Pine Hill Public Schools Curriculum			
Content Area:	**Science**		
Course Title/ Grade Level:	CP Biology / Grade 10		
Unit 1:	Scientific Process	Duration:	1 week
Unit 2:	Scientific Process	Duration:	1 week
Unit 3:	Characteristics of Life	Duration:	1 week
Unit 4:	Inorganic Chemistry	Duration:	1weeks
Unit 5:	Organic Chemistry	Duration:	1-2 weeks
Unit 6:	Cellular Structure	Duration:	1-2 weeks
Unit 7:	Cell Membrane and transport	Duration:	2 weeks
Unit 8:	Photosynthesis and Respiration	Duration:	12 days
Unit 9:	Cell Cycle	Duration:	1 weeks
Unit 10:	Meiosis and Heredity	Duration:	18 days
Unit 11:	DNA, RNA and Protein Synthesis	Duration:	1-2 weeks
Unit 12:	Biotechnology	Duration:	2-3 weeks
Unit 13:	Evolution	Duration:	15 days
Unit 14:	Ecology and Human Impacts on the Environment	Duration:	18 days
Unit 15:	NJBCT Review	Duration:	1 week
Date Created or Revised:	2011		
BOE Approval Date:	8/28/12		

Pine Hill Public Schools Science Curriculum		
Unit Title: Scientific Process		**Unit # 2**
Course or Grade Level: CP Biology	**Length of Time: 1 week**	
Pacing		
Essential Questions	-How can terms be defined using root words? -Why is the scientific method important and what are the steps? -What is the importance of controls and a variable in an experiment?	
Content	-Root Words -Steps of the scientific method -Controls vs. Variables -Data collection and organization methods - Inquiring, observing, and discovering as a way to build science knowledge from the known to the unknown	
Skills	-Determine the meaning of a term based on its root words - Design and perform experiments using the scientific method	
Math Skills/ Science Processes	-Use of graphs - Creation and usage of data tables - Use of Graphing Calculators -Use of graphs and charts	
Assessments	-Determine the meaning of a term based on its root words - Design and perform experiments using the scientific method -homework/class work -quiz -test -Inquiry lab on scientific method	
Interventions / differentiated instruction	-Provide advanced notice of tests -Include hands-on activities -Provide material at student's level of functioning -Use multi sensory approach	
Inter-disciplinary Connections	- Mathematical connections - Connection to English - Science and society - Scientific discoveries and the link to Ethics	
Lesson resources / Activities	- Hands-on activities -Laboratories related to the subject matter -Word processing systems -Computer access	
2009 NJCCCS		
Standard: 5.1		
Strand(s): D		

Content Statement(s):							
Demonstrate how to use scientific tools and instruments and knowledge of how to handle animals with respect for their safety and welfare.							
21st Century Themes							
	Global Awareness		Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy
21st Century Skills							
	Creativity and Innovation		Critical Thinking and Problem Solving		Communication and Collaboration		Information Literacy
	Media Literacy		ICT Literacy		Life and Career Skills		

Pine Hill Public Schools Science Curriculum		
Unit Title: Characteristics of Life		**Unit # 3**
Course or Grade Level: CP Biology	**Length of Time: 1 week**	
Pacing		
Essential Questions	-What are the essential characteristics that all living organisms share? -How does structure relate to function in living systems from the organismal to the cellular level?	
Content	- Overview of essential life processes - Characteristics of Life - Compare abiotic and biotic factors - Needs of an organism -Levels of organization from biosphere to cell	
Skills	- Identify the characteristics of life -Describe the needs of an organism -List levels of organization and provide an example	
Math Skills/ Science Processes	-Use of graphs - Creation and usage of data tables - Use of Graphing Calculators -Use of graphs and charts	
Assessments	homework/class work -quiz -test -Lab on characteristics of life (Pill Bug, Mythbusters Lab)	
Interventions / differentiated instruction	-Provide advanced notice of tests -Include hands-on activities -Provide material at student's level of functioning -Use multi sensory approach	
Inter-disciplinary Connections	- Mathematical connections - Connection to English - Science and society - Scientific discoveries and the link to Ethics	
Lesson resources / Activities	- Hands-on activities -Laboratories related to the subject matter -Word processing systems -Computer access	
2009 NJCCCS		
Standard: 5.1		
Strand(s): A,B,C,D		
Content Statement(s):	**CPI # / CPI(s):**	

