WEST JEFFERSON HILLS SCHOOL DISTRICT
SCIENCE & TECHNOLOGY CURRICULUM

GRADE 3

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, 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
3.1 Science & Technology 3.1.4. Unifying Themes						
A. Know that natural and human-made objects are made up of parts. Identify and describe what parts make up a system. • Identify system parts that are natural and human-make (e.g., plant anatomy). • Describe the purpose of analyzing system.	• Students will know that natural objects and human made objects are made up of parts. • Students will identify rocks as aggregates of minerals, and they may also contain organic matter.	• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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3.1 Science & Technology 3.1.4. Unifying Themes						
B. Know models as useful simplifications of objects or processes. • 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).		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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3.1 Science & Technology 3.1.4. Unifying Themes						
C. Illustrate patterns that regularly occur and reoccur n nature. • Identify observable patterns (e.g., growth patterns in plants, crystal shapes in minerals). • Use knowledge of natural patterns to predict next occurrences (e.g., leaf patterns).	• Students will recognize the patterns that occur in nature. • Students will share what they know about plants and discuss what else they would like to know. • Students will practice observational and prediction skills. • Students will observe how the bean seed has changed after being soaked in water overnight. • Students will draw and label the parts of a bean seed. • Students will use a hand lens to observe dried bees.	• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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3.1 Science & Technology 3.1.4. Unifying Themes						
	• Students will observe the development of the fertilized pods between Day 17 and Day 35. Then they will record their observations by drawing, writing, and graphing. • Students will apply skills they have learned to construct an accurate model of the brassica. • Students will understand that different rocks have different properties. • Students will identify the properties of rocks and reflect the way they were formed and the minerals in them. • Students will identify and understand that each mineral is composed of only one substance, and that substance is the same in all samples of the mineral. • Students will share their ideas about rocks and discuss what they would like to learn about them. • Students will connect their descriptions of rocks with the properties of rocks.					

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3.1 Science & Technology 3.1.4. Unifying Themes						
D. Know that scale is an important attribute of natural and human made objects, events, and phenomena.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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3.1 Science & Technology 3.1.4. Unifying Themes						
E. Recognize change in natural and physical systems. • Recognize change as fundamental to science and technology concepts. • Examine and explain change by using time and measurement. • Describe the change to objects caused by heat, cold, light, or chemicals.	• Students will recognize change in natural and physical systems. • Students will learn how to measure their plants to the nearest centimeter. • Students begin keeping records of their plant growth on a bar graph. • Students predict how much their plants will grow each day. • Students will analyze their data on the growth spurt. • Students will understand that the properties of rocks and minerals determine how they are used.	• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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3.1 Science & Technology 3.1.4. Unifying Themes						
	• Students will observe three rocks and record their descriptions of them. • Students will test how much light shines through each of their minerals. • Students will compare and discuss each mineral's ability to transmit light. • Students will sort the minerals according to their ability to transmit light. • Students will record the results of the light test; opaque, translucent, transparent. • Students will use the process of comparing their test data with a reliable source of information to identify the unknowns. • Students will read about how the five chemicals they have been testing are used in everyday life.					

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3.1 Science & Technology 3.1.4. Unifying Themes						
	• Students will recognize change in natural and physical systems. • Students will develop an interest in and enthusiasm toward exploring and investigating properties of chemicals. • Students will develop an awareness of the importance of chemicals in our lives. • Students will develop an appreciation for the safe handling of chemicals. • Students will understand that chemicals undergo changes in form, color, or texture when they are mixed together, separated, or heated. • Students will understand that some chemicals can be identified by their interaction with water, vinegar, iodine, red cabbage juice, and heat.					

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3.1 Science & Technology 3.1.4. Unifying Themes						
	• Students will understand that different types of mixtures such as solutions or suspensions, are created when solids are combined with water. • Students will understand that chemicals can be classified as acids, bases, or neutral substances by their reactions with red cabbage juice. • Students will continue to explore the properties of the two types of mixtures, solutions, and suspensions.					

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3.2 Science & Technology 3.2.4 Inquiry & Design						
A. Identify and use the nature of scientific and technological knowledge. • 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.	• Students will provide clear explanations for observations. • Students will work together on a group project. • Students will value scientific information that has been collected and verified over time. • Students will record and discuss observations of rocks and minerals. • Students will reflect on experiences through writing and discussion. • Students will discuss their observations of rocks with their classmates.	• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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3.2 Science & Technology 3.2.4 Inquiry & Design						
	• Students will use a Venn diagram to identify and discuss similarities and differences among rocks. • Students will observe and describe properties of materials. • Students will predict, observe, describe, and record results of tests. • Students will compare and contrast test results to define the properties of household chemicals so they can be identified. • Students will read and write about crystals.					

