

**WEST JEFFERSON HILLS SCHOOL DISTRICT
ENVIRONMENTAL SCIENCE CURRICULUM**

GRADE 12

<p style="text-align: center;">PA Academic Standards Student must be able to do</p>	<p style="text-align: center;">Objective Content or process student will be able to know and do</p>	<p style="text-align: center;">Instructional Methods</p>	<p style="text-align: center;">Materials/ Resources Textbooks, trade books, workbooks, software, hardware, etc.</p>	<p style="text-align: center;">*Assessment Procedures *Additional adaptations, modifications, accommodations, and enrichment/ acceleration will be provided per IEP</p>	<p style="text-align: center;">*Additional Learning Opportunities for students who do not meet basic standards *Additional adaptations, modifications, and accommodations will be provided per IEP</p>	<p style="text-align: center;">*Extended Learning Opportunities for students who can go beyond the basic standards. *Additional enrichment/acceleration will be provided per IEP</p>
<p>4.1 Watersheds and Wetlands</p>						
<p>A. Categorize stream order in a watershed.</p>	<ul style="list-style-type: none"> •Identify Pennsylvania’s major watersheds and their related river systems. •Explain the concept of a stream order. •Identify the order of watercourses within a major river’s watershed. •Compare and contrast the physical differences found in the stream continuum from headwater to mouth (e.g., the velocity, volume of water). 	<ul style="list-style-type: none"> •Direct Instruction •Partner Work •Group Work •Lab Work •Study Skills •Demonstrations •Movie Clips •Graphing/ Analysis •Computer Projects •Cooperative Learning •Guided/Paired/ independent Reading •Brainstorming •Class discussions • Note guides • Dissections 	<ul style="list-style-type: none"> •Textbook/ Supplements •Transparencies •PowerPoint •Lab Manual Diagrams •Periodic Table •Calculators •Handouts Lab Equipment •Model Kits •Microscopes •CBL-Vernier Probes •Measuring Devices •Computer (classroom) •Computer (lab) •Excel •Preserved and Living Specimens •Chemicals •Videos •Testing Kits/materials •Internet •Magazines and Journals •Instructional CD’s 	<ul style="list-style-type: none"> •Teacher Observation •Tests •Quizzes •Problem Solving •In-Class Work •Homework •Lab write-ups •Midterms •Final •Independent Projects •Research Papers •Critical Thinking •Case Studies •Essays •Rubric •Peer Evaluation 	<ul style="list-style-type: none"> •Review and Re-teach •Small Group Instructions •Access to Learning Support Teachers •Adapted Lessons •Extended Time •Tutoring •Technology •Extended Time • Outside Speakers 	<ul style="list-style-type: none"> •Additional Reading •Science Competition (Envirothon) •Independent Projects •Field Trips •Science Clubs •Summer Assignments •Internships •Shadowing Programs

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<p>4.1 Watersheds and Wetlands</p>						
<p>B. Understand the role of the watershed.</p> <p>Explain the relationships that exist within watersheds in the United States.</p>	<ul style="list-style-type: none"> ●Identify and explain what determines the boundaries of a watershed. ●Explain factors that affect water quality and flow through a watershed. ●Understand that various ecosystems may be contained in a watershed. 	<ul style="list-style-type: none"> ●Direct Instruction ●Partner Work ●Group Work ●Lab Work ●Study Skills ●Demonstrations ●Movie Clips ●Graphing/ Analysis ●Computer Projects ●Cooperative Learning ●Guided/ Paired/ independent Reading ●Brainstorming ●Class discussions ●Note guides ●Dissections 	<ul style="list-style-type: none"> ●Textbook/ Supplements ●Transparencies ●PowerPoint ●Lab Manual Diagrams ●Periodic Table ●Calculators ●Handouts Lab Equipment ●Model Kits ●Microscopes ●CBL-Vernier Probes ●Measuring Devices ●Computer (classroom) ●Computer (lab) ●Excel ●Preserved and Living Specimens ●Chemicals ●Videos ●Testing Kits/materials ●Internet ●Magazines and Journals ●Instructional CD's 	<ul style="list-style-type: none"> ●Teacher Observation ●Tests ●Quizzes ●Problem Solving ●In-Class Work ●Homework ●Lab write-ups ●Midterms ●Final ●Independent Projects ●Research Papers ●Critical Thinking ●Case Studies ●Essays ●Rubric ●Peer Evaluation 	<ul style="list-style-type: none"> ●Review and Re-teach ●Small Group Instructions ●Access to Learning Support Teachers ●Adapted Lessons ●Extended Time ●Tutoring ●Technology ●Extended Time ●Outside Speakers 	<ul style="list-style-type: none"> ●Additional Reading ●Science Competition (Envirothon) ●Independent Projects ●Field Trips ●Science Clubs ●Summer Assignments ●Internships ●Shadowing Programs

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<p>4.1 Watersheds and Wetlands</p>						
<p>C. Analyze the parameters of a watershed.</p>	<ul style="list-style-type: none"> • Interpret physical, chemical, and biological data as a means of assessing the environmental quality of a watershed. • Apply appropriate techniques in the analysis of a watershed (e.g., water quality, biological diversity, erosion, sedimentation). 	<ul style="list-style-type: none"> • Direct Instruction • Partner Work • Group Work • Lab Work • Study Skills • Demonstrations • Movie Clips • Graphing/ Analysis • Computer Projects • Cooperative Learning • Guided/ Paired/ independent Reading • Brainstorming • Class discussions • Note guides • Dissections 	<ul style="list-style-type: none"> • Textbook/ Supplements • Transparencies • PowerPoint • Lab Manual Diagrams • Periodic Table • Calculators • Handouts Lab Equipment • Model Kits • Microscopes • CBL-Vernier Probes • Measuring Devices • Computer (classroom) • Computer (lab) • Excel • Preserved and Living Specimens • Chemicals • Videos • Testing Kits/materials • Internet • Magazines and Journals • Instructional CD's 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Homework • Lab write-ups • Midterms • Final • Independent Projects • Research Papers • Critical Thinking • Case Studies • Essays • Rubric • Peer Evaluation 	<ul style="list-style-type: none"> • Review and Re-teach • Small Group Instructions • Access to Learning Support Teachers • Adapted Lessons • Extended Time • Tutoring • Technology • Extended Time • Outside Speakers 	<ul style="list-style-type: none"> • Additional Reading • Science Competition (Envirothon) • Independent Projects • Field Trips • Science Clubs • Summer Assignments • Internships • Shadowing Programs