21st Century Themes							
	Global Awareness		Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy
21st Century Skills							
	Creativity and Innovation		Critical Thinking and Problem Solving		Communication and Collaboration		Information Literacy
	Media Literacy		ICT Literacy		Life and Career Skills		

Pine Hill Public Schools Science Curriculum		
Unit Title: Inorganic Chemistry		**Unit # 4**
Course or Grade Level: CP Biology	**Length of Time: 1 week**	
Pacing		
Essential Questions	How is water important to life? -How does structure relate to function in living systems from the organismal to the cellular level?	
Content	-Water - Isotopes - Lewis structures (ionic/covalent bonding) - pH and buffers	
Skills	- Review ionic, covalent, and hydrogen bonding - Use Lewis structures to show the difference between ionic and covalent bonding - Define isotopes and explain how they are used in biological research and medicine - Differentiate between acids and bases -Describe the properties of water and its importance to living things	
Math Skills/ Science Processes	-Use of graphs - Creation and usage of data tables - Use of Graphing Calculators -Use of graphs and charts	
Assessments	-homework/class work -quiz -test -Labs on using pH (biological buffers, antacids), building molecular models	
Interventions / differentiated instruction	-Provide advanced notice of tests -Include hands-on activities -Provide material at student's level of functioning -Use multi sensory approach	
Inter-disciplinary Connections	- Mathematical connections - Connection to English - Science and society - Scientific discoveries and the link to Ethics	
Lesson resources / Activities	- Hands-on activities -Laboratories related to the subject matter -Word processing systems -Computer access	
2009 NJCCCS		
Standard: 5.3		
Strand(s): A. Organization and Development		
Analyze the interrelationships and interdependencies among	5.3.12.C.1	

different organisms and explain how these relationships contribute to the stability of the ecosystem.							
21st Century Themes							
	Global Awareness		Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy
21st Century Skills							
	Creativity and Innovation		Critical Thinking and Problem Solving		Communication and Collaboration		Information Literacy
	Media Literacy		ICT Literacy		Life and Career Skills		

Pine Hill Public Schools Science Curriculum		
Unit Title: Organic Chemistry		**Unit # 5**
Course or Grade Level: CP Biology	**Length of Time: 12 Days**	
Pacing		
Essential Questions	-How does structure relate to function in living systems from the cellular level to the level of the organism as a whole?	
Content	- Importance of specific elements (carbon, oxygen, hydrogen, nitrogen, phosphorus, sulfur) - Dehydrations synthesis and hydrolysis - Macromolecules (structure and function) - Enzymes (function)	
Skills	- Describe the structure and function of the four major types of organic molecules -Describe how polymers are built and broken down -Describe the unique properties of enzymes -Model (using physical or digital tools) the four major categories of organic molecules -Conduct experiments to demonstrate the impact of various conditions on enzymes	
Math Skills/ Science Processes	-Use of graphs - Creation and usage of data tables - Use of Graphing Calculators -Use of graphs and charts	
Assessments	- -homework/class work -quiz -test -Labs: Qualitative Identification of macromolecules, miscibility lab	
Interventions / differentiated instruction	-Provide advanced notice of tests -Include hands-on activities -Provide material at student's level of functioning -Use multi sensory approach	
Inter-disciplinary Connections	- Mathematical connections - Connection to English - Science and society - Scientific discoveries and the link to Ethics	
Lesson resources / Activities	- Hands-on activities -Laboratories related to the subject matter -Word processing systems -Computer access	
2009 NJCCCS		
Standard:		
Strand(s):		
Content Statement(s):	**CPI # / CPI(s):**	