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3.2 Science & Technology 3.2.4 Inquiry & Design						
	• Students will discuss how the use of a "compare circle" or control, help them interpret the results. • Students will analyze their recorded data, draw conclusions, and support these conclusions with their test results. • Students will decide which chemical tests they will perform and in what order they will perform them to solve a new problem.					

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3.2 Science & Technology 3.2.4 Inquiry & Design						
B. Describe objects in the world using the five senses. • Recognize observational descriptors from each of the five senses (e.g., see-blue, feel-rough). • Use observations to develop a descriptive vocabulary.	• Students will describe objects using 5 senses. • Students will learn that minerals differ in color, texture, smell, luster, transparency, hardness, shape, and reaction to magnets. • Students will use senses to observe and describe rocks and minerals. • Students will record and discuss observations of rocks and minerals. • Students will record and discuss observation results of tests on minerals. • Students will connect their descriptions of rocks with the properties of rocks. • Students will describe objects using 5 senses.	• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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3.2 Science & Technology 3.2.4 Inquiry & Design						
C. Recognize and use the elements of scientific inquiry to solve problems. • 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.	• Students will use elements of scientific inquiry. • Students will collect and organize their own materials for planting. • Students will set up their planters with wicks, fertilizer, potting mix and seeds. • Students will discuss the purpose of thinning and transplanting. • Students will share information about bees and raise questions about them. • Students will use the bee sticks to cross-pollinate their plants. • Students will harvest and thresh the seeds.	• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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3.2 Science & Technology 3.2.4 Inquiry & Design						
	• Students will count the seeds and compare that number with the original number of seeds planted (8) to determine their profit and loss. • Students will think about additional questions they have about plants and experiments that might help answer rocks and minerals. • Students will communicate observation and test results through writing and discussion. • Students will apply the streak test to their minerals. • Students will describe and record the results of the streak test.					

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3.2 Science & Technology 3.2.4 Inquiry & Design						
	• Students will use elements of scientific inquiry. • Students will compare and contrast test results to define the properties of household chemicals so they can be identified. • Students will apply previous learned knowledge and skills to new situations to solve a problem. • Students will develop proper lab techniques to ensure safety and avoid contamination. • Students will recognize the importance of guidelines for experimentations. • Students will record their thoughts about the significance of negative results and about chemical properties as indicators.					

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3.2 Science & Technology 3.2.4 Inquiry & Design						
D. Recognize and use the technological design process to solve problems. • 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.	• Students will recognize and use the technological design process to solve problems. • Students will apply previously learned concepts and skills to solve a problem. • Students will apply previous learned knowledge and skills to new situations to solve a problem. • Students will read to enhance understanding of chemistry concepts.	• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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3.3 Science & Technology 3.3.4 Biological Sciences						
A. Know the similarities and differences of living things. • Identify life processes of living things (e.g., growth, 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.	• Students will know similarities and differences of living things. • Students will observe two major developments: the true leaves and the flower buds. • Students will review the life cycle of a plant through different stages of development. • Students will record their observations in a notebook. • Students will discuss "Why bees are important"? • Students will apply skills they have learned to construct an accurate model of the Brasica. • Students will construct an accurate model of a bee. • Students will sort minerals on the basis of similarities and differences in identified properties.	• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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3.3 Science & Technology 3.3.4 Biological Sciences						
B. Know that living things are made up of parts that have specific functions. • Determine how different parts of a living thing work together to make the organism function.	• Students will know living things are made up of parts. • Students will understand that seeds have two main parts; the embryo and the cotyledon. • Students will use a hand lens to observe dried bees. • Students will make bee sticks to be used as a tool for pollination. • Students will observe details of the flower's anatomy and identify the major parts. • Students will learn more about the crucifer family: -petal -antler -stigma -important food group -how crucifer got its name. • Students will read and understand more about the interdependence of bees and flowers.	• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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3.3 Science & Technology 3.3.4 Biological Sciences						
C. Know that characteristics are inherited and, thus, offspring closely resemble their parents.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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3.3 Science & Technology 3.3.4 Biological Sciences						
D. Identify changes in living things over time.	• Students will identify changes in living things over time. • Students will interpret information on two different graphs. • Students will apply math skills to reading graphs.	• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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3.4 Science & Technology 3.4.4 Physical Science, Chemistry and Physics						
A. Recognize basic concepts about the structure and properties of matter. • 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).	• Students will recognize basic concepts about structure and properties of matter. • Students will understand that different rocks have different properties. • Students will learn that the properties of rocks reflect the way they were formed and the minerals in them. • Students will understand that minerals differ in color, texture, smell, luster, transparency, hardness, shape, and reaction to magnets. • Students will understand that properties of rocks and materials determine how they are used.	• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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3.4 Science & Technology 3.4.4 Physical Science, Chemistry and Physics						
	• Students will understand that properties of rocks and materials determine how they are used. • Students will understand the following terms: -properties -physical properties -field tests -granite -magma -gneiss -conglomerate • Students will observe and describe the properties of 12 rocks. They will be familiar with granite, gneiss, conglomerate, limestone, shale, sandstone, obsidian, basalt, pumice, slate, marble, and schist. • Students will sort rocks according to similarities and differences they observe.					

