

**WEST JEFFERSON HILLS SCHOOL DISTRICT
SCIENCE & TECHNOLOGY CURRICULUM**

GRADE 2

<p style="text-align: center;">PA Academic Standards Student must be able to do</p>	<p style="text-align: center;">Objective Content or process student will be able to know and do</p>	<p style="text-align: center;">Instructional Methods</p>	<p style="text-align: center;">Materials/ Resources Textbooks, trade books, workbooks, software, hardware, etc.</p>	<p style="text-align: center;">*Assessment Procedures *Additional adaptations, modifications, accommodations, and enrichment/acceleration will be provided per IEP</p>	<p style="text-align: center;">*Additional Learning Opportunities for students who do not meet basic standards *Additional adaptations, modifications, and accommodations will be provided per IEP</p>	<p style="text-align: center;">*Extended Learning Opportunities for students who can go beyond the basic standards. *Additional enrichment/acceleration will be provided per IEP</p>
<p>3.1 Science & Technology 3.1.4. Unifying Themes</p>						
<p>A. Know that natural and human-made objects are made up of parts. Identify and describe what parts make up a system.</p> <ul style="list-style-type: none"> •Identify system parts that are natural and human-made (e.g., ball point pen, simple electrical circuits, plant anatomy). •Describe the purpose of analyzing systems. •Know that technologies include physical technology systems (e.g., construction, manufacturing, transportation), informational systems and biochemical-related systems. 	<ul style="list-style-type: none"> •Students will know that natural objects and human made objects are made up of parts. •Students will use sand to make sculptures and clay to make beads, jewelry, and clay bricks. •Students will search for earth materials outside the classroom •Students will explore places where earth materials are found and ways that earth materials are used. •Students will observe and compare different grades of sand paper. 	<ul style="list-style-type: none"> •Brainstorming •Cooperative learning groups •Learning centers •Flexible grouping •Research projects •Mini projects •Direct instruction •Modeling •Guided practice •Independent practice •Newspaper •Graphic organizer •Dramatization •Journal/student notebooks •Outlining •Create KWL charts 	<ul style="list-style-type: none"> •Pebble, Sand, and silt module •Butterfly kits •Transparencies •Blackline masters •Posters •Study prints •Trade books •Teacher resource library •Video library •Websites •Library resources, print and electronic •Software •Simulations •Current events 	<ul style="list-style-type: none"> •Pre and post unit assessments •Record sheets •Drawings •Class discussions •Teacher observations •Student investigations •Science notebook •Test/Quizzes •Study guides •Projects •Journals •Presentations •Teacher made test •Graphic organizers •Outlines •Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> •Make earthworm habitat •Map stone soup •Write about magic pebbles •Make sandpaper prints •Make a rock pack •Start a rock collection •Trade books •Science learning centers •Set up a terrarium •Construct a caterpillar model •Dramatize by dance caterpillar moves •Use puppets to dramatize the life cycle of a painted lady •Field trip •Create games •Computer software •Real life application •Research projects •Guest speakers •Experiments •Peer teaching

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<p>B. Know models as useful simplifications of objects or processes.</p> <ul style="list-style-type: none"> • Identify different types of models. • Identify and apply models as tools for prediction and insight. • Apply appropriate simple modeling tools and techniques. • Identify theories that serve as models (e.g., molecules). 		<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>3.1 Science & Technology 3.1.4. Unifying Themes</p>						
<p>C. Illustrate patterns that regularly occur and reoccur n nature.</p> <ul style="list-style-type: none"> • Identify observable patterns (e.g., growth patterns in plants, crystal shapes in minerals, climate, structural patterns in bird feathers). • Use knowledge of natural patterns to predict next occurrences (e.g., seasons, leaf patterns, lunar phases). 	<ul style="list-style-type: none"> • Students will illustrate patterns that occur in nature. • Students will recognize the specific needs of the caterpillars. • Students will predict what changes may occur in caterpillars. • Students observe the J-shape that precedes the caterpillar’s transformation into a chrysalis. • Student will, if possible, witness the final molt that results in the Chrysalis. • Students will be assessed in learning caterpillar and butterfly anatomy. 	<ul style="list-style-type: none"> •Brainstorming •Cooperative learning groups •Learning centers •Flexible grouping •Research projects •Mini projects •Direct instruction •Modeling •Guided practice •Independent practice •Newspaper •Graphic organizer •Dramatization •Journal/student notebooks •Outlining •Create KWL charts 	<ul style="list-style-type: none"> •Pebble, Sand, and silt module •Butterfly kits •Transparencies •Blackline masters •Posters •Study prints •Trade books •Teacher resource library •Video library •Websites •Library resources, print and electronic •Software •Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> •Make earthworm habitat •Map stone soup •Write about magic pebbles •Make sandpaper prints •Make a rock pack •Start a rock collection •Trade books •Science learning centers •Set up a terrarium •Construct a caterpillar model •Dramatize by dance caterpillar moves •Use puppets to dramatize the life cycle of a painted lady •Field trip •Create games •Computer software •Real life application •Research projects •Guest speakers •Experiments •Peer teaching

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	<ul style="list-style-type: none"> • Students will work on their observational skills to realize that even at an inactive stage, important changes are taking place within the chrysalis. • Students will make predictions about what will emerge from the chrysalis. • Students will understand that butterflies have their place in the environment. • Students will expand their knowledge of the life cycles of other plants and animals. 					

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<p>3.1 Science & Technology 3.1.4. Unifying Themes</p>						
<p>D. Know that scale is an important attribute of natural and human made objects, events, and phenomena.</p> <ul style="list-style-type: none"> •Identify the use of scale as it relates to the measurement of distance, volume, and mass. •Describe scale as a ration (e.g., map scales). •Explain the importance of scale in producing models and apply it to a model. 		<ul style="list-style-type: none"> •Brainstorming •Cooperative learning groups •Learning centers •Flexible grouping •Research projects •Mini projects •Direct instruction •Modeling •Guided practice •Independent practice •Newspaper •Graphic organizer •Dramatization •Journal/student notebooks •Outlining •Create KWL charts 	<ul style="list-style-type: none"> •Pebble, Sand, and silt module •Butterfly kits •Transparencies •Blackline masters •Posters •Study prints •Trade books •Teacher resource library •Video library •Websites •Library resources, print and electronic •Software •Simulations 	<ul style="list-style-type: none"> •Pre and post unit assessments •Record sheets •Drawings •Class discussions •Teacher observations •Student investigations •Science notebook •Test/Quizzes •Study guides •Projects •Journals •Presentations •Teacher made test •Graphic organizers •Outlines •Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> •Make earthworm habitat •Map stone soup •Write about magic pebbles •Make sandpaper prints •Make a rock pack •Start a rock collection •Trade books •Science learning centers •Set up a terrarium •Construct a caterpillar model •Dramatize by dance caterpillar moves •Use puppets to dramatize the life cycle of a painted lady •Field trip •Create games •Computer software •Real life application •Research projects •Guest speakers •Experiments •Peer teaching