21st Century Themes							
	Global Awareness		Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy
21st Century Skills							
	Creativity and Innovation		Critical Thinking and Problem Solving		Communication and Collaboration		Information Literacy
	Media Literacy		ICT Literacy		Life and Career Skills		

Pine Hill Public Schools Science Curriculum		
Unit Title: Cellular Structure		**Unit # 6**
Course or Grade Level: CP Biology	**Length of Time: 1 week**	
Pacing		
Essential Questions	What is the basic unit of structure and function of living things?	
Content	-Cell theory -Parts of the microscope -Types of microscopes and their uses -Plant vs Animal Cells -Prokaryotic vs Eukaryotic cells	
Skills	-Proficient in using microscope, locating specimens, and creating a wet mount -Observe and identify types of cells	
Math Skills/ Science Processes	-Use of graphs - Creation and usage of data tables - Use of Graphing Calculators -Use of graphs and charts	
Assessments	-homework/class work -quiz -test -labs on the microscope, investigating cell types	
Interventions / differentiated instruction	-Provide advanced notice of tests -Include hands-on activities -Provide material at student's level of functioning -Use multi sensory approach	
Inter-disciplinary Connections	- Mathematical connections - Connection to English - Science and society - Scientific discoveries and the link to Ethics	
Lesson resources / Activities	- Hands-on activities -Laboratories related to the subject matter -Word processing systems -Computer access	
2009 NJCCCS		
Standard: 5.3		
Strand(s): A. Organization and Development		
Content Statement(s):	**CPI # / CPI(s):**	

Predict a cells response in a given set of environmental conditions.							
21st Century Themes							
	Global Awareness		Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy
21st Century Skills							
	Creativity and Innovation		Critical Thinking and Problem Solving		Communication and Collaboration		Information Literacy
	Media Literacy		ICT Literacy		Life and Career Skills		

Pine Hill Public Schools Science Curriculum		
Unit Title: Cell Membrane and transport		**Unit #7**
Course or Grade Level: CP Biology	**Length of Time: 10 days**	
Pacing		
Essential Questions	-How are substances transported into and out of the cell to maintain homeostasis?	
Content	- Describe the major structure and functions of the cell membrane - Explain how the structure of the plasma membrane makes it semi-permeable - Describe and distinguish between the processes of diffusion, facilitated diffusion, osmosis, and active transport - Compare and contrast hypertonic, hypotonic, and isotonic solutions	
Skills	-Recognize that cell membranes are selectively permeable and maintain optimal internal conditions through transport -Predict a cell's response in a given set of environmental conditions -Conduct investigations and use results of measurements/observations to refine predictions and explanations	
Math Skills/ Science Processes	-Use of graphs - Creation and usage of data tables - Use of Graphing Calculators -Use of graphs and charts	
Assessments	-Homework/Class work -quiz -test -Labs investigation osmosis and diffusion Benchmark #1	
Interventions / differentiated instruction	-Provide advanced notice of tests -Include hands-on activities -Provide material at student's level of functioning -Use multi sensory approach	
Inter-disciplinary Connections	- Mathematical connections - Connection to English - Science and society - Scientific discoveries and the link to Ethics	
Lesson resources / Activities	- Hands-on activities -Laboratories related to the subject matter -Word processing systems -Computer access	
2009 NJCCCS		
Standard:		
Strand(s):		

Content Statement(s):								**CPI # / CPI(s):**
21st Century Themes								
	Global Awareness		Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy	
21st Century Skills								
	Creativity and Innovation		Critical Thinking and Problem Solving		Communication and Collaboration		Information Literacy	
	Media Literacy		ICT Literacy		Life and Career Skills			