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3.4 Science & Technology 3.4.4 Physical Science, Chemistry and Physics						
	• Students will describe and discuss the properties that were the basics of each sort. • Students will sort rocks according to the properties suggested by their classmates. • Students will use properties related to how rocks are formed to sort rocks by classes: sedimentary, igneous, or metamorphic. • Students will classify minerals on the basis examples: -feldspar -quartz -salena -sulfide -silicate group • Students summarize the information they have recorded on each mineral and begin to identify its distinguishing properties.					

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3.4 Science & Technology 3.4.4 Physical Science, Chemistry and Physics						
	• Students will analyze a mineral identification card and select the properties that will allow them to identify a sample of that mineral from among the 12 minerals in their set. • Students will understand the compositions and properties of rocks. -investigate the properties of rocks -classify rocks based on properties -investigate the properties of minerals -classify minerals based on properties -contrast rocks and minerals • Students will understand the importance of the earth's mineral resources. -describe uses of rocks and minerals (e.g., limestone, marble, copper, etc.)					

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3.4 Science & Technology 3.4.4 Physical Science, Chemistry and Physics						
	• Students will understand the differences between physical and chemical properties and changes. • Students will recognize the differences between physical and chemical properties and changes. • Students will experience screening, filtering, and evaporating as a way of separating mixtures. • Recognize that there are differences between mixtures and solutions throughout various combinations of solids, liquids, and gases. • Explain that materials can be identified by their physical and chemical properties. • Students will describe objects by hardness and reactions to simple chemical tests. • Students will observe and describe the properties of common classroom objects.					

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3.4 Science & Technology 3.4.4 Physical Science, Chemistry and Physics						
	• Students will predict and then investigate what will happen when a greater amount of water is mixed with the unknown solids. • Students will filter the mixtures to explore further the physical properties of the solid.					

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3.4 Science & Technology 3.4.4 Physical Science, Chemistry and Physics						
B. Know basic energy types, sources, and conversions.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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3.4 Science & Technology 3.4.4 Physical Science, Chemistry and Physics						
C. Observe and describe different types of force and motion.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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3.4 Science & Technology 3.4.4 Physical Science, Chemistry and Physics						
D. Describe the composition and structure of the universe and the earth's place in it.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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3.5 Science & Technology 3.5.4 Earth Sciences						
A. Know basic land-forms and earth history.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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3.4 Science & Technology 3.4.4 Physical Science, Chemistry and Physics						
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).	• Students will know types and uses of earth materials. • Students will understand the properties and uses of rocks. • Students will sort minerals on the basis of similarities and differences in identified properties. • Students will develop an interest in investigating rocks and minerals. • Students will perform and interpret results of the following tests on minerals: streak, transparency, luster, hardness, and magnetism. • Students will recognize the importance of using multiple tests to create a profile of a mineral.	• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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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, 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
3.4 Science & Technology 3.4.4 Physical Science, Chemistry and Physics						
C. Know basic weather elements.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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3.4 Science & Technology 3.4.4 Physical Science, Chemistry and Physics						
D. Recognize the earth's different water resources.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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3.6 Science & Technology 3.6.4 Technology Education						
A. Know that biotechnologies relate to propagating, growing, maintaining, adapting, treating, and converting.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

WEST JEFFERSON HILLS SCHOOL DISTRICT
SCIENCE & TECHNOLOGY CURRICULUM

GRADE 3

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, 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
3.6 Science & Technology 3.6.4 Technology Education						
B. Know that information tech-nologies involve encoding, transmitting, receiving, storing, re-trieving, and decoding.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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SCIENCE & TECHNOLOGY CURRICULUM

GRADE 3

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3.6 Science & Technology 3.6.4 Technology Education						
C. Know physical technologies of structural design, analysis, and engineering, finance, production, marketing, research, and design.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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SCIENCE & TECHNOLOGY CURRICULUM