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<p>3.1 Science & Technology 3.1.4. Unifying Themes</p>						
<p>E. Recognize change in natural and physical systems.</p> <ul style="list-style-type: none"> • Recognize change as fundamental to science and technology concepts. • Examine and explain change by using time and measurement. • Describe relative motion. • Describe the change to objects caused by heat, cold, light, or chemicals. 	<ul style="list-style-type: none"> • Students will recognize change in natural and physical systems. • Students observe growth and change in the caterpillars and relate this to changes in their own bodies. • Students notice evidence of changes, in caterpillars such as shed skin, the shed head capsule, or increases in frass and decreases in food. • Students will explore a rive rock mixture containing earth material particles of various sizes. • Students will use screen to separate and group river rocks by particle size. 	<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>3.2 Science & Technology 3.2.4 Inquiry & Design</p>						
<p>A. Identify and use the nature of scientific and technological knowledge.</p> <ul style="list-style-type: none"> •Distinguish between a scientific fact and a belief. •Provide clear explanations that account for observations and results. •Relate how new information can change existing perceptions. 	<ul style="list-style-type: none"> •Students will provide clear explanations for observations. •Students will make and record their observations of the caterpillars. •Students will use their data about the caterpillars and butterflies to answer their questions. •Students will apply a concept they have learned in the butterfly unit to new situations. •Students will value scientific information that has been collected over time. •Students will develop a growing curiosity and interest in the physical world around them. 	<ul style="list-style-type: none"> •Brainstorming •Cooperative learning groups •Learning centers •Flexible grouping •Research projects •Mini projects •Direct instruction •Modeling •Guided practice •Independent practice •Newspaper •Graphic organizer •Dramatization •Journal/student notebooks •Outlining •Create KWL charts 	<ul style="list-style-type: none"> •Pebble, Sand, and silt module •Butterfly kits •Transparencies •Blackline masters •Posters •Study prints •Trade books •Teacher resource library •Video library •Websites •Library resources, print and electronic •Software •Simulations 	<ul style="list-style-type: none"> •Pre and post unit assessments •Record sheets •Drawings •Class discussions •Teacher observations •Student investigations •Science notebook •Test/Quizzes •Study guides •Projects •Journals •Presentations •Teacher made test •Graphic organizers •Outlines •Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> •Make earthworm habitat •Map stone soup •Write about magic pebbles •Make sandpaper prints •Make a rock pack •Start a rock collection •Trade books •Science learning centers •Set up a terrarium •Construct a caterpillar model •Dramatize by dance caterpillar moves •Use puppets to dramatize the life cycle of a painted lady •Field trip •Create games •Computer software •Real life application •Research projects •Guest speakers •Experiments •Peer teaching

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<p>3.2 Science & Technology 3.2.4 Inquiry & Design</p>						
	<ul style="list-style-type: none"> •Students will observe, describe, and sort earth materials based on properties. •Students will explore places where earth materials are found and ways that earth materials are used. •Students will gain early experiences that will contribute to their understanding of several persuasive themes that relate one scientific idea to another (i.e., structure, change, and interaction) 					

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<p>3.2 Science & Technology 3.2.4 Inquiry & Design</p>						
<p>B. Describe objects in the world using the five senses.</p> <ul style="list-style-type: none"> • Recognize observational descriptors from each of the five senses (e.g., see-blue, feel-rough). • Use observations to develop a descriptive vocabulary. 	<ul style="list-style-type: none"> • Students will describe objects using five senses. • Students will investigate properties of pebbles, gravel, sand, salt, and clay particles. • Students will use screens to separate and group river rocks by particle. • Students will explore the properties of dry, and wet clay particles. • Students will observe the similarities and differences in the materials in a river rock mixture, silt, sand, gravel, and small and large pebbles. 	<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>3.2 Science & Technology 3.2.4 Inquiry & Design</p>						
<p>C. Recognize and use the elements of scientific inquiry to solve problems.</p> <ul style="list-style-type: none"> •Generate questions about objects, organisms, an/or events that can be answered through scientific investigations. •Design an investigation. •Conduct an experiment. •State a conclusion that is consistent with the information. 	<ul style="list-style-type: none"> •Students will use elements of scientific inquiry. •Students will express in words and drawings what they already know about caterpillars and butterflies. •Students will use their data about the caterpillars and butterflies to answer their questions. •Students will observe, describe, and record growth and change in larva. •Students will communicate observations through drawings and writings. 	<ul style="list-style-type: none"> •Brainstorming •Cooperative learning groups •Learning centers •Flexible grouping •Research projects •Mini projects •Direct instruction •Modeling •Guided practice •Independent practice •Newspaper •Graphic organizer •Dramatization •Journal/student notebooks •Outlining •Create KWL charts 	<ul style="list-style-type: none"> •Pebble, Sand, and silt module •Butterfly kits •Transparencies •Blackline masters •Posters •Study prints •Trade books •Teacher resource library •Video library •Websites •Library resources, print and electronic •Software •Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> •Make earthworm habitat •Map stone soup •Write about magic pebbles •Make sandpaper prints •Make a rock pack •Start a rock collection •Trade books •Science learning centers •Set up a terrarium •Construct a caterpillar model •Dramatize by dance caterpillar moves •Use puppets to dramatize the life cycle of a painted lady •Field trip •Create games •Computer software •Real life application •Research projects •Guest speakers •Experiments •Peer teaching

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	<ul style="list-style-type: none"> •Students will identify the composition of soil, weathered rock, decomposed organic material, etc. •Students will compare and contrast the properties of different soil types (sand, clay, compost). •Students will compare soil samples from different locations. •Students will identify river rock mixture containing earth material particles of various sizes. •Students will separate sand and silt using water. •Students will investigate properties of pebbles, gravel, sand, silt, and clay particles. 					

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<p>3.2 Science & Technology 3.2.4 Inquiry & Design</p>						
	<ul style="list-style-type: none"> •Students will make a mixture of earth materials to create soil. •Students will use screens to separate the components in a soil mixture. •Students will observe and record the results of shaking soil and water in a vial. •Students will find and collect samples of soil outside the classroom. 					

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<p>3.2 Science & Technology 3.2.4 Inquiry & Design</p>						
<p>D. Recognize and use the technological design process to solve problems.</p> <ul style="list-style-type: none"> •Recognize and explain basic problems. •Identify possible solutions and their course of action. •Try a solution. •Describe the solution, identify its impacts, and modify if necessary. •Show the steps taken and the results. 		<ul style="list-style-type: none"> •Brainstorming •Cooperative learning groups •Learning centers •Flexible grouping •Research projects •Mini projects •Direct instruction •Modeling •Guided practice •Independent practice •Newspaper •Graphic organizer •Dramatization •Journal/student notebooks •Outlining •Create KWL charts 	<ul style="list-style-type: none"> •Pebble, Sand, and silt module •Butterfly kits •Transparencies •Blackline masters •Posters •Study prints •Trade books •Teacher resource library •Video library •Websites •Library resources, print and electronic •Software •Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> •Make earthworm habitat •Map stone soup •Write about magic pebbles •Make sandpaper prints •Make a rock pack •Start a rock collection •Trade books •Science learning centers •Set up a terrarium •Construct a caterpillar model •Dramatize by dance caterpillar moves •Use puppets to dramatize the life cycle of a painted lady •Field trip •Create games •Computer software •Real life application •Research projects •Guest speakers •Experiments •Peer teaching

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<p>3.3 Science & Technology 3.3.4 Biological Sciences</p>						
<p>A. Know the similarities and differences of living things.</p> <ul style="list-style-type: none"> • Identify life processes of living things (e.g., growth, digestion, react to environment). • Know that some organisms have similar external characteristics (e.g., anatomical characteristics; appendages, type of covering, body segments) and that similarities and differences are related to environmental habitat. • Describe basic needs of plants and animals. 	<ul style="list-style-type: none"> • Students will know similarities and differences of living things. • Students will understand life cycles of organisms. • Students will illustrate life cycles of various animals (e.g., insect, butterflies, mammals, amphibians). • Students will prepare the food cups and learn how to care for the caterpillars. • Students will learn about the characteristics that living things share. • Students will become aware of what living things need to survive. 	<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>3.3 Science & Technology 3.3.4 Biological Sciences</p>						
	<ul style="list-style-type: none"> •Students will observe and draw the silk threads spun by a caterpillar. •Students will understand how a caterpillar uses silk. •Students will compare the way a butterfly eats with the way a caterpillar eats. •Students will observe how the butterfly uses the proboscis to eat. •Students will observe the physical characteristics and the behavior of their butterfly. •Students will understand how butterflies are equipped to survive in the natural world. 					

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<p>3.3 Science & Technology 3.3.4 Biological Sciences</p>						
	<ul style="list-style-type: none"> •Students will discover the characteristics that all insects share. •Students will appreciate the needs of living things. •Students will understand that caterpillars need food, air, and space to live and grow. •Students will understand the properties of soil and its importance for plants. •Students will understand how plant growth is related to soil properties. <ul style="list-style-type: none"> -compare plant growth in different soil. -compare root growth in different soil. 					