Pine Hill Public Schools Science Curriculum		
Unit Title: Photosynthesis and Respiration		**Unit # 8**
Course or Grade Level: CP Biology	**Length of Time: 12 days**	
Pacing		
Essential Questions	How do cells obtain and use energy? How are matter and energy transformed and transferred in living things?	
Content	-Original source of energy for all living things is the sun - Photosynthesis and cellular respiration are dependent processes -Aerobic vs. Anaerobic -Recognize the equations for cell respiration and photosynthesis	
Skills	-Describe the reactants and products of photosynthesis and cellular respiration -Link energy from the sun to the energy needs of organisms -Differentiate between aerobic and anaerobic processes -Compare and contrast the processes of cellular respiration and photosynthesis	
Math Skills/ Science Processes	-Use of graphs - Creation and usage of data tables - Use of Graphing Calculators -Use of graphs and charts	
Assessments	--Homework/Class work -quiz -test -Cancer activity	
Interventions / differentiated instruction	-Provide advanced notice of tests -Include hands-on activities -Provide material at student's level of functioning -Use multi sensory approach	
Inter-disciplinary Connections	- Mathematical connections - Connection to English - Science and society - Scientific discoveries and the link to Ethics	
Lesson resources / Activities	- Hands-on activities -Laboratories related to the subject matter -Word processing systems -Computer access	
2009 NJCCCS		
Standard: 5.3		
Strand(s): B. Matter and Energy Transformations		
Content Statement(s):	**CPI # / CPI(s):**	
Investigate and describe the complementary relationship between photosynthesis and cellular respiration.		

21st Century Themes							
	Global Awareness		Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy
21st Century Skills							
	Creativity and Innovation		Critical Thinking and Problem Solving		Communication and Collaboration		Information Literacy
	Media Literacy		ICT Literacy		Life and Career Skills		

Pine Hill Public Schools Science Curriculum		
Unit Title: Cell Cycle		**Unit # 9**
Course or Grade Level: CP Biology	**Length of Time: 1 week**	
Pacing		
Essential Questions	- What the cell cycle? -How is cancer related to the cell cycle? -How do changes in DNA affect cells?	
Content	-Cell Cycle- interphase, mitosis (prophase, metaphase, anaphase, telophase) and cytokinesis -Cancer - Limits on cell size	
Skills	-Describe what occurs during the major steps of the cell cycle -State that mitosis produces genetically identical daughter cells -Describe the relationship between mitosis and cancer (breakdown in the cell cycle that leads to cancer)	
Math Skills/ Science Processes	-Use of graphs - Creation and usage of data tables - Use of Graphing Calculators -Use of graphs and charts	
Assessments	--Homework/Class work -quiz -test -Cancer activity	
Interventions / differentiated instruction	-Provide advanced notice of tests -Include hands-on activities -Provide material at student's level of functioning -Use multi sensory approach	
Inter-disciplinary Connections	- Mathematical connections - Connection to English - Science and society - Scientific discoveries and the link to Ethics	
Lesson resources / Activities	- Hands-on activities -Laboratories related to the subject matter -Word processing systems -Computer access	
2009 NJCCCS		
Strand(s): D. Heredity and Reproduction		
Content Statement(s):		
Demonstrate through modeling how the sorting and recombination of genes during sexual reproduction has an effect on variation in offspring (meiosis, fertilization).	**CPI # / CPI(s):**	

21st Century Themes							
	Global Awareness		Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy
21st Century Skills							
	Creativity and Innovation		Critical Thinking and Problem Solving		Communication and Collaboration		Information Literacy
	Media Literacy		ICT Literacy		Life and Career Skills		