GRADE 3

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, 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
3.7 Science & Technology 3.7.4 Technology Devices						
A. Explore the use of basic tools, simple materials, and techniques to safely solve problems. • Select and safely apply appropriate tools and materials to solve simple problems.	• Students will explore the use of basic tools, simple materials, and the techniques to safely solve problems. • Students will make and use bee sticks to cross-pollinate their plants. • Students will use a hand lens to observe dried bees. • Students will develop an appreciation for the safe handling of chemicals. • Students will develop proper lab techniques to ensure safety and avoid contamination. • Students will learn to perform different physical and chemical tests.	• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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GRADE 3

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, 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
3.7 Science & Technology 3.7.4 Technology Devices						
	• Students will learn about the importance of safety in science class. • Students will learn about the safety guidelines when heating materials.					

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GRADE 3

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3.7 Science & Technology 3.7.4 Technology Devices						
B. Select appropriate instruments to study materials. • Develop simple skills to measure, record, cut, and fasten. • Explain appropriate instrument selection for specific tasks.	• Students will explore the use of basic tools, simple material, and the techniques to safely solve problems. • Students will select appropriate instruments to study materials. • Students will learn how to use a hand lens effectively. • Students will learn about the importance of safety in science class.	• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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GRADE 3

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, 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
3.7 Science & Technology 3.7.4 Technology Devices						
C. Identify basic computer operations and concepts.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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SCIENCE & TECHNOLOGY CURRICULUM

GRADE 3

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, 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
3.7 Science & Technology 3.7.4 Technology Devices						
D. Use basic computer software.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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SCIENCE & TECHNOLOGY CURRICULUM

GRADE 3

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, 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
3.7 Science & Technology 3.7.4 Technology Devices						
E. Identify basic computer communications systems.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

WEST JEFFERSON HILLS SCHOOL DISTRICT
SCIENCE & TECHNOLOGY CURRICULUM

GRADE 3

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3.8 Science & Technology 3.8.4. Science, Technology, and Human Endeavors						
A. Know that people select, create, and use science and technology and that they are limited by social and physical restraints.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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GRADE 3

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, 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
3.8 Science & Technology 3.8.4. Science, Technology, and Human Endeavors						
B. Know how human ingenuity and technological resources satisfy specific human needs and improve the quality of life.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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SCIENCE & TECHNOLOGY CURRICULUM

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3.8 Science & Technology 3.8.4. Science, Technology, and Human Endeavors						
C. Know the pros and cons of possible solutions to scientific and technological problems in society.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

WEST JEFFERSON HILLS SCHOOL DISTRICT
ENVIRONMENT AND ECOLOGY CURRICULUM

GRADE 3

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4.1 Watersheds and Wetlands 4.1.4 Environment & Ecology Grade 3						
A. Identify various types of water environments.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