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4.1 Watersheds and Wetlands						
D. Analyze the complex and diverse ecosystems of wetlands.	<ul style="list-style-type: none"> • Describe wetlands in terms of their effects (e.g., habitat, flood, buffer zones, prevention areas, nurseries, food production areas). • Explain how a wetland influences water quality, wildlife, and water retention. • Explain the functions of habitat, nutrient production, migration stopover, and groundwater recharge as it relates to wetlands. • Explain the dynamics of a wetland ecosystem. • Describe and analyze different types of wetlands. 	<ul style="list-style-type: none"> • Direct Instruction • Partner Work • Group Work • Lab Work • Study Skills • Demonstrations • Movie Clips • Graphing/ Analysis • Computer Projects • Cooperative Learning • Guided/ Paired/ independent Reading • Brainstorming • Class discussions • Note guides • Dissections 	<ul style="list-style-type: none"> • Textbook/ Supplements • Transparencies • PowerPoint • Lab Manual Diagrams • Periodic Table • Calculators • Handouts Lab Equipment • Model Kits • Microscopes • CBL- Vernier Probes • Measuring Devices • Computer (classroom) • Computer (lab) • Excel • Preserved and Living Specimens • Chemicals • Videos • Testing Kits/materials • Internet • Magazines and Journals • Instructional CD's 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Homework • Lab write-ups • Midterms • Final • Independent Projects • Research Papers • Critical Thinking • Case Studies • Essays • Rubric • Peer Evaluation 	<ul style="list-style-type: none"> • Review and Re-teach • Small Group Instructions • Access to Learning Support Teachers • Adapted Lessons • Extended Time • Tutoring • Technology • Extended Time • Outside Speakers 	<ul style="list-style-type: none"> • Additional Reading • Science Competition (Envirothon) • Independent Projects • Field Trips • Science Clubs • Summer Assignments • Internships • Shadowing Programs

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<p>4.1 Watersheds and Wetlands</p>						
<p>E. Identify and describe natural and human events on watersheds and wetlands.</p> <p>Evaluate the trade-offs, costs, and benefits of conserving watersheds and wetlands.</p>	<ul style="list-style-type: none"> • Describe how natural events affect watersheds and wetlands (e.g., drought, floods). • Identify the effects of humans and human events on watersheds and wetlands. • Identification of various state and federal laws regulating wetland protection 	<ul style="list-style-type: none"> • Direct Instruction • Partner Work • Group Work • Lab Work • Study Skills • Demonstrations • Movie Clips • Graphing/ Analysis • Computer Projects • Cooperative Learning • Guided/ Paired/ independent Reading • Brainstorming • Class discussions • Note guides • Dissections 	<ul style="list-style-type: none"> • Textbook/ Supplements • Transparencies • PowerPoint • Lab Manual Diagrams • Periodic Table • Calculators • Handouts Lab Equipment • Model Kits • Microscopes • CBL- Vernier Probes • Measuring Devices • Computer (classroom) • Computer (lab) • Excel • Preserved and Living Specimens • Chemicals • Videos • Testing Kits/materials • Internet • Magazines and Journals • Instructional CD's 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Homework • Lab write-ups • Midterms • Final • Independent Projects • Research Papers • Critical Thinking • Case Studies • Essays • Rubric • Peer Evaluation 	<ul style="list-style-type: none"> • Review and Re-teach • Small Group Instructions • Access to Learning Support Teachers • Adapted Lessons • Extended Time • Tutoring • Technology • Extended Time • Outside Speakers 	<ul style="list-style-type: none"> • Additional Reading • Science Competition (Envirothon) • Independent Projects • Field Trips • Science Clubs • Summer Assignments • Internships • Shadowing Programs

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<p>4.2. Renewable and Nonrenewable Resources</p>						
<p>A. Explain that renewable and nonrenewable resources supply energy and materials</p> <p>Analyze the use of renewable and nonrenewable resources.</p>	<ul style="list-style-type: none"> •Identify alternative sources of energy. •Compare and contrast the cycles of various natural resources. •Explain the effects on the environment and sustainability through the use of nonrenewable resources. •Evaluate the advantages and disadvantages of reusing our natural resources. 	<ul style="list-style-type: none"> •Direct Instruction • Partner Work • Group Work • Lab Work • Study Skills • Demonstrations • Movie Clips • Graphing/ Analysis • Computer Projects • Cooperative Learning • Guided/ Paired/ independent Reading • Brainstorming • Class discussions • Note guides • Dissections 	<ul style="list-style-type: none"> •Textbook/ Supplements •Transparencies •PowerPoint •Lab Manual Diagrams •Periodic Table •Calculators •Handouts Lab Equipment •Model Kits •Microscopes •CBL-Vernier Probes •Measuring Devices •Computer (classroom) •Computer (lab) •Excel •Preserved and Living Specimens •Chemicals •Videos •Testing Kits/materials •Internet •Magazines and Journals •Instructional CD's 	<ul style="list-style-type: none"> •Teacher Observation •Tests •Quizzes •Problem Solving •In-Class Work •Homework •Lab write-ups •Midterms •Final •Independent Projects •Research Papers •Critical Thinking •Case Studies •Essays •Rubric •Peer Evaluation 	<ul style="list-style-type: none"> •Review and Re-teach •Small Group Instructions •Access to Learning Support Teachers •Adapted Lessons •Extended Time •Tutoring •Technology •Extended Time • Outside Speakers 	<ul style="list-style-type: none"> •Additional Reading •Science Competition (Envirothon) •Independent Projects •Field Trips •Science Clubs •Summer Assignments •Internships •Shadowing Programs

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<p>4.2. Renewable and Nonrenewable Resources</p>						
<p>B. Evaluate factors affecting availability of natural resources.</p> <p>Analyze factors affecting the availability of renewable and nonrenewable resources.</p>	<ul style="list-style-type: none"> • Describe natural occurrences that may affect the natural resources. • Analyze technologies that affect the use of our natural resources. • Evaluate the effect of consumer desires on various natural resources. • Compare the economics of different areas based on the availability and accessibility of the natural resources. 	<ul style="list-style-type: none"> • Direct Instruction • Partner Work • Group Work • Lab Work • Study Skills • Demonstrations • Movie Clips • Graphing/ Analysis • Computer Projects • Cooperative Learning • Guided/ Paired/ independent Reading • Brainstorming • Class discussions • Note guides • Dissections 	<ul style="list-style-type: none"> • Textbook/ Supplements • Transparencies • PowerPoint • Lab Manual Diagrams • Periodic Table • Calculators • Handouts Lab Equipment • Model Kits • Microscopes • CBL- Vernier Probes • Measuring Devices • Computer (classroom) • Computer (lab) • Excel • Preserved and Living Specimens • Chemicals • Videos • Testing Kits/materials • Internet • Magazines and Journals • Instructional CD's 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Homework • Lab write-ups • Midterms • Final • Independent Projects • Research Papers • Critical Thinking • Case Studies • Essays • Rubric • Peer Evaluation 	<ul style="list-style-type: none"> • Review and Re-teach • Small Group Instructions • Access to Learning Support Teachers • Adapted Lessons • Extended Time • Tutoring • Technology • Extended Time • Outside Speakers 	<ul style="list-style-type: none"> • Additional Reading • Science Competition (Envirothon) • Independent Projects • Field Trips • Science Clubs • Summer Assignments • Internships • Shadowing Programs