Pine Hill Public Schools Science Curriculum		
Unit Title: Meiosis and Heredity		**Unit # 10**
Course or Grade Level: CP Biology	**Length of Time: 18 days**	
Pacing		
Essential Questions	-What are the major similarities and differences between mitosis and meiosis? -Why do organisms have their specific traits? -How is genetic information passed through generations?	
Content	-Meiosis produces gametes -Mendel's experiments - Punnett squares -Dominant/recessive, genotype/phenotype -Non-mendelian inheritance patterns - Pedigrees -Karyotypes	
Skills	-Compare and contrast meiosis and mitosis -Sorting and recombination of genes in sexual reproduction -Describe Mendel's experiments -Utilize punnett squares to predict genotypic and phenotypic outcomes (mono- and dihybrid crosses) -Interpret pedigrees -Utilize a test cross -Describe a genetic disorder -Identify non-mendelian inheritance patterns	
Math Skills/ Science Processes	-Use of graphs - Creation and usage of data tables - Use of Graphing Calculators -Use of graphs and charts	
Assessments	-Homework/Class work -Practice punnett squares -Quiz -Test -Labs/ activities: Predicting the outcome of mating, karyotyping lab, gene frequency lab. -Genetic disorders research activity -Performance Assessment – Tom Ato's New Crop	
Interventions / differentiated instruction	-Provide advanced notice of tests -Include hands-on activities -Provide material at student's level of functioning -Use multi sensory approach	
Inter-disciplinary Connections	- Mathematical connections - Connection to English - Science and society - Scientific discoveries and the link to Ethics	

Lesson resources / Activities	- Hands-on activities -Laboratories related to the subject matter -Word processing systems -Computer access

2009 NJCCCS	
Standard:5.3.12	
Strand(s):D.3	
Content Statement(s): Demonstrate through modeling how the sorting and recombination of genes during sexual reproduction has an effect on variation in offspring.	**CPI # / CPI(s):**

21st Century Themes							
	Global Awareness		Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy

21st Century Skills							
	Creativity and Innovation		Critical Thinking and Problem Solving		Communication and Collaboration		Information Literacy
	Media Literacy		ICT Literacy		Life and Career Skills		

Pine Hill Public Schools Science Curriculum		
Unit Title: DNA, RNA and Protein Synthesis		**Unit # 11**
Course or Grade Level: CP Biology	**Length of Time: 7days**	
Pacing		
Essential Questions	-How is genetic information passed through generations? -How does the information stored in DNA become translated into a protein? -How do changes in DNA affect cells?	
Content	-Historical events and experiments that led to the discovery of DNA -DNA carries instructions for characteristics of organisms and is a large polymer formed from 4 subunits (Adenine, Thymine, Guanine, and Cytosine) - Explain how the chemical and structural properties of DNA allow for genetic information to be encoded and replicated -Genes are sections of DNA that encode instructions for making proteins. -Mutations (point and frameshift) -Trace the flow of information from DNA to RNA to amino acid sequence	
Skills	-Build a model of DNA -Define replication -Trace the flow of information from DNA to proteins -Differentiate between types of mutations -Extract DNA from cells	
Math Skills/ Science Processes	-Use of graphs - Creation and usage of data tables - Use of Graphing Calculators -Use of graphs and charts	
Assessments	-Homework/Class work -quiz -test -Labs/activities: DNA structure and replication lab, DNA extraction, introduction to gel electrophoresis, DNA sequencing lab	
Interventions / differentiated instruction	-Provide advanced notice of tests -Include hands-on activities -Provide material at student's level of functioning -Use multi sensory approach	
Inter-disciplinary Connections	- Mathematical connections - Connection to English - Science and society - Scientific discoveries and the link to Ethics	
Lesson resources / Activities	- Hands-on activities -Laboratories related to the subject matter -Word processing systems -Computer access	

2009 NJCCCS	
Standard:5.3.12	
Strand(s):E.3	
Content Statement(s): Provide a scientific explanation for the history of life on Earth using scientific evidence.	**CPI # / CPI(s):**

21st Century Themes							
	Global Awareness		Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy
21st Century Skills							
	Creativity and Innovation		Critical Thinking and Problem Solving		Communication and Collaboration		Information Literacy
	Media Literacy		ICT Literacy		Life and Career Skills		