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<p>3.3 Science & Technology 3.3.4 Biological Sciences</p>						
<p>B. Know that living things are made up of parts that have specific functions.</p> <ul style="list-style-type: none"> • Identify examples of unicellular and multi-cellular organisms. • Determine how different parts of a living thing work together to make the organism function. 	<ul style="list-style-type: none"> • Students will know living things are made up of parts. • Students will observe the structures and activities of caterpillars. • Students will observe the butterflies emerging from the chrysalis (or discover the butterfly and empty chrysalis case). • Students will observe some distinct butterfly body parts. • Students will compare the butterflies to themselves. • Students will learn that the butterfly is an animal called an insect. 	<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>3.3 Science & Technology 3.3.4 Biological Sciences</p>						
	<ul style="list-style-type: none"> •Students will realize that cycles are regenerative; Life begets life. •Students will develop an interest in studying insects. •Students will understand the different stages of a butterfly life cycle (egg, larva, caterpillar, chrysalis, and adult). •Students will understand that butterflies need food to live, but it does not grow after emerging from the chrysalis. 					

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<p>3.3 Science & Technology 3.3.4 Biological Sciences</p>						
<p>C. Know that characteristics are inherited and, thus, offspring closely resemble their parents.</p> <ul style="list-style-type: none"> •Identify characteristics for animal and plan survival in different climates. •Identify physical characteristics that appear in both parents and offspring and differ between families, strains, or species. 	<ul style="list-style-type: none"> •Students will learn about the human lifecycle and lifecycles of other mammals. 	<ul style="list-style-type: none"> •Brainstorming •Cooperative learning groups •Learning centers •Flexible grouping •Research projects •Mini projects •Direct instruction •Modeling •Guided practice •Independent practice •Newspaper •Graphic organizer •Dramatization •Journal/student notebooks •Outlining •Create KWL charts 	<ul style="list-style-type: none"> •Pebble, Sand, and silt module •Butterfly kits •Transparencies •Blackline masters •Posters •Study prints •Trade books •Teacher resource library •Video library •Websites •Library resources, print and electronic •Software •Simulations 	<ul style="list-style-type: none"> •Pre and post unit assessments •Record sheets •Drawings •Class discussions •Teacher observations •Student investigations •Science notebook •Test/Quizzes •Study guides •Projects •Journals •Presentations •Teacher made test •Graphic organizers •Outlines •Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> •Make earthworm habitat •Map stone soup •Write about magic pebbles •Make sandpaper prints •Make a rock pack •Start a rock collection •Trade books •Science learning centers •Set up a terrarium •Construct a caterpillar model •Dramatize by dance caterpillar moves •Use puppets to dramatize the life cycle of a painted lady •Field trip •Create games •Computer software •Real life application •Research projects •Guest speakers •Experiments •Peer teaching

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<p>3.3 Science & Technology 3.3.4 Biological Sciences</p>						
<p>D. Identify changes in living things over time. •Compare extinct life forms with living organisms.</p>	<ul style="list-style-type: none"> •Students will identify changes in living things over time. •Students will observe how caterpillars grow and change. •Students will notice evidence of changes, such as shed skin, the shed head capsule, or increases in frass and decreases in food. •Students will observe, describe, and record growth and change in the larva. 	<ul style="list-style-type: none"> •Brainstorming •Cooperative learning groups •Learning centers •Flexible grouping •Research projects •Mini projects •Direct instruction •Modeling •Guided practice •Independent practice •Newspaper •Graphic organizer •Dramatization •Journal/student notebooks •Outlining •Create KWL charts 	<ul style="list-style-type: none"> •Pebble, Sand, and silt module •Butterfly kits •Transparencies •Blackline masters •Posters •Study prints •Trade books •Teacher resource library •Video library •Websites •Library resources, print and electronic •Software •Simulations 	<ul style="list-style-type: none"> •Pre and post unit assessments •Record sheets •Drawings •Class discussions •Teacher observations •Student investigations •Science notebook •Test/Quizzes •Study guides •Projects •Journals •Presentations •Teacher made test •Graphic organizers •Outlines •Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> •Make earthworm habitat •Map stone soup •Write about magic pebbles •Make sandpaper prints •Make a rock pack •Start a rock collection •Trade books •Science learning centers •Set up a terrarium •Construct a caterpillar model •Dramatize by dance caterpillar moves •Use puppets to dramatize the life cycle of a painted lady •Field trip •Create games •Computer software •Real life application •Research projects •Guest speakers •Experiments •Peer teaching

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<p>3.4 Science & Technology 3.4.4 Physical Science, Chemistry and Physics</p>						
<p>A. Recognize basic concepts about the structure and properties of matter.</p> <ul style="list-style-type: none"> • Describe properties of matter (e.g., hardness, reactions to simple chemical tests). • Know that combining two or more substances can make new materials with different properties. • Know different material characteristics (e.g., texture, state of matter, solubility). 	<ul style="list-style-type: none"> • Students will do sandpaper rubbings to observe the different textures. 	<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>3.4 Science & Technology 3.4.4 Physical Science, Chemistry and Physics</p>						
<p>B. Know basic energy types, sources, and conversions.</p> <ul style="list-style-type: none"> • Identify energy forms and examples (e.g., sunlight, heat, stored, motion). • Know the concept of the flow of energy by measuring flow through an object or system. • Describe static electricity in terms of attraction, repulsion, and sparks. • Apply knowledge of the basic electrical circuits to design and construct simple direct current circuits. 		<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>3.4 Science & Technology 3.4.4 Physical Science, Chemistry and Physics</p>						
<ul style="list-style-type: none"> • Classify materials as conductors and nonconductors. • Know and demonstrate the basic properties of heat by producing it in a variety of ways. • Know the characteristics of light (e.g., reflection, refraction, absorption) and use them to produce heat, color, or a virtual image. 		<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>3.4 Science & Technology 3.4.4 Physical Science, Chemistry and Physics</p>						
<p>C. Observe and describe different types of force and motion.</p> <ul style="list-style-type: none"> • Identify characteristics of sound (pitch, loudness, and echoes). • Recognize forces that attract or repel other objects and demonstrate them. • Describe various types of motions. • Compare the relative movement of objects and describe types of motion that are evident. • Describe the position of an object by locating it relative to another object or the background (e.g., geographic direction, left, up). 		<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>3.4 Science & Technology 3.4.4 Physical Science, Chemistry and Physics</p>						
<p>D. Describe the composition and structure of the universe and the earth's place in it.</p> <ul style="list-style-type: none"> •Recognize earth's place in the solar system. •Explain and illustrate the causes of seasonal changes. •Identify planets in our solar system and their general characteristics. <p>Describe the solar system motions and use them to explain time (e.g., days, seasons), major lunar phases, and eclipses.</p>		<ul style="list-style-type: none"> •Brainstorming •Cooperative learning groups •Learning centers •Flexible grouping •Research projects •Mini projects •Direct instruction •Modeling •Guided practice •Independent practice •Newspaper •Graphic organizer •Dramatization •Journal/student notebooks •Outlining •Create KWL charts 	<ul style="list-style-type: none"> •Pebble, Sand, and silt module •Butterfly kits •Transparencies •Blackline masters •Posters •Study prints •Trade books •Teacher resource library •Video library •Websites •Library resources, print and electronic •Software •Simulations 	<ul style="list-style-type: none"> •Pre and post unit assessments •Record sheets •Drawings •Class discussions •Teacher observations •Student investigations •Science notebook •Test/Quizzes •Study guides •Projects •Journals •Presentations •Teacher made test •Graphic organizers •Outlines •Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> •Make earthworm habitat •Map stone soup •Write about magic pebbles •Make sandpaper prints •Make a rock pack •Start a rock collection •Trade books •Science learning centers •Set up a terrarium •Construct a caterpillar model •Dramatize by dance caterpillar moves •Use puppets to dramatize the life cycle of a painted lady •Field trip •Create games •Computer software •Real life application •Research projects •Guest speakers •Experiments •Peer teaching

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<p>3.5 Science & Technology 3.5.4 Earth Sciences</p>						
<p>A. Know basic land-forms and earth history.</p> <ul style="list-style-type: none"> • Describe earth processes (e.g., rusting, weathering, erosion) that have affected selected physical features in students' neighborhoods. • Identify various earth structures (e.g., mountains, faults, drainage basins) through the use of models (integrated with social studies). • Identify the composition of soil as weathered rock and decomposed organic remains. • Describe fossils and the type of environment they lived in (e.g., tropical, aquatic, desert). 		<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>3.4 Science & Technology 3.4.4 Physical Science, Chemistry and Physics</p>						
<p>B. Know types and uses of earth materials. •Identify uses of various earth materials (e.g., buildings, highways, fuels, growing plants). •Identify and sort earth materials according to a classification key (e.g., soil/rock type).</p>	<p>•Students will identify and sort volcanic and river rock (sedimentary).</p>	<ul style="list-style-type: none"> •Brainstorming •Cooperative learning groups •Learning centers •Flexible grouping •Research projects •Mini projects •Direct instruction •Modeling •Guided practice •Independent practice •Newspaper •Graphic organizer •Dramatization •Journal/student notebooks •Outlining •Create KWL charts 	<ul style="list-style-type: none"> •Pebble, Sand, and silt module •Butterfly kits •Transparencies •Blackline masters •Posters •Study prints •Trade books •Teacher resource library •Video library •Websites •Library resources, print and electronic •Software •Simulations 	<ul style="list-style-type: none"> •Pre and post unit assessments •Record sheets •Drawings •Class discussions •Teacher observations •Student investigations •Science notebook •Test/Quizzes •Study guides •Projects •Journals •Presentations •Teacher made test •Graphic organizers •Outlines •Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> •Make earthworm habitat •Map stone soup •Write about magic pebbles •Make sandpaper prints •Make a rock pack •Start a rock collection •Trade books •Science learning centers •Set up a terrarium •Construct a caterpillar model •Dramatize by dance caterpillar moves •Use puppets to dramatize the life cycle of a painted lady •Field trip •Create games •Computer software •Real life application •Research projects •Guest speakers •Experiments •Peer teaching

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<p>3.4 Science & Technology 3.4.4 Physical Science, Chemistry and Physics</p>						
<p>C. Know basic weather elements. •Identify cloud types. •Identify weather patterns from data charts (including temperature, wind direction, and speed, precipitation) and graphs of the data. •Explain how the different seasons affect plants, animals, food availability, and daily human life.</p>		<ul style="list-style-type: none"> •Brainstorming •Cooperative learning groups •Learning centers •Flexible grouping •Research projects •Mini projects •Direct instruction •Modeling •Guided practice •Independent practice •Newspaper •Graphic organizer •Dramatization •Journal/student notebooks •Outlining •Create KWL charts 	<ul style="list-style-type: none"> •Pebble, Sand, and silt module •Butterfly kits •Transparencies •Blackline masters •Posters •Study prints •Trade books •Teacher resource library •Video library •Websites •Library resources, print and electronic •Software •Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> •Make earthworm habitat •Map stone soup •Write about magic pebbles •Make sandpaper prints •Make a rock pack •Start a rock collection •Trade books •Science learning centers •Set up a terrarium •Construct a caterpillar model •Dramatize by dance caterpillar moves •Use puppets to dramatize the life cycle of a painted lady •Field trip •Create games •Computer software •Real life application •Research projects •Guest speakers •Experiments •Peer teaching

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<p>3.4 Science & Technology 3.4.4 Physical Science, Chemistry and Physics</p>						
<p>D. Recognize the earth's different water resources.</p> <ul style="list-style-type: none"> • Know that approximately three-fourths of the earth is covered by water. • Identify and describe types of fresh and salt-water bodies (integrated with social studies). • Identify examples of water In the form of solid, liquid, and gas on or near the surface of the earth. • Explain and illustrate evaporation and condensation. • Recognize other resources available form water (e.g., energy, transportation, minerals, food). 		<ul style="list-style-type: none"> •Brainstorming •Cooperative learning groups •Learning centers •Flexible grouping •Research projects •Mini projects •Direct instruction •Modeling •Guided practice •Independent practice •Newspaper •Graphic organizer •Dramatization •Journal/student notebooks •Outlining •Create KWL charts 	<ul style="list-style-type: none"> •Pebble, Sand, and silt module •Butterfly kits •Transparencies •Blackline masters •Posters •Study prints •Trade books •Teacher resource library •Video library •Websites •Library resources, print and electronic •Software •Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> •Make earthworm habitat •Map stone soup •Write about magic pebbles •Make sandpaper prints •Make a rock pack •Start a rock collection •Trade books •Science learning centers •Set up a terrarium •Construct a caterpillar model •Dramatize by dance caterpillar moves •Use puppets to dramatize the life cycle of a painted lady •Field trip •Create games •Computer software •Real life application •Research projects •Guest speakers •Experiments •Peer teaching

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<p>3.6 Science & Technology 3.6.4 Technology Education</p>						
<p>A. Know that biotechnologies relate to propagating, growing, maintaining, adapting, treating, and converting.</p> <ul style="list-style-type: none"> • Identify agricultural and industrial production processes that involve plants and animals. • Identify waste management treatment processes. • Describe how knowledge of the human body influences or impacts ergonomic design. • Describe how biotechnology has impacted various aspects of daily life (e.g., health care, agriculture, waste treatment). 		<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>3.6 Science & Technology 3.6.4 Technology Education</p>						
<p>B. Know that information technologies involve encoding, transmitting, receiving, storing, retrieving, and decoding.</p> <ul style="list-style-type: none"> •Identify electronic communication methods that exist in the community (e.g., digital cameras, telephone, internet, television, fiber optics). •Identify graphic reproduction methods. •Describe appropriate image generating techniques (e.g., photography, video). •Demonstrate the ability to communicate an idea by applying basic sketching and drawing techniques. 		<ul style="list-style-type: none"> •Brainstorming •Cooperative learning groups •Learning centers •Flexible grouping •Research projects •Mini projects •Direct instruction •Modeling •Guided practice •Independent practice •Newspaper •Graphic organizer •Dramatization •Journal/student notebooks •Outlining •Create KWL charts 	<ul style="list-style-type: none"> •Pebble, Sand, and silt module •Butterfly kits •Transparencies •Blackline masters •Posters •Study prints •Trade books •Teacher resource library •Video library •Websites •Library resources, print and electronic •Software •Simulations 	<ul style="list-style-type: none"> •Pre and post unit assessments •Record sheets •Drawings •Class discussions •Teacher observations •Student investigations •Science notebook •Test/Quizzes •Study guides •Projects •Journals •Presentations •Teacher made test •Graphic organizers •Outlines •Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> •Make earthworm habitat •Map stone soup •Write about magic pebbles •Make sandpaper prints •Make a rock pack •Start a rock collection •Trade books •Science learning centers •Set up a terrarium •Construct a caterpillar model •Dramatize by dance caterpillar moves •Use puppets to dramatize the life cycle of a painted lady •Field trip •Create games •Computer software •Real life application •Research projects •Guest speakers •Experiments •Peer teaching

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<p>3.6 Science & Technology 3.6.4 Technology Education</p>						
<p>C. Know physical technologies of structural design, analysis, and engineering, finance, production, marketing, research, and design.</p> <ul style="list-style-type: none"> • Identify and group a variety of construction tasks. • Identify the major construction systems present in a specific local building. • Identify specific construction systems that depend on a each other in order to complete a project. • Know skills used in construction. • Identify examples of manufactured goods present in the home and school. 		<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>3.6 Science & Technology 3.6.4 Technology Education</p>						
<ul style="list-style-type: none"> •Identify basic resources needed to produce a manufactured item. •Identify basic component operations in a specific manufacturing enterprise (e.g., cutting, shaping, attaching). •Identify waste and pollution resulting from a manufacturing enterprise. 		<ul style="list-style-type: none"> •Brainstorming •Cooperative learning groups •Learning centers •Flexible grouping •Research projects •Mini projects •Direct instruction •Modeling •Guided practice •Independent practice •Newspaper •Graphic organizer •Dramatization •Journal/student notebooks •Outlining •Create KWL charts 	<ul style="list-style-type: none"> •Pebble, Sand, and silt module •Butterfly kits •Transparencies •Blackline masters •Posters •Study prints •Trade books •Teacher resource library •Video library •Websites •Library resources, print and electronic •Software •Simulations 	<ul style="list-style-type: none"> •Pre and post unit assessments •Record sheets •Drawings •Class discussions •Teacher observations •Student investigations •Science notebook •Test/Quizzes •Study guides •Projects •Journals •Presentations •Teacher made test •Graphic organizers •Outlines •Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> •Make earthworm habitat •Map stone soup •Write about magic pebbles •Make sandpaper prints •Make a rock pack •Start a rock collection •Trade books •Science learning centers •Set up a terrarium •Construct a caterpillar model •Dramatize by dance caterpillar moves •Use puppets to dramatize the life cycle of a painted lady •Field trip •Create games •Computer software •Real life application •Research projects •Guest speakers •Experiments •Peer teaching

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<p>3.6 Science & Technology 3.6.4 Technology Education</p>						
<ul style="list-style-type: none"> • Explain and demonstrate the concept of manufacturing (e.g. assemble a set of papers or ball point pens sequentially, mass produce an object). • Identify transportation technologies of propelling, structuring, suspending, guiding, controlling, and supporting. • Identify and experiment with simple machines used in transportation systems. • Explain how improved transportation systems have changed society. 		<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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SCIENCE & TECHNOLOGY CURRICULUM**

GRADE 2

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<p>3.7 Science & Technology 3.7.4 Technology Devices</p>						
<p>A. Explore the use of basic tools, simple materials, and techniques to safely solve problems.</p> <ul style="list-style-type: none"> •Describe the scientific principles on which various tools are based. •Group tools and machines by their function. •Select and safely apply appropriate tools and materials to solve simple problems. 	<ul style="list-style-type: none"> •Students will explore the use of basic tools, simple materials, and techniques to safely solve problems. •Students will learn how to use a magnifier. 	<ul style="list-style-type: none"> •Brainstorming •Cooperative learning groups •Learning centers •Flexible grouping •Research projects •Mini projects •Direct instruction •Modeling •Guided practice •Independent practice •Newspaper •Graphic organizer •Dramatization •Journal/student notebooks •Outlining •Create KWL charts 	<ul style="list-style-type: none"> •Pebble, Sand, and silt module •Butterfly kits •Transparencies •Blackline masters •Posters •Study prints •Trade books •Teacher resource library •Video library •Websites •Library resources, print and electronic •Software •Simulations 	<ul style="list-style-type: none"> •Pre and post unit assessments •Record sheets •Drawings •Class discussions •Teacher observations •Student investigations •Science notebook •Test/Quizzes •Study guides •Projects •Journals •Presentations •Teacher made test •Graphic organizers •Outlines •Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> •Make earthworm habitat •Map stone soup •Write about magic pebbles •Make sandpaper prints •Make a rock pack •Start a rock collection •Trade books •Science learning centers •Set up a terrarium •Construct a caterpillar model •Dramatize by dance caterpillar moves •Use puppets to dramatize the life cycle of a painted lady •Field trip •Create games •Computer software •Real life application •Research projects •Guest speakers •Experiments •Peer teaching

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<p>3.7 Science & Technology 3.7.4 Technology Devices</p>						
<p>B. Select appropriate instruments to study materials.</p> <ul style="list-style-type: none"> • Develop simple skills to measure, record, cut, and fasten. • Explain appropriate instrument selection for specific tasks. 	<ul style="list-style-type: none"> • Students will select appropriate instruments to study materials. 	<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>3.7 Science & Technology 3.7.4 Technology Devices</p>						
<p>C. Identify basic computer operations and concepts.</p> <ul style="list-style-type: none"> • Identify the major parts necessary for a computer to input and output data. • Explain and demonstrate the basic use of input and output devices (e.g., keyboard, monitor, printer, mouse). • Explain and demonstrate the use of external and internal storage devices (e.g., disk drive, CD drive). 		<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>3.7 Science & Technology 3.7.4 Technology Devices</p>						
<p>D. Use basic computer software.</p> <ul style="list-style-type: none"> • Apply operating system skills to perform basic computer tasks. • Apply basic word processing skills. • Identify and use simple graphic and presentation graphic materials generated by the computer. • Apply specific instructional software. 		<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>3.7 Science & Technology 3.7.4 Technology Devices</p>						
<p>E. Identify basic computer communications systems.</p> <ul style="list-style-type: none"> •Apply a web browser. •Apply basic electronic mail functions. •Use on-line searches to answer age appropriate questions. 		<ul style="list-style-type: none"> •Brainstorming •Cooperative learning groups •Learning centers •Flexible grouping •Research projects •Mini projects •Direct instruction •Modeling •Guided practice •Independent practice •Newspaper •Graphic organizer •Dramatization •Journal/student notebooks •Outlining •Create KWL charts 	<ul style="list-style-type: none"> •Pebble, Sand, and silt module •Butterfly kits •Transparencies •Blackline masters •Posters •Study prints •Trade books •Teacher resource library •Video library •Websites •Library resources, print and electronic •Software •Simulations 	<ul style="list-style-type: none"> •Pre and post unit assessments •Record sheets •Drawings •Class discussions •Teacher observations •Student investigations •Science notebook •Test/Quizzes •Study guides •Projects •Journals •Presentations •Teacher made test •Graphic organizers •Outlines •Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> •Make earthworm habitat •Map stone soup •Write about magic pebbles •Make sandpaper prints •Make a rock pack •Start a rock collection •Trade books •Science learning centers •Set up a terrarium •Construct a caterpillar model •Dramatize by dance caterpillar moves •Use puppets to dramatize the life cycle of a painted lady •Field trip •Create games •Computer software •Real life application •Research projects •Guest speakers •Experiments •Peer teaching

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<p>3.8 Science & Technology 3.8.4. Science, Technology, and Human Endeavors</p>						
<p>A. Know that people select, create, and use science and technology and that they are limited by social and physical restraints.</p> <ul style="list-style-type: none"> •Identify and describe positive and negative impacts that influence or result from new tools and techniques. •Identify how physical technology (e.g., construction, manufacturing, transportation), informational technology and biotechnology are used to meet human needs. 		<ul style="list-style-type: none"> •Brainstorming •Cooperative learning groups •Learning centers •Flexible grouping •Research projects •Mini projects •Direct instruction •Modeling •Guided practice •Independent practice •Newspaper •Graphic organizer •Dramatization •Journal/student notebooks •Outlining •Create KWL charts 	<ul style="list-style-type: none"> •Pebble, Sand, and silt module •Butterfly kits •Transparencies •Blackline masters •Posters •Study prints •Trade books •Teacher resource library •Video library •Websites •Library resources, print and electronic •Software •Simulations 	<ul style="list-style-type: none"> •Pre and post unit assessments •Record sheets •Drawings •Class discussions •Teacher observations •Student investigations •Science notebook •Test/Quizzes •Study guides •Projects •Journals •Presentations •Teacher made test •Graphic organizers •Outlines •Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> •Make earthworm habitat •Map stone soup •Write about magic pebbles •Make sandpaper prints •Make a rock pack •Start a rock collection •Trade books •Science learning centers •Set up a terrarium •Construct a caterpillar model •Dramatize by dance caterpillar moves •Use puppets to dramatize the life cycle of a painted lady •Field trip •Create games •Computer software •Real life application •Research projects •Guest speakers •Experiments •Peer teaching