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4.2. Renewable and Nonrenewable Resources						
C. Analyze how man-made systems have impacted the management and distribution of natural resources.	<ul style="list-style-type: none"> • Explain the complete cycle of a natural resource, from extraction to disposal, detailing its uses and effects on the environment. • Examine conservation practices in different countries. • Analyze the costs and benefits of different man-made systems and how they use renewable and nonrenewable natural resources. 	<ul style="list-style-type: none"> • Direct Instruction • Partner Work • Group Work • Lab Work • Study Skills • Demonstrations • Movie Clips • Graphing/ Analysis • Computer Projects • Cooperative Learning • Guided/ Paired/ independent Reading • Brainstorming • Class discussions • Note guides • Dissections 	<ul style="list-style-type: none"> • Textbook/ Supplements • Transparencies • PowerPoint • Lab Manual Diagrams • Periodic Table • Calculators • Handouts Lab Equipment • Model Kits • Microscopes • CBL- Vernier Probes • Measuring Devices • Computer (classroom) • Computer (lab) • Excel • Preserved and Living Specimens • Chemicals • Videos • Testing Kits/materials • Internet • Magazines and Journals • Instructional CD's 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Homework • Lab write-ups • Midterms • Final • Independent Projects • Research Papers • Critical Thinking • Case Studies • Essays • Rubric • Peer Evaluation 	<ul style="list-style-type: none"> • Review and Re-teach • Small Group Instructions • Access to Learning Support Teachers • Adapted Lessons • Extended Time • Tutoring • Technology • Extended Time • Outside Speakers 	<ul style="list-style-type: none"> • Additional Reading • Science Competition (Envirothon) • Independent Projects • Field Trips • Science Clubs • Summer Assignments • Internships • Shadowing Programs

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4.2. Renewable and Nonrenewable Resources						
D. Evaluate solid waste management practices.	<ul style="list-style-type: none"> •Examine and explain the path of a recyclable material from collection to waste, reuse, or recycling identifying the market forces. •Understand current regulations concerning recycling and solid waste. •Research new technologies in the use, reuse, or recycling of materials. 	<ul style="list-style-type: none"> • Direct Instruction • Partner Work • Group Work • Lab Work • Study Skills • Demonstrations • Movie Clips • Graphing/ Analysis • Computer Projects • Cooperative Learning • Guided/ Paired/ independent Reading • Brainstorming • Class discussions • Note guides • Dissections 	<ul style="list-style-type: none"> • Textbook/ Supplements • Transparencies • PowerPoint • Lab Manual Diagrams • Periodic Table • Calculators • Handouts Lab Equipment • Model Kits • Microscopes • CBL- Vernier Probes • Measuring Devices • Computer (classroom) • Computer (lab) • Excel • Preserved and Living Specimens • Chemicals • Videos • Testing Kits/materials • Internet • Magazines and Journals • Instructional CD's 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Homework • Lab write-ups • Midterms • Final • Independent Projects • Research Papers • Critical Thinking • Case Studies • Essays • Rubric • Peer Evaluation 	<ul style="list-style-type: none"> • Review and Re-teach • Small Group Instructions • Access to Learning Support Teachers • Adapted Lessons • Extended Time • Tutoring • Technology • Extended Time • Outside Speakers 	<ul style="list-style-type: none"> • Additional Reading • Science Competition (Envirothon) • Independent Projects • Field Trips • Science Clubs • Summer Assignments • Internships • Shadowing Programs

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<p>4.3 Environmental Health</p>						
<p>B. Analyze the local, regional, and national impacts of environmental health.</p>	<ul style="list-style-type: none"> • Research and analyze the local, state, and national laws that deal with point and non-point source pollution of the Chesapeake Bay. 	<ul style="list-style-type: none"> • Direct Instruction • Partner Work • Group Work • Lab Work • Study Skills • Demonstrations • Movie Clips • Graphing/ Analysis • Computer Projects • Cooperative Learning • Guided/ Paired/ independent Reading • Brainstorming • Class discussions • Note guides • Dissections 	<ul style="list-style-type: none"> • Textbook/ Supplements • Transparencies • PowerPoint • Lab Manual Diagrams • Periodic Table • Calculators • Handouts Lab Equipment • Model Kits • Microscopes • CBL-Vernier Probes • Measuring Devices • Computer (classroom) • Computer (lab) • Excel • Preserved and Living Specimens • Chemicals • Videos • Testing Kits/materials • Internet • Magazines and Journals • Instructional CD's 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Homework • Lab write-ups • Midterms • Final • Independent Projects • Research Papers • Critical Thinking • Case Studies • Essays • Rubric • Peer Evaluation 	<ul style="list-style-type: none"> • Review and Re-teach • Small Group Instructions • Access to Learning Support Teachers • Adapted Lessons • Extended Time • Tutoring • Technology • Extended Time • Outside Speakers 	<ul style="list-style-type: none"> • Additional Reading • Science Competition (Envirothon) • Independent Projects • Field Trips • Science Clubs • Summer Assignments • Internships • Shadowing Programs