Pine Hill Public Schools Science Curriculum		
Unit Title: Biotechnology		**Unit # 12**
Course or Grade Level: CP Biology	**Length of Time: 14 days**	
Pacing		
Essential Questions	-What is biotechnology and how can it be used? -What are the risks and benefits of genetic engineering? -What are cloning and stem cells and why are these controversial topics?	
Content	-Forms of genetic engineering -Uses for the human genome project -Risks and benefits of genetic engineering -Transgenic organisms -Gel electrophoresis - Stem cells and cloning -Ethical Implications	
Skills	-List types of genetic engineering -List uses for the human genome project -Describe and debate risks and benefits of genetic engineering -List the steps of creating a transgenic organism -Model gel electrophoresis -Define stem cell and describe the potential uses and ethical implications -Describe the process of cloning and explain why cloning is controversial -Analyze current and potential impact of genome projects on human health or special with	
Math Skills/ Science Processes	-Use of graphs - Creation and usage of data tables - Use of Graphing Calculators -Use of graphs and charts	
Assessments	-Homework/ Class work -Quiz -Test -Online activities -GATACCA Movie	
Interventions / differentiated instruction	-Provide advanced notice of tests -Include hands-on activities -Provide material at student's level of functioning -Use multi sensory approach	
Inter-disciplinary Connections	- Mathematical connections - Connection to English - Science and society - Scientific discoveries and the link to Ethics	
Lesson resources / Activities	- Hands-on activities -Laboratories related to the subject matter -Word processing systems -Computer access	
2009 NJCCCS		

Standard:5.3.12							
Strand(s):E.3							
Content Statement(s): Provide a scientific explanation for the history of life on Earth using scientific evidence.				**CPI # / CPI(s):**			
21st Century Themes							
	Global Awareness		Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy
21st Century Skills							
	Creativity and Innovation		Critical Thinking and Problem Solving		Communication and Collaboration		Information Literacy
	Media Literacy		ICT Literacy		Life and Career Skills		

Pine Hill Public Schools Science Curriculum		
Unit Title: Evolution		**Unit # 13**
Course or Grade Level: CP Biology	**Length of Time: 15 days**	
Pacing		
Essential Questions	- How do natural selection and evolution explain the development of Earth's present species? -What is the major evidence for evolution? -How does natural selection encourage inter and intra specific diversity over time? -What are the various mechanisms of evolution?	
Content	-Evolution, speciation, population, adaptation -Darwin's theory of natural selection -Evidence for evolution- fossils, comparative anatomy, embryological similarities, biochemistry -Evolutionary processes – reproductive isolation, adaptive radiation, divergent evolution, convergent evolution, ,and co-evolution -Genetic drift vs. Gene flow -Types of natural selection	
Skills	-Define evolution, species, population, speciation, and adaptation -Provide examples of adaptations in organisms -Define and model natural selection -Provide and explain examples of evolution -Recognize that evolution occurs as a result of a combination of factors and list the factors	
Math Skills/ Science Processes	-Use of graphs - Creation and usage of data tables - Use of Graphing Calculators -Use of graphs and charts	
Assessments	-Homework/ Class work -Quiz -Test -Labs on modeling natural selection, antibiotic resistance, gene frequencies -Benchmark #3	
Interventions / differentiated instruction	-Provide advanced notice of tests -Include hands-on activities -Provide material at student's level of functioning -Use multi sensory approach	
Inter-disciplinary Connections	- Mathematical connections - Connection to English - Science and society - Scientific discoveries and the link to Ethics	
Lesson resources / Activities	- Hands-on activities -Laboratories related to the subject matter -Word processing systems -Computer access	
2009 NJCCCS		

Standard:5.3.12							
Strand(s):E.1							
Content Statement(s): Account for the appearance of a novel trait that arose in a given population.				**CPI # / CPI(s):**			
21st Century Themes							
	Global Awa-reness		Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy
21st Century Skills							
	Creativity and Innovation		Critical Thinking and Problem Solving		Communication and Collaboration		Information Literacy
	Media Literacy		ICT Literacy		Life and Career Skills		

Pine Hill Public Schools Science Curriculum		
Unit Title: