To identify responsibilities to a group and its members				
2. <b>Consequences</b> - To understand self-responsibility; identify actions and related consequences.				
3. <b>Touchdown</b> - To set responsibility goals to work toward. Practice setting goals.				
4. <b>Don't Stamp Me</b> - To learn that stereotypes influence how people act and respond to situations.				
1. <b>Careers and School</b> - To compare and contrast school and the world of work.	S3CS8			
2. <b>Career Teams</b> - To analyze various careers in terms of group or individual involvement.	S3CS8			
3. <b>When I Grow Up</b> - To become aware of the choices they will make when choosing a career.	S3CS8			
4. <b>Dream House</b> - To analyze personal decisions and demonstrate understanding of the purpose and nature of work. Identify the impact of various careers on their world.	S3CS8			
5. <b>All for One</b> - To identify careers that operate independently and those that operate as a team.	S3CS8			