WEST JEFFERSON HILLS SCHOOL DISTRICT
ENVIRONMENT AND ECOLOGY CURRICULUM

GRADE 3

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, 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
4.1 Watersheds and Wetlands 4.1.4 Environment & Ecology Grade 3						
B. Explain the differences between moving and still water.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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4.1 Watersheds and Wetlands 4.1.4 Environment & Ecology Grade 3						
C. Identify living things found in water environments.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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4.1 Watersheds and Wetlands 4.1.4 Environment & Ecology Grade 3						
D. Identify a wetland and the plants and animals found there.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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4.1 Watersheds and Wetlands 4.1.4 Environment & Ecology Grade 3						
E. Recognize the impact of watersheds and wetlands on animals and plants.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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4.2 Renewable and Nonrenewable Resources 4.2.4. Environment & Ecology Grade 3						
A. Identify needs of people. • Identify plants, animals, water, air, minerals, and fossil fuels as natural resources.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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4.2 Renewable and Nonrenewable Resources 4.2.4 Environment & Ecology Grade 3						
B. Identify products derived from natural resources.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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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, 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
4.2 Renewable and Nonrenewable Resources 4.2.4. Environment & Ecology Grade 3						
C. Know that some natural resources have limited life spans.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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4.2 Renewable and Nonrenewable Resources 4.2.4. Environment & Ecology Grade 3						
D. Identify by-products and their use of natural resources.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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4.3 Environmental Health 4.3.4. Environment & Ecology Grade 3						
A. Know that plants, animals, and humans are dependent on air and water. • Know that all living things need air and water to survive.	• Students will know that plants, animals, and humans are dependent on air and water.	• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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4.3 Environmental Health 4.3.4. Environment & Ecology Grade 3						
B. Identify how human actions affect environmental health.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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4.3 Environmental Health 4.3.4. Environment & Ecology Grade 3						
C. Understand that the elements of natural systems are interdependent.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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4.4 Agriculture and Society 4.4.4. Environment & Ecology Grade 3						
A. Know the importance of agriculture to humans.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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4.4 Agriculture and Society 4.4.4. Environment & Ecology Grade 3						
B. Identify the role of the sciences in Pennsylvania agriculture.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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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, 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
4.4 Agriculture and Society 4.4.4. Environment & Ecology Grade 3						
C. Know that food and fiber originate from plants and animals.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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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, 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
4.4 Agriculture and Society 4.4.4. Environment & Ecology Grade 3						
D. Identify technology and energy use associated with agriculture.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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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, 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
4.5 Integrated Pest Management 4.5.4. Environment & Ecology Grade 3						
A. Know types of pests.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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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, 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
4.5 Integrated Pest Management 4.5.4. Environment & Ecology Grade 3						
B. Explain pest control.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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4.5 Integrated Pest Management 4.5.4. Environment & Ecology Grade 3						
C. Understand society's need for integrated pest management.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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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, 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
4.6 Ecosystems and their Interactions 4.6.4. Environment & Ecology Grade 3						
A. Understand that living things are dependent on nonliving things in the environment for survival. Identify and categorize living and nonliving things. • 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.	• Students will understand that living things are dependent on nonliving things in the environment for survival.	• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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4.6 Ecosystems and their Interactions 4.6.4. Environment & Ecology Grade 3						
B. Understand the concept of cycles.	• Students will understand the concept of cycles.	• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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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, 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
4.6 Ecosystems and their Interactions 4.6.4. Environment & Ecology Grade 3						
C. Identify how ecosystems change over time.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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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, 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
4.7 Threatened, Endangered and Extinct Species 4.7.4. Environment & Ecology Grade 3						
A. Identify differences in living things.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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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, 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
4.7 Threatened, Endangered and Extinct Species 4.7.4. Environment & Ecology Grade 3						
B. Know that adaptations are important for survival.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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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, 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
4.7 Threatened, Endangered and Extinct Species 4.7.4. Environment & Ecology Grade 3						
C. Define and understand extinction.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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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, 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
4.8 Humans ad the Environment 4.8.4. Environment & Ecology Grade 3						
A. Identify the biological requirements of humans.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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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, 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
4.8 Humans ad the Environment 4.8.4. Environment & Ecology Grade 3						
B. Know that environmental conditions influence where and how people live.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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4.8 Humans ad the Environment 4.8.4. Environment & Ecology Grade 3						
C. Explain how human activities may change the environment.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

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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, 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
4.8 Humans ad the Environment 4.8.4. Environment & Ecology Grade 3						
D. Know the importance of natural resources in daily life. • Identify items used in daily life that come from natural resources.	• Students will identify common uses of rocks and minerals in everyday life.	• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases

WEST JEFFERSON HILLS SCHOOL DISTRICT
ENVIRONMENT AND ECOLOGY CURRICULUM

GRADE 3

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, 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 3						
A. Know that there are laws and regulations for the environment.		• Flexible grouping • Research projects • Mini projects • Direct instruction • Modeling • Guided practice • Independent practice • Learning centers • Newspaper • Graphic organizers • Dramatization • Simulations • Journals/ notebooks • Outlining • KWL charts • Brainstorming • Venn Diagrams • Cooperative learning groups • Classroom discussion	• Plant growth and development kit • Chemical test kit • Rock and materials kit • Safety posters • Supplemental materials • Transparencies • Black line masters • Posters • Study points • Trade books • Teacher resource library • Video library • Websites • Library resources, print, and electronics • Maps and globes • Carnegie loan collection • Software • Curriculum integration • Safety notes	• Test • Quizzes • Study guides • Observations • Debates • Projects • Rubics • Journals/ notebooks • Presentations • Teacher made test • Discussion • Graphic organizer • Outlines • Projects • Experiments • Previous knowledge activities • Teacher observation • Record charts • Streamline cleanup • Chemical lab bank • Student activity book	• Review • Re-teach • Individual instruction • Small group instruction • Pre-teach • Alternative assignments • Extended time • Re-read • Instructional games • Graphic organizer • Structure study guides • Support resource • Design leaf collection • Collect data • Make a bee model	• Peer tutoring • Trade books • Create games • Peer teaching • Computer activities • Real life applications • Research projects • Field trips • Guest speakers • Displays • Surveys • Planting • Design an investigation • Conduct an experiment • Scientific drawings • Create a rock learning center • Design a pet rock • Have students read about acids, bases