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<p>3.8 Science & Technology 3.8.4. Science, Technology, and Human Endeavors</p>						
<ul style="list-style-type: none"> • Describe how scientific discoveries and technological advancements are related. • Identify interrelationships among technology, people, and their world. • Apply the technological design process to solve a simple problem. 		<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>3.8 Science & Technology 3.8.4. Science, Technology, and Human Endeavors</p>						
<p>B. Know how human ingenuity and technological resources satisfy specific human needs and improve the quality of life.</p> <ul style="list-style-type: none"> • Identify and distinguish between human needs and improving the quality of life. • Identify and distinguish between natural and human-made resources. • Describe a technological invention and the resources that were used to develop it. 		<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>3.8 Science & Technology 3.8.4. Science, Technology, and Human Endeavors</p>						
<p>C. Know the pros and cons of possible solutions to scientific and technological problems in society.</p> <ul style="list-style-type: none"> • Compare the positive and negative expected and unexpected impacts of technological change. • Identify and discuss examples of technological change in the community that have both positive and negative impacts. 		<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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ENVIRONMENT AND ECOLOGY CURRICULUM**

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<p>4.1 Watersheds and Wetlands 4.1.4 Environment & Ecology Grade 2</p>						
<p>A. Identify various types of water environments. •Identify the lotic system (e.g., creeks, rivers, streams). •Identify the lentic system (e.g., ponds, lakes, swamps).</p>		<ul style="list-style-type: none"> •Brainstorming •Cooperative learning groups •Learning centers •Flexible grouping •Research projects •Mini projects •Direct instruction •Modeling •Guided practice •Independent practice •Newspaper •Graphic organizer •Dramatization •Journal/student notebooks •Outlining •Create KWL charts 	<ul style="list-style-type: none"> •Pebble, Sand, and silt module •Butterfly kits •Transparencies •Blackline masters •Posters •Study prints •Trade books •Teacher resource library •Video library •Websites •Library resources, print and electronic •Software •Simulations 	<ul style="list-style-type: none"> •Pre and post unit assessments •Record sheets •Drawings •Class discussions •Teacher observations •Student investigations •Science notebook •Test/Quizzes •Study guides •Projects •Journals •Presentations •Teacher made test •Graphic organizers •Outlines •Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> •Make earthworm habitat •Map stone soup •Write about magic pebbles •Make sandpaper prints •Make a rock pack •Start a rock collection •Trade books •Science learning centers •Set up a terrarium •Construct a caterpillar model •Dramatize by dance caterpillar moves •Use puppets to dramatize the life cycle of a painted lady •Field trip •Create games •Computer software •Real life application •Research projects •Guest speakers •Experiments •Peer teaching

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ENVIRONMENT AND ECOLOGY CURRICULUM**

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<p>4.1 Watersheds and Wetlands 4.1.4 Environment & Ecology Grade 2</p>						
<p>B. Explain the differences between moving and still water. • Explain why water moves or does not move. • Identify types of precipitation.</p>		<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>4.1 Watersheds and Wetlands 4.1.4 Environment & Ecology Grade 2</p>						
<p>C. Identify living things found in water environments (Integrated in reading series). <ul style="list-style-type: none"> • Identify fish, insects, and amphibians that are found in fresh water. • Identify plants found in fresh water. </p>		<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>4.1 Watersheds and Wetlands 4.1.4 Environment & Ecology Grade 2</p>						
<p>D. Identify a wetland and the plants and animals found there.</p> <ul style="list-style-type: none"> • Identify different kinds of wetlands. • Identify plants and animals found in wetlands. • Explain wetlands as habitats for plants and animals. 		<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>4.1 Watersheds and Wetlands 4.1.4 Environment & Ecology Grade 2</p>						
<p>E. Recognize the impact of watersheds and wetlands on animals and plants. • Explain the role of watersheds in everyday life. • Identify the role of watersheds and wetlands for plants and animals.</p>		<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>4.2 Renewable and Nonrenewable Resources 4.2.4. Environment & Ecology Grade 2</p>						
<p>A. Identify needs of people. <ul style="list-style-type: none"> •Identify plants, animals, water, air, minerals, and fossil fuels as natural resources. •Explain air, water, and nutrient cycles. •Identify how the environment provides for the needs of people. </p>	<ul style="list-style-type: none"> •Students will identify the needs of people (butterfly module) •Students will understand and illustrate the life cycles of various animals (e.g., insects, amphibians, mammals). 	<ul style="list-style-type: none"> •Brainstorming •Cooperative learning groups •Learning centers •Flexible grouping •Research projects •Mini projects •Direct instruction •Modeling •Guided practice •Independent practice •Newspaper •Graphic organizer •Dramatization •Journal/student notebooks •Outlining •Create KWL charts 	<ul style="list-style-type: none"> •Pebble, Sand, and silt module •Butterfly kits •Transparencies •Blackline masters •Posters •Study prints •Trade books •Teacher resource library •Video library •Websites •Library resources, print and electronic •Software •Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> •Make earthworm habitat •Map stone soup •Write about magic pebbles •Make sandpaper prints •Make a rock pack •Start a rock collection •Trade books •Science learning centers •Set up a terrarium •Construct a caterpillar model •Dramatize by dance caterpillar moves •Use puppets to dramatize the life cycle of a painted lady •Field trip •Create games •Computer software •Real life application •Research projects •Guest speakers •Experiments •Peer teaching

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<p>4.2 Renewable and Nonrenewable Resources 4.2.4 Environment & Ecology Grade 2</p>						
<p>B. Identify products derived from natural resources.</p> <ul style="list-style-type: none"> •Identify products made from trees. •Identify by-products of plants and animals. •Identify the sources of manmade products (e.g., plastics, metal, aluminum, fabrics, paper, cardboard). 	<ul style="list-style-type: none"> •Students will identify products derived from natural resources (butterfly module). 	<ul style="list-style-type: none"> •Brainstorming •Cooperative learning groups •Learning centers •Flexible grouping •Research projects •Mini projects •Direct instruction •Modeling •Guided practice •Independent practice •Newspaper •Graphic organizer •Dramatization •Journal/student notebooks •Outlining •Create KWL charts 	<ul style="list-style-type: none"> •Pebble, Sand, and silt module •Butterfly kits •Transparencies •Blackline masters •Posters •Study prints •Trade books •Teacher resource library •Video library •Websites •Library resources, print and electronic •Software •Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> •Make earthworm habitat •Map stone soup •Write about magic pebbles •Make sandpaper prints •Make a rock pack •Start a rock collection •Trade books •Science learning centers •Set up a terrarium •Construct a caterpillar model •Dramatize by dance caterpillar moves •Use puppets to dramatize the life cycle of a painted lady •Field trip •Create games •Computer software •Real life application •Research projects •Guest speakers •Experiments •Peer teaching

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<p>4.2 Renewable and Nonrenewable Resources 4.2.4. Environment & Ecology Grade 2</p>						
<p>C. Know that some natural resources have limited life spans.</p> <ul style="list-style-type: none"> • Identify renewable and nonrenewable resources used in the local community. • Identify various means of conserving natural resources. • Know that natural resources have varying life spans. 		<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>4.2 Renewable and Nonrenewable Resources 4.2.4. Environment & Ecology Grade 2</p>						
<p>D. Identify by-products and their use of natural resources.</p> <ul style="list-style-type: none"> • Understand the waste stream. • Identify those items that can be recycled and those that cannot. • Identify use of reusable products. • Identify the use of compost, landfills, and incinerators. 		<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>4.3 Environmental Health 4.3.4. Environment & Ecology Grade 2</p>						
<p>A. Know that plants, animals, and humans are dependent on air and water.</p> <ul style="list-style-type: none"> • Know that all living things need air and water to survive. • Describe potentially dangerous pest controls used in the home. • Identify things that cause sickness when put into the air, water, or soil. • Identify different areas where health can be affected by air, water, or land pollution. • Identify actions that can prevent or reduce waste pollution. 	<ul style="list-style-type: none"> • Students will know that plants, animals, and humans are dependent on air and water (butterfly module). 	<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>4.3 Environmental Health 4.3.4. Environment & Ecology Grade 2</p>						
<p>B. Identify how human actions affect environmental health.</p> <ul style="list-style-type: none"> • Identify pollutants. • Identify sources of pollution. • Identify litter and its effect on the environment. • Describe how people can reduce pollution. 	<ul style="list-style-type: none"> • Students will identify how human actions affect environmental health (butterfly module). 	<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>4.3 Environmental Health 4.3.4. Environment & Ecology Grade 2</p>						
<p>C. Understand that the elements of natural systems are interdependent.</p> <ul style="list-style-type: none"> •Identify some of the organisms that live together in an ecosystem. •Understand that the components of a system all play a part in a healthy natural system. •Identify the effects of a healthy environment on the ecosystem. 	<ul style="list-style-type: none"> •Students will understand that the elements of natural systems are interdependent. 	<ul style="list-style-type: none"> •Brainstorming •Cooperative learning groups •Learning centers •Flexible grouping •Research projects •Mini projects •Direct instruction •Modeling •Guided practice •Independent practice •Newspaper •Graphic organizer •Dramatization •Journal/student notebooks •Outlining •Create KWL charts 	<ul style="list-style-type: none"> •Pebble, Sand, and silt module •Butterfly kits •Transparencies •Blackline masters •Posters •Study prints •Trade books •Teacher resource library •Video library •Websites •Library resources, print and electronic •Software •Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> •Make earthworm habitat •Map stone soup •Write about magic pebbles •Make sandpaper prints •Make a rock pack •Start a rock collection •Trade books •Science learning centers •Set up a terrarium •Construct a caterpillar model •Dramatize by dance caterpillar moves •Use puppets to dramatize the life cycle of a painted lady •Field trip •Create games •Computer software •Real life application •Research projects •Guest speakers •Experiments •Peer teaching

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<p>4.4 Agriculture and Society 4.4.4. Environment & Ecology Grade 2</p>						
<p>A. Know the importance of agriculture to humans.</p> <ul style="list-style-type: none"> •Identify people’s basic needs. •Explain the influence of agriculture on food, clothing, shelter, and culture form one area to another. •Know how people depend on agriculture. 		<ul style="list-style-type: none"> •Brainstorming •Cooperative learning groups •Learning centers •Flexible grouping •Research projects •Mini projects •Direct instruction •Modeling •Guided practice •Independent practice •Newspaper •Graphic organizer •Dramatization •Journal/student notebooks •Outlining •Create KWL charts 	<ul style="list-style-type: none"> •Pebble, Sand, and silt module •Butterfly kits •Transparencies •Blackline masters •Posters •Study prints •Trade books •Teacher resource library •Video library •Websites •Library resources, print and electronic •Software •Simulations 	<ul style="list-style-type: none"> •Pre and post unit assessments •Record sheets •Drawings •Class discussions •Teacher observations •Student investigations •Science notebook •Test/Quizzes •Study guides •Projects •Journals •Presentations •Teacher made test •Graphic organizers •Outlines •Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> •Make earthworm habitat •Map stone soup •Write about magic pebbles •Make sandpaper prints •Make a rock pack •Start a rock collection •Trade books •Science learning centers •Set up a terrarium •Construct a caterpillar model •Dramatize by dance caterpillar moves •Use puppets to dramatize the life cycle of a painted lady •Field trip •Create games •Computer software •Real life application •Research projects •Guest speakers •Experiments •Peer teaching

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<p>4.4 Agriculture and Society 4.4.4. Environment & Ecology Grade 2</p>						
<p>B. Identify the role of the sciences in Pennsylvania agriculture.</p> <ul style="list-style-type: none"> • Identify common animals found on Pennsylvania farms. • Identify common plants found on Pennsylvania farms. • Identify the parts of important agriculture related plants. 		<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>4.4 Agriculture and Society 4.4.4. Environment & Ecology Grade 2</p>						
<p>C. Know that food and fiber originate from plants and animals. •Define and identify food and fiber. •Identify agriculture products that are local and regional. •Identify an agricultural product based on its origin.</p>		<ul style="list-style-type: none"> •Brainstorming •Cooperative learning groups •Learning centers •Flexible grouping •Research projects •Mini projects •Direct instruction •Modeling •Guided practice •Independent practice •Newspaper •Graphic organizer •Dramatization •Journal/student notebooks •Outlining •Create KWL charts 	<ul style="list-style-type: none"> •Pebble, Sand, and silt module •Butterfly kits •Transparencies •Blackline masters •Posters •Study prints •Trade books •Teacher resource library •Video library •Websites •Library resources, print and electronic •Software •Simulations 	<ul style="list-style-type: none"> •Pre and post unit assessments •Record sheets •Drawings •Class discussions •Teacher observations •Student investigations •Science notebook •Test/Quizzes •Study guides •Projects •Journals •Presentations •Teacher made test •Graphic organizers •Outlines •Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> •Make earthworm habitat •Map stone soup •Write about magic pebbles •Make sandpaper prints •Make a rock pack •Start a rock collection •Trade books •Science learning centers •Set up a terrarium •Construct a caterpillar model •Dramatize by dance caterpillar moves •Use puppets to dramatize the life cycle of a painted lady •Field trip •Create games •Computer software •Real life application •Research projects •Guest speakers •Experiments •Peer teaching

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<p>4.4 Agriculture and Society 4.4.4. Environment & Ecology Grade 2</p>						
<p>D. Identify technology and energy use associated with agriculture.</p> <ul style="list-style-type: none"> •Identify the various tools and machinery necessary for farming. •Identify the types of energy used in producing food and fiber. •Identify tools and machinery used in the production of agricultural products. 		<ul style="list-style-type: none"> •Brainstorming •Cooperative learning groups •Learning centers •Flexible grouping •Research projects •Mini projects •Direct instruction •Modeling •Guided practice •Independent practice •Newspaper •Graphic organizer •Dramatization •Journal/student notebooks •Outlining •Create KWL charts 	<ul style="list-style-type: none"> •Pebble, Sand, and silt module •Butterfly kits •Transparencies •Blackline masters •Posters •Study prints •Trade books •Teacher resource library •Video library •Websites •Library resources, print and electronic •Software •Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> •Make earthworm habitat •Map stone soup •Write about magic pebbles •Make sandpaper prints •Make a rock pack •Start a rock collection •Trade books •Science learning centers •Set up a terrarium •Construct a caterpillar model •Dramatize by dance caterpillar moves •Use puppets to dramatize the life cycle of a painted lady •Field trip •Create games •Computer software •Real life application •Research projects •Guest speakers •Experiments •Peer teaching