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4.3 Environmental Health						
C. Explain biological diversity as an indicator of healthy environment.	<ul style="list-style-type: none"> • Explain species diversity • Analyze the effects of species extinction on the health of an ecosystem. 	<ul style="list-style-type: none"> • Direct Instruction • Partner Work • Group Work • Lab Work • Study Skills • Demonstrations • Movie Clips • Graphing/ Analysis • Computer Projects • Cooperative Learning • Guided/ Paired/ independent Reading • Brainstorming • Class discussions • Note guides • Dissections 	<ul style="list-style-type: none"> • Textbook/ Supplements • Transparencies • PowerPoint • Lab Manual Diagrams • Periodic Table • Calculators • Handouts Lab Equipment • Model Kits • Microscopes • CBL-Vernier Probes • Measuring Devices • Computer (classroom) • Computer (lab) • Excel • Preserved and Living Specimens • Chemicals • Videos • Testing Kits/materials • Internet • Magazines and Journals • Instructional CD's 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Homework • Lab write-ups • Midterms • Final • Independent Projects • Research Papers • Critical Thinking • Case Studies • Essays • Rubric • Peer Evaluation 	<ul style="list-style-type: none"> • Review and Re-teach • Small Group Instructions • Access to Learning Support Teachers • Adapted Lessons • Extended Time • Tutoring • Technology • Extended Time • Outside Speakers 	<ul style="list-style-type: none"> • Additional Reading • Science Competition (Envirothon) • Independent Projects • Field Trips • Science Clubs • Summer Assignments • Internships • Shadowing Programs

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<p>4.4 Agriculture and Society</p>						
<p>A. Analyze the management practices in the agriculture business.</p>	<ul style="list-style-type: none"> • Analyze the effects of agricultural practices on the economy. 	<ul style="list-style-type: none"> • Direct Instruction • Partner Work • Group Work • Lab Work • Study Skills • Demonstrations • Movie Clips • Graphing/ Analysis • Computer Projects • Cooperative Learning • Guided/ Paired/ independent Reading • Brainstorming • Class discussions • Note guides • Dissections 	<ul style="list-style-type: none"> • Textbook/ Supplements • Transparencies • PowerPoint • Lab Manual Diagrams • Periodic Table • Calculators • Handouts Lab Equipment • Model Kits • Microscopes • CBL-Vernier Probes • Measuring Devices • Computer (classroom) • Computer (lab) • Excel • Preserved and Living Specimens • Chemicals • Videos • Testing Kits/materials • Internet • Magazines and Journals • Instructional CD's 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Homework • Lab write-ups • Midterms • Final • Independent Projects • Research Papers • Critical Thinking • Case Studies • Essays • Rubric • Peer Evaluation 	<ul style="list-style-type: none"> • Review and Re-teach • Small Group Instructions • Access to Learning Support Teachers • Adapted Lessons • Extended Time • Tutoring • Technology • Extended Time • Outside Speakers 	<ul style="list-style-type: none"> • Additional Reading • Science Competition (Envirothon) • Independent Projects • Field Trips • Science Clubs • Summer Assignments • Internships • Shadowing Programs

**WEST JEFFERSON HILLS SCHOOL DISTRICT
ENVIRONMENTAL SCIENCE CURRICULUM**

GRADE 12

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4.5 Integrated Pest Management						
A. Research integrated pest management systems.	<ul style="list-style-type: none"> • Analyze the threshold limits of pests and the need for intervention in a managed environment. 	<ul style="list-style-type: none"> • Direct Instruction • Partner Work • Group Work • Lab Work • Study Skills • Demonstrations • Movie Clips • Graphing/ Analysis • Computer Projects • Cooperative Learning • Guided/ Paired/ independent Reading • Brainstorming • Class discussions • Note guides • Dissections 	<ul style="list-style-type: none"> • Textbook/ Supplements • Transparencies • PowerPoint • Lab Manual Diagrams • Periodic Table • Calculators • Handouts Lab Equipment • Model Kits • Microscopes • CBL- Vernier Probes • Measuring Devices • Computer (classroom) • Computer (lab) • Excel • Preserved and Living Specimens • Chemicals • Videos • Testing Kits/materials • Internet • Magazines and Journals • Instructional CD's 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Homework • Lab write-ups • Midterms • Final • Independent Projects • Research Papers • Critical Thinking • Case Studies • Essays • Rubric • Peer Evaluation 	<ul style="list-style-type: none"> • Review and Re-teach • Small Group Instructions • Access to Learning Support Teachers • Adapted Lessons • Extended Time • Tutoring • Technology • Extended Time • Outside Speakers 	<ul style="list-style-type: none"> • Additional Reading • Science Competition (Envirothon) • Independent Projects • Field Trips • Science Clubs • Summer Assignments • Internships • Shadowing Programs

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ENVIRONMENTAL SCIENCE CURRICULUM**

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<p>4.5 Integrated Pest Management</p>						
<p>B. Analyze health benefits and risks associated with integrated pest management.</p> <p>Research and analyze integrated pest management practices globally.</p>	<ul style="list-style-type: none"> • Identify the health risks associated with chemicals used in common pesticides. • Assess various levels of control within different integrated pest management practices including increased immunity to pesticides, food safety, sterilization, nutrient management and weed control. • Research worldwide integrated pest management systems and evaluate the level of impact. • Research and analyze the international regulations that exist related to integrated pest management. 	<ul style="list-style-type: none"> • Direct Instruction • Partner Work • Group Work • Lab Work • Study Skills • Demonstrations • Movie Clips • Graphing/ Analysis • Computer Projects • Cooperative Learning • Guided/ Paired/ independent Reading • Brainstorming • Class discussions • Note guides • Dissections 	<ul style="list-style-type: none"> • Textbook/ Supplements • Transparencies • PowerPoint • Lab Manual Diagrams • Periodic Table • Calculators • Handouts Lab Equipment • Model Kits • Microscopes • CBL- Vernier Probes • Measuring Devices • Computer (classroom) • Computer (lab) • Excel • Preserved and Living Specimens • Chemicals • Videos • Testing Kits/materials • Internet • Magazines and Journals • Instructional CD's 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Homework • Lab write-ups • Midterms • Final • Independent Projects • Research Papers • Critical Thinking • Case Studies • Essays • Rubric • Peer Evaluation 	<ul style="list-style-type: none"> • Review and Re-teach • Small Group Instructions • Access to Learning Support Teachers • Adapted Lessons • Extended Time • Tutoring • Technology • Extended Time • Outside Speakers 	<ul style="list-style-type: none"> • Additional Reading • Science Competition (Envirothon) • Independent Projects • Field Trips • Science Clubs • Summer Assignments • Internships • Shadowing Programs

**WEST JEFFERSON HILLS SCHOOL DISTRICT
ENVIRONMENTAL SCIENCE CURRICULUM**

GRADE 12

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4.6 Ecosystems and their Interactions						
A. Explain the biotic and abiotic components of an ecosystem and their interaction. Analyze the interdependence of an ecosystem.	<ul style="list-style-type: none"> • Identify the major biomes and explain their similarities and differences. • Compare and contrast the interactions of biotic and abiotic components in an ecosystem. • Analyze the effects of abiotic factors on specific ecosystems. • Describe how the availability of resources affects organisms in an ecosystem. • Explain energy flow in a food chain through an energy pyramid. • Evaluate the efficiency of energy flow in a food chain. • Explain the concept of carrying capacity in an ecosystem. • Explain trophic levels. 	<ul style="list-style-type: none"> • Direct Instruction • Partner Work • Group Work • Lab Work • Study Skills • Demonstrations • Movie Clips • Graphing/ Analysis • Computer Projects • Cooperative Learning • Guided/ Paired/ independent Reading • Brainstorming • Class discussions • Note guides • Dissections 	<ul style="list-style-type: none"> • Textbook/ Supplements • Transparencies • PowerPoint • Lab Manual Diagrams • Periodic Table • Calculators • Handouts Lab Equipment • Model Kits • Microscopes • CBL-Vernier Probes • Measuring Devices • Computer (classroom) • Computer (lab) • Excel • Preserved and Living Specimens • Chemicals • Videos • Testing Kits/materials • Internet • Magazines and Journals • Instructional CD's 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Homework • Lab write-ups • Midterms • Final • Independent Projects • Research Papers • Critical Thinking • Case Studies • Essays • Rubric • Peer Evaluation 	<ul style="list-style-type: none"> • Review and Re-teach • Small Group Instructions • Access to Learning Support Teachers • Adapted Lessons • Extended Time • Tutoring • Technology • Extended Time • Outside Speakers 	<ul style="list-style-type: none"> • Additional Reading • Science Competition (Envirothon) • Independent Projects • Field Trips • Science Clubs • Summer Assignments • Internships • Shadowing Programs

**WEST JEFFERSON HILLS SCHOOL DISTRICT
ENVIRONMENTAL SCIENCE CURRICULUM**

GRADE 12

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<p>4.6 Ecosystems and their Interactions</p>						
	<ul style="list-style-type: none"> • Identify a specific environmental impact and predict what change may take place to affect homeostasis. • Examine and explain how organisms modify their environments to sustain their needs. • Assess the effects of latitude and altitude on biomes. • Analyze the relationships among components of an ecosystem. • Evaluate the efficiency of energy flow within an ecosystem. • Explain limiting factors and their impact on carrying capacity. • Understand how biological diversity impacts the stability of an ecosystem. • Analyze the positive or negative impacts of outside influences on an ecosystem. 	<ul style="list-style-type: none"> • Direct Instruction • Partner Work • Group Work • Lab Work • Study Skills • Demonstrations • Movie Clips • Graphing/ Analysis • Computer Projects • Cooperative Learning • Guided/ Paired/ independent Reading • Brainstorming • Class discussions • Note guides • Dissections 	<ul style="list-style-type: none"> • Textbook/ Supplements • Transparencies • PowerPoint • Lab Manual Diagrams • Periodic Table • Calculators • Handouts Lab Equipment • Model Kits • Microscopes • CBL-Vernier Probes • Measuring Devices • Computer (classroom) • Computer (lab) • Excel • Preserved and Living Specimens • Chemicals • Videos • Testing Kits/materials • Internet • Magazines and Journals • Instructional CD's 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Homework • Lab write-ups • Midterms • Final • Independent • Projects • Research Papers • Critical Thinking • Case Studies • Essays • Rubric • Peer Evaluation 	<ul style="list-style-type: none"> • Review and Re-teach • Small Group Instructions • Access to Learning Support Teachers • Adapted Lessons • Extended Time • Tutoring • Technology • Extended Time • Outside Speakers 	<ul style="list-style-type: none"> • Additional Reading • Science Competition (Envirothon) • Independent Projects • Field Trips • Science Clubs • Summer Assignments • Internships • Shadowing Programs

**WEST JEFFERSON HILLS SCHOOL DISTRICT
ENVIRONMENTAL SCIENCE CURRICULUM**

GRADE 12

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<p>4.6 Ecosystems and their Interactions</p>						
	<ul style="list-style-type: none"> • Analyze how different land use practices can affect the quality of soils. • Interpret possible causes of population fluctuations. • Explain how erosion and sedimentation have changed the quality of soil related habitats. 	<ul style="list-style-type: none"> • Direct Instruction • Partner Work • Group Work • Lab Work • Study Skills • Demonstrations • Movie Clips • Graphing/ Analysis • Computer Projects • Cooperative Learning • Guided/ Paired/ independent Reading • Brainstorming • Class discussions • Note guides • Dissections 	<ul style="list-style-type: none"> • Textbook/ Supplements • Transparencies • PowerPoint • Lab Manual Diagrams • Periodic Table • Calculators • Handouts Lab Equipment • Model Kits • Microscopes • CBL-Vernier Probes • Measuring Devices • Computer (classroom) • Computer (lab) • Excel • Preserved and Living Specimens • Chemicals • Videos • Testing Kits/materials • Internet • Magazines and Journals • Instructional CD's 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Homework • Lab write-ups • Midterms • Final • Independent Projects • Research Papers • Critical Thinking • Case Studies • Essays • Rubric • Peer Evaluation 	<ul style="list-style-type: none"> • Review and Re-teach • Small Group Instructions • Access to Learning Support Teachers • Adapted Lessons • Extended Time • Tutoring • Technology • Extended Time • Outside Speakers 	<ul style="list-style-type: none"> • Additional Reading • Science Competition (Envirothon) • Independent Projects • Field Trips • Science Clubs • Summer Assignments • Internships • Shadowing Programs

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4.6 Ecosystems and their Interactions						
B. Explain how cycles affect the balance in an ecosystem. Analyze the impact of cycles on the ecosystem.	<ul style="list-style-type: none"> • Describe an element cycle and its role in an ecosystem. • Explain the consequences of interrupting natural cycles. • Evaluate the materials necessary for natural cycles. • Explain the processes involved in the natural cycles. 	<ul style="list-style-type: none"> • Direct Instruction • Partner Work • Group Work • Lab Work • Study Skills • Demonstrations • Movie Clips • Graphing/ Analysis • Computer Projects • Cooperative Learning • Guided/ Paired/ independent Reading • Brainstorming • Class discussions • Note guides • Dissections 	<ul style="list-style-type: none"> • Textbook/ Supplements • Transparencies • PowerPoint • Lab Manual Diagrams • Periodic Table • Calculators • Handouts Lab Equipment • Model Kits • Microscopes • CBL-Vernier Probes • Measuring Devices • Computer (classroom) • Computer (lab) • Excel • Preserved and Living Specimens • Chemicals • Videos • Testing Kits/materials • Internet • Magazines and Journals • Instructional CD's 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Homework • Lab write-ups • Midterms • Final • Independent Projects • Research Papers • Critical Thinking • Case Studies • Essays • Rubric • Peer Evaluation 	<ul style="list-style-type: none"> • Review and Re-teach • Small Group Instructions • Access to Learning Support Teachers • Adapted Lessons • Extended Time • Tutoring • Technology • Extended Time • Outside Speakers 	<ul style="list-style-type: none"> • Additional Reading • Science Competition (Envirothon) • Independent Projects • Field Trips • Science Clubs • Summer Assignments • Internships • Shadowing Programs

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<p>4.6 Ecosystems and their Interactions</p>						
<p>C. Analyze how ecosystems change over time. Analyze how human action and natural changes affect the balance within an ecosystem.</p>	<ul style="list-style-type: none"> • Identify and explain the succession stages in an ecosystem. • Identify causes of succession. • Analyze consequences of interrupting natural cycles. • Analyze the effects of substances that move through natural cycles. • Analyze the effects of natural occurrences and their effects on ecosystems. • Analyze effects of human action on an ecosystem. • Compare the stages of succession and how they influence the cycles existing in an ecosystem. 	<ul style="list-style-type: none"> • Direct Instruction • Partner Work • Group Work • Lab Work • Study Skills • Demonstrations • Movie Clips • Graphing/ Analysis • Computer Projects • Cooperative Learning • Guided/ Paired/ independent Reading • Brainstorming • Class discussions • Note guides • Dissections 	<ul style="list-style-type: none"> • Textbook/ Supplements • Transparencies • PowerPoint • Lab Manual Diagrams • Periodic Table • Calculators • Handouts Lab Equipment • Model Kits • Microscopes • CBL- Vernier Probes • Measuring Devices • Computer (classroom) • Computer (lab) • Excel • Preserved and Living Specimens • Chemicals • Videos • Testing Kits/materials • Internet • Magazines and Journals • Instructional CD's 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Homework • Lab write-ups • Midterms • Final • Independent Projects • Research Papers • Critical Thinking • Case Studies • Essays • Rubric • Peer Evaluation 	<ul style="list-style-type: none"> • Review and Re-teach • Small Group Instructions • Access to Learning Support Teachers • Adapted Lessons • Extended Time • Tutoring • Technology • Extended Time • Outside Speakers 	<ul style="list-style-type: none"> • Additional Reading • Science Competition (Envirothon) • Independent Projects • Field Trips • Science Clubs • Summer Assignments • Internships • Shadowing Programs

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ENVIRONMENTAL SCIENCE CURRICULUM**

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4.7 Threatened, Endangered and Extinct Species						
A. Analyze biological diversity as it relates to the stability of an ecosystem.	<ul style="list-style-type: none"> • Examine and explain what happens to an ecosystem as biological diversity changes. • Explain the relationship between species' loss and bio-diversity. • Examine and explain how a specialized interaction between two species may affect the survival of both species. 	<ul style="list-style-type: none"> • Direct Instruction • Partner Work • Group Work • Lab Work • Study Skills • Demonstrations • Movie Clips • Graphing/ Analysis • Computer Projects • Cooperative Learning • Guided/ Paired/ independent Reading • Brainstorming • Class discussions • Note guides • Dissections 	<ul style="list-style-type: none"> • Textbook/ Supplements • Transparencies • PowerPoint • Lab Manual Diagrams • Periodic Table • Calculators • Handouts Lab Equipment • Model Kits • Microscopes • CBL- Vernier Probes • Measuring Devices • Computer (classroom) • Computer (lab) • Excel • Preserved and Living Specimens • Chemicals • Videos • Testing Kits/materials • Internet • Magazines and Journals • Instructional CD's 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Homework • Lab write-ups • Midterms • Final • Independent Projects • Research Papers • Critical Thinking • Case Studies • Essays • Rubric • Peer Evaluation 	<ul style="list-style-type: none"> • Review and Re-teach • Small Group Instructions • Access to Learning Support Teachers • Adapted Lessons • Extended Time • Tutoring • Technology • Extended Time • Outside Speakers 	<ul style="list-style-type: none"> • Additional Reading • Science Competition (Envirothon) • Independent Projects • Field Trips • Science Clubs • Summer Assignments • Internships • Shadowing Programs

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ENVIRONMENTAL SCIENCE CURRICULUM**

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4.7 Threatened, Endangered and Extinct Species						
B. Examine the effects of extinction, both natural and human caused, on the environment.	<ul style="list-style-type: none"> • Predict how human or natural action can produce changes to organisms which cannot adapt. • Identify species that became extinct through natural causes and explain how that occurred. • Identify a species that became extinct due to human actions and explain what occurred. 	<ul style="list-style-type: none"> • Direct Instruction • Partner Work • Group Work • Lab Work • Study Skills • Demonstrations • Movie Clips • Graphing/ Analysis • Computer Projects • Cooperative Learning • Guided/ Paired/ independent Reading • Brainstorming • Class discussions • Note guides • Dissections 	<ul style="list-style-type: none"> • Textbook/ Supplements • Transparencies • PowerPoint • Lab Manual Diagrams • Periodic Table • Calculators • Handouts Lab Equipment • Model Kits • Microscopes • CBL- Vernier Probes • Measuring Devices • Computer (classroom) • Computer (lab) • Excel • Preserved and Living Specimens • Chemicals • Videos • Testing Kits/materials • Internet • Magazines and Journals • Instructional CD's 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Homework • Lab write-ups • Midterms • Final • Independent Projects • Research Papers • Critical Thinking • Case Studies • Essays • Rubric • Peer Evaluation 	<ul style="list-style-type: none"> • Review and Re-teach • Small Group Instructions • Access to Learning Support Teachers • Adapted Lessons • Extended Time • Tutoring • Technology • Extended Time • Outside Speakers 	<ul style="list-style-type: none"> • Additional Reading • Science Competition (Envirothon) • Independent Projects • Field Trips • Science Clubs • Summer Assignments • Internships • Shadowing Programs

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ENVIRONMENTAL SCIENCE CURRICULUM**

GRADE 12

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<p>4.7 Threatened, Endangered and Extinct Species</p>						
<p>C. Analyze the effects of threatened endangered or extinct species on human and natural systems.</p>	<ul style="list-style-type: none"> • Identify and explain how species' increase, decline, or elimination affects the ecosystem and/or human, social, cultural, and economic structures. • Explain why natural populations do not remain constant. • Analyze management strategies regarding threatened or endangered species. • Identify laws, agreements or treaties at national or international levels regarding threatened or endangered species. • Analyze the role of zoos and wildlife preserves on species that have been identified as threatened or endangered. • Examine the influence of wildlife management in preserving different species in Pennsylvania (e.g., bobcat, elk, bald eagle). 	<ul style="list-style-type: none"> • Direct Instruction • Partner Work • Group Work • Lab Work • Study Skills • Demonstrations • Movie Clips • Graphing/ Analysis • Computer Projects • Cooperative Learning • Guided/ Paired/ independent Reading • Brainstorming • Class discussions • Note guides • Dissections 	<ul style="list-style-type: none"> • Textbook/ Supplements • Transparencies • PowerPoint • Lab Manual Diagrams • Periodic Table • Calculators • Handouts Lab Equipment • Model Kits • Microscopes • CBL- Vernier Probes • Measuring Devices • Computer (classroom) • Computer (lab) • Excel • Preserved and Living Specimens • Chemicals • Videos • Testing Kits/materials • Internet • Magazines and Journals • Instructional CD's 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Homework • Lab write-ups • Midterms • Final • Independent Projects • Research Papers • Critical Thinking • Case Studies • Essays • Rubric • Peer Evaluation 	<ul style="list-style-type: none"> • Review and Re-teach • Small Group Instructions • Access to Learning Support Teachers • Adapted Lessons • Extended Time • Tutoring • Technology • Extended Time • Outside Speakers 	<ul style="list-style-type: none"> • Additional Reading • Science Competition (Envirothon) • Independent Projects • Field Trips • Science Clubs • Summer Assignments • Internships • Shadowing Programs

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ENVIRONMENTAL SCIENCE CURRICULUM**

GRADE 12

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<p>4.8 Humans and the Environment</p>						
<p>A. Explain how technology has influenced the sustainability of natural resources over time.</p>	<ul style="list-style-type: none"> • Analyze the effect of natural resource conservation on a product over time (e.g., automobile manufacturing, aluminum can recycling, paper products). 	<ul style="list-style-type: none"> • Direct Instruction • Partner Work • Group Work • Lab Work • Study Skills • Demonstrations • Movie Clips • Graphing/ Analysis • Computer Projects • Cooperative Learning • Guided/ Paired/ independent Reading • Brainstorming • Class discussions • Note guides • Dissections 	<ul style="list-style-type: none"> • Textbook/ Supplements • Transparencies • PowerPoint • Lab Manual Diagrams • Periodic Table • Calculators • Handouts Lab Equipment • Model Kits • Microscopes • CBL-Vernier Probes • Measuring Devices • Computer (classroom) • Computer (lab) • Excel • Preserved and Living Specimens • Chemicals • Videos • Testing Kits/materials • Internet • Magazines and Journals • Instructional CD's 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Homework • Lab write-ups • Midterms • Final • Independent Projects • Research Papers • Critical Thinking • Case Studies • Essays • Rubric • Peer Evaluation 	<ul style="list-style-type: none"> • Review and Re-teach • Small Group Instructions • Access to Learning Support Teachers • Adapted Lessons • Extended Time • Tutoring • Technology • Extended Time • Outside Speakers 	<ul style="list-style-type: none"> • Additional Reading • Science Competition (Envirothon) • Independent Projects • Field Trips • Science Clubs • Summer Assignments • Internships • Shadowing Programs

**WEST JEFFERSON HILLS SCHOOL DISTRICT
ENVIRONMENTAL SCIENCE CURRICULUM**

GRADE 12

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 and the Environment						
B. Analyze technology's role on natural resource sustainability.	<ul style="list-style-type: none"> • Explain how technology has decreased the use of raw natural resources. • Explain how technology has impacted the efficiency of the use of natural resources. • Analyze the role of technology in the reduction of pollution. 	<ul style="list-style-type: none"> • Direct Instruction • Partner Work • Group Work • Lab Work • Study Skills • Demonstrations • Movie Clips • Graphing/ Analysis • Computer Projects • Cooperative Learning • Guided/ Paired/ independent Reading • Brainstorming • Class discussions • Note guides • Dissections 	<ul style="list-style-type: none"> • Textbook/ Supplements • Transparencies • PowerPoint • Lab Manual Diagrams • Periodic Table • Calculators • Handouts Lab Equipment • Model Kits • Microscopes • CBL- Vernier Probes • Measuring Devices • Computer (classroom) • Computer (lab) • Excel • Preserved and Living Specimens • Chemicals • Videos • Testing Kits/materials • Internet • Magazines and Journals • Instructional CD's 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Homework • Lab write-ups • Midterms • Final • Independent Projects • Research Papers • Critical Thinking • Case Studies • Essays • Rubric • Peer Evaluation 	<ul style="list-style-type: none"> • Review and Re-teach • Small Group Instructions • Access to Learning Support Teachers • Adapted Lessons • Extended Time • Tutoring • Technology • Extended Time • Outside Speakers 	<ul style="list-style-type: none"> • Additional Reading • Science Competition (Envirothon) • Independent Projects • Field Trips • Science Clubs • Summer Assignments • Internships • Shadowing Programs

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4.8 Humans and the Environment						
C. Analyze how human activities may cause changes in an ecosystem.	<ul style="list-style-type: none"> • Analyze and evaluate changes in the environment that are the result of human activities. • Compare and contrast the environmental effects of different industrial strategies 	<ul style="list-style-type: none"> • Direct Instruction • Partner Work • Group Work • Lab Work • Study Skills • Demonstrations • Movie Clips • Graphing/ Analysis • Computer Projects • Cooperative Learning • Guided/ Paired/ independent Reading • Brainstorming • Class discussions • Note guides • Dissections 	<ul style="list-style-type: none"> • Textbook/ Supplements • Transparencies • PowerPoint • Lab Manual Diagrams • Periodic Table • Calculators • Handouts Lab Equipment • Model Kits • Microscopes • CBL- Vernier Probes • Measuring Devices • Computer (classroom) • Computer (lab) • Excel • Preserved and Living Specimens • Chemicals • Videos • Testing Kits/materials • Internet • Magazines and Journals • Instructional CD's 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Homework • Lab write-ups • Midterms • Final • Independent Projects • Research Papers • Critical Thinking • Case Studies • Essays • Rubric • Peer Evaluation 	<ul style="list-style-type: none"> • Review and Re-teach • Small Group Instructions • Access to Learning Support Teachers • Adapted Lessons • Extended Time • Tutoring • Technology • Extended Time • Outside Speakers 	<ul style="list-style-type: none"> • Additional Reading • Science Competition (Envirothon) • Independent Projects • Field Trips • Science Clubs • Summer Assignments • Internships • Shadowing Programs

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4.8 Humans and the Environment						
D. Analyze the international implications of environmental occurrences.	<ul style="list-style-type: none"> • Identify natural occurrences that have international impact (e.g., El Nino, volcano eruptions, earthquakes). • Analyze environmental issues and their international implications. • Analyze the effectiveness of International treaties 	<ul style="list-style-type: none"> • Direct Instruction • Partner Work • Group Work • Lab Work • Study Skills • Demonstrations • Movie Clips • Graphing/ Analysis • Computer Projects • Cooperative Learning • Guided/ Paired/ independent Reading • Brainstorming • Class discussions • Note guides • Dissections 	<ul style="list-style-type: none"> • Textbook/ Supplements • Transparencies • PowerPoint • Lab Manual Diagrams • Periodic Table • Calculators • Handouts Lab Equipment • Model Kits • Microscopes • CBL-Vernier Probes • Measuring Devices • Computer (classroom) • Computer (lab) • Excel • Preserved and Living Specimens • Chemicals • Videos • Testing Kits/materials • Internet • Magazines and Journals • Instructional CD's 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Homework • Lab write-ups • Midterms • Final • Independent Projects • Research Papers • Critical Thinking • Case Studies • Essays • Rubric • Peer Evaluation 	<ul style="list-style-type: none"> • Review and Re-teach • Small Group Instructions • Access to Learning Support Teachers • Adapted Lessons • Extended Time • Tutoring • Technology • Extended Time • Outside Speakers 	<ul style="list-style-type: none"> • Additional Reading • Science Competition (Envirothon) • Independent Projects • Field Trips • Science Clubs • Summer Assignments • Internships • Shadowing Programs

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<p style="text-align: center;">PA Academic Standards Student must be able to do</p>	<p style="text-align: center;">Objective Content or process student will be able to know and do</p>	<p style="text-align: center;">Instructional Methods</p>	<p style="text-align: center;">Materials/ Resources Textbooks, trade books, workbooks, software, hardware, etc.</p>	<p style="text-align: center;">*Assessment Procedures *Additional adaptations, modifications, accommodations, and enrichment/ acceleration will be provided per IEP</p>	<p style="text-align: center;">*Additional Learning Opportunities for students who do not meet basic standards *Additional adaptations, modifications, and accommodations will be provided per IEP</p>	<p style="text-align: center;">*Extended Learning Opportunities for students who can go beyond the basic standards. *Additional enrichment/acceleration will be provided per IEP</p>
4.9 Environmental Laws and Regulations						
<p>A. Explain why environmental laws and regulations are developed and enacted.</p> <p>Analyze environmental laws and regulations as they relate to environmental issues.</p>	<ul style="list-style-type: none"> • Explain the positive and negative impacts associated with passing environmental laws and regulations. • Understand conflicting rights of property owners and environmental laws and regulations. • Analyze the roles that local, state, and federal governments play in the development and enforcement of environmental laws. • Identify local and state environmental regulations and their impact on environmental health. 	<ul style="list-style-type: none"> • Direct Instruction • Partner Work • Group Work • Lab Work • Study Skills • Demonstrations • Movie Clips • Graphing/ Analysis • Computer Projects • Cooperative Learning • Guided/ Paired/ independent Reading • Brainstorming • Class discussions • Note guides • Dissections 	<ul style="list-style-type: none"> • Textbook/ Supplements • Transparencies • PowerPoint • Lab Manual Diagrams • Periodic Table • Calculators • Handouts Lab Equipment • Model Kits • Microscopes • CBL-Vernier Probes • Measuring Devices • Computer (classroom) • Computer (lab) • Excel • Preserved and Living Specimens • Chemicals • Videos • Testing Kits/materials • Internet • Magazines and Journals • Instructional CD's 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Homework • Lab write-ups • Midterms • Final • Independent Projects • Research Papers • Critical Thinking • Case Studies • Essays • Rubric • Peer Evaluation 	<ul style="list-style-type: none"> • Review and Re-teach • Small Group Instructions • Access to Learning Support Teachers • Adapted Lessons • Extended Time • Tutoring • Technology • Extended Time • Outside Speakers 	<ul style="list-style-type: none"> • Additional Reading • Science Competition (Envirothon) • Independent Projects • Field Trips • Science Clubs • Summer Assignments • Internships • Shadowing Programs

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4.9 Environmental Laws and Regulations						
A. Explain why environmental laws and regulations are developed and enacted. Analyze environmental laws and regulations as they relate to environmental issues.	<ul style="list-style-type: none"> • Explain the positive and negative impacts of the Endangered Species Act. • Analyze and explain how issues lead to environmental law or regulation (e.g., underground storage tanks, regulation of water discharges, hazardous, solid, and liquid industrial waste, endangered species). • Compare and contrast environmental laws and regulations that may have a positive or negative impact on the environment and the economy. • Research and describe the effects of an environmental law or regulation and how it has impacted the environment. 	<ul style="list-style-type: none"> • Direct Instruction • Partner Work • Group Work • Lab Work • Study Skills • Demonstrations • Movie Clips • Graphing/ Analysis • Computer Projects • Cooperative Learning • Guided/Paired/ independent Reading • Brainstorming • Class discussions • Note guides • Dissections 	<ul style="list-style-type: none"> • Textbook/ Supplements • Transparencies • PowerPoint • Lab Manual Diagrams • Periodic Table • Calculators • Handouts Lab Equipment • Model Kits • Microscopes • CBL-Vernier Probes • Measuring Devices • Computer (classroom) • Computer (lab) • Excel • Preserved and Living Specimens • Chemicals • Videos • Testing Kits/materials • Internet • Magazines and Journals • Instructional CD's 	<ul style="list-style-type: none"> • Teacher Observation • Tests • Quizzes • Problem Solving • In-Class Work • Homework • Lab write-ups • Midterms • Final • Independent Projects • Research Papers • Critical Thinking • Case Studies • Essays • Rubric • Peer Evaluation 	<ul style="list-style-type: none"> • Review and Re-teach • Small Group Instructions • Access to Learning Support Teachers • Adapted Lessons • Extended Time • Tutoring • Technology • Extended Time • Outside Speakers 	<ul style="list-style-type: none"> • Additional Reading • Science Competition (Envirothon) • Independent Projects • Field Trips • Science Clubs • Summer Assignments • Internships • Shadowing Programs