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<p>4.5 Integrated Pest Management 4.5.4. Environment & Ecology Grade 2</p>						
<p>A. Know types of pests. • Identify classifications of pests. • Identify and categorize pests. • Know how pests fit into a food chain.</p>		<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>4.5 Integrated Pest Management 4.5.4. Environment & Ecology Grade 2</p>						
<p>B. Explain pest control.</p> <ul style="list-style-type: none"> • Know reasons why people control pests. • Identify different methods for controlling specific pests in the home, school, and community. 		<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>4.5 Integrated Pest Management 4.5.4. Environment & Ecology Grade 2</p>						
<p>C. Understand society’s need for integrated pest management.</p> <ul style="list-style-type: none"> • Identify integrated pest management practices in the home. • Identify integrated pest management practices outside the home. 		<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>4.6 Ecosystems and their Interactions 4.6.4. Environment & Ecology Grade 2</p>						
<p>A. Understand that living things are dependent on nonliving things in the environment for survival. Identify and categorize living and nonliving things.</p> <ul style="list-style-type: none"> • Describe the basic needs of an organism. • Identify basic needs of a plant and an animal and explain how their needs are met. • Identify plants and animals with their habitat and food sources. • Identify environmental variables that affect plant growth. • Describe how animals interact with plants to meet their needs for shelter. 	<ul style="list-style-type: none"> • Students will understand that living things are dependent on nonliving things in the environment for survival (butterfly module). 	<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>4.6 Ecosystems and their Interactions 4.6.4. Environment & Ecology Grade 2</p>						
<ul style="list-style-type: none"> •Describe how certain insects interact with soil for their needs. •Understand the components of a food chain. •Identify a local ecosystem and its living and nonliving components. •Identify a simple ecosystem and its living and nonliving components. •Identify common soil textures. •Identify animals that live underground. 		<ul style="list-style-type: none"> •Brainstorming •Cooperative learning groups •Learning centers •Flexible grouping •Research projects •Mini projects •Direct instruction •Modeling •Guided practice •Independent practice •Newspaper •Graphic organizer •Dramatization •Journal/student notebooks •Outlining •Create KWL charts 	<ul style="list-style-type: none"> •Pebble, Sand, and silt module •Butterfly kits •Transparencies •Blackline masters •Posters •Study prints •Trade books •Teacher resource library •Video library •Websites •Library resources, print and electronic •Software •Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> •Make earthworm habitat •Map stone soup •Write about magic pebbles •Make sandpaper prints •Make a rock pack •Start a rock collection •Trade books •Science learning centers •Set up a terrarium •Construct a caterpillar model •Dramatize by dance caterpillar moves •Use puppets to dramatize the life cycle of a painted lady •Field trip •Create games •Computer software •Real life application •Research projects •Guest speakers •Experiments •Peer teaching

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ENVIRONMENT AND ECOLOGY CURRICULUM**

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<p>4.6 Ecosystems and their Interactions 4.6.4. Environment & Ecology Grade 2</p>						
<p>B. Understand the concept of cycles.</p> <ul style="list-style-type: none"> • Explain the water cycle. • Explain the carbon dioxide/oxygen cycle (photosynthesis). 		<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>4.6 Ecosystems and their Interactions 4.6.4. Environment & Ecology Grade 2</p>						
<p>C. Identify how ecosystems change over time.</p>		<ul style="list-style-type: none"> •Brainstorming •Cooperative learning groups •Learning centers •Flexible grouping •Research projects •Mini projects •Direct instruction •Modeling •Guided practice •Independent practice •Newspaper •Graphic organizer •Dramatization •Journal/student notebooks •Outlining •Create KWL charts 	<ul style="list-style-type: none"> •Pebble, Sand, and silt module •Butterfly kits •Transparencies •Blackline masters •Posters •Study prints •Trade books •Teacher resource library •Video library •Websites •Library resources, print and electronic •Software •Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> •Make earthworm habitat •Map stone soup •Write about magic pebbles •Make sandpaper prints •Make a rock pack •Start a rock collection •Trade books •Science learning centers •Set up a terrarium •Construct a caterpillar model •Dramatize by dance caterpillar moves •Use puppets to dramatize the life cycle of a painted lady •Field trip •Create games •Computer software •Real life application •Research projects •Guest speakers •Experiments •Peer teaching

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<p>4.7 Threatened, Endangered and Extinct Species 4.7.4. Environment & Ecology Grade 2</p>						
<p>A. Identify differences in living things.</p> <ul style="list-style-type: none"> • Explain why plants and animals are different colors, shapes, and sizes and how these differences relate to their survival. • Identify characteristics that living things inherit from their parents. • Explain why each of the four elements in a habitat is essential for survival. • Identify local plants or animals and describe their habitats. 	<ul style="list-style-type: none"> • Students will identify differences in living things (butterfly module). • Students will explain camouflage. 	<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>4.7 Threatened, Endangered and Extinct Species 4.7.4. Environment & Ecology Grade 2</p>						
<p>B. Know that adaptations are important for survival.</p> <ul style="list-style-type: none"> • Explain how specific adaptations can help a living organism to survive. • Explain what happens to a living thing when its food, water, shelter, or space is changed. 	<ul style="list-style-type: none"> • Students will learn about the different techniques for survival. • Students will tell why living organisms need food, water, and shelter. 	<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>4.7 Threatened, Endangered and Extinct Species 4.7.4. Environment & Ecology Grade 2</p>						
<p>C. Define and understand extinction.</p> <ul style="list-style-type: none"> • Identify plants and animals that are extinct. • Explain why some plants and animals are extinct. • Know that there are local and state laws regarding plants and animals. 	<ul style="list-style-type: none"> • Students will observe local plants that caterpillars feed off of. 	<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>4.8 Humans and the Environment 4.8.4. Environment & Ecology Grade 2</p>						
<p>A. Identify the biological requirements of humans. • Explain how a dynamically changing environment provides for sustainability of living systems. • Identify several ways that people use natural resources.</p>		<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>4.8 Humans and the Environment 4.8.4. Environment & Ecology Grade 2</p>						
<p>B. Know that environmental conditions influence where and how people live.</p> <ul style="list-style-type: none"> • Identify how regional natural resources influence what people use. • Explain the influence of climate on how and where people live. 		<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>4.8 Humans and the Environment 4.8.4. Environment & Ecology Grade 2</p>						
<p>C. Explain how human activities may change the environment.</p> <ul style="list-style-type: none"> • Identify everyday human activities and how they affect the environment. • Identify examples of how human activities within a community affect the natural environment. 		<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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<p>4.8 Humans and the Environment 4.8.4. Environment & Ecology Grade 2</p>						
<p>D. Know the importance of natural resources in daily life.</p> <ul style="list-style-type: none"> • Identify items used in daily life that come from natural resources. • Identify ways to conserve our natural resources. • Identify major land uses in the community. 		<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching

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PA Academic Standards Student must be able to do	Objective Content or process student will be able to know and do	Instructional Methods	Materials/ Resources Textbooks, trade books, workbooks, software, hardware, etc.	*Assessment Procedures *Additional adaptations, modifications, and accommodations, and enrichment/ acceleration will be provided per IEP	*Additional Learning Opportunities for students who do not meet basic standards *Additional adaptations, modifications, and accommodations will be provided per IEP	*Extended Learning Opportunities for students who can go beyond the basic standards. *Additional enrichment/acceleration will be provided per IEP
4.9 Environmental Laws and Regulations 4.9.4. Environment & Ecology Grade 2						
A. Know that there are laws and regulations for the environment. • Explain how the recycling law impacts the school and home. • Identify and describe the role of a local or state agency that deals with environmental laws and regulations.		<ul style="list-style-type: none"> • Brainstorming • Cooperative learning groups • Learning centers • Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Newspaper • Graphic organizer • Dramatization • Journal/student notebooks • Outlining • Create KWL charts 	<ul style="list-style-type: none"> • Pebble, Sand, and silt module • Butterfly kits • Transparencies • Blackline masters • Posters • Study prints • Trade books • Teacher resource library • Video library • Websites • Library resources, print and electronic • Software • Simulations 	<ul style="list-style-type: none"> • Pre and post unit assessments • Record sheets • Drawings • Class discussions • Teacher observations • Student investigations • Science notebook • Test/Quizzes • Study guides • Projects • Journals • Presentations • Teacher made test • Graphic organizers • Outlines • Discussion 	<ul style="list-style-type: none"> • Coaching • Practice • Review • Re-teach • Individual instruction • Small group instruction • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structured study guide • Support resource kit • Flash cards • Do rock math • Make tracks and molds • Make sand paintings 	<ul style="list-style-type: none"> • Make earthworm habitat • Map stone soup • Write about magic pebbles • Make sandpaper prints • Make a rock pack • Start a rock collection • Trade books • Science learning centers • Set up a terrarium • Construct a caterpillar model • Dramatize by dance caterpillar moves • Use puppets to dramatize the life cycle of a painted lady • Field trip • Create games • Computer software • Real life application • Research projects • Guest speakers • Experiments • Peer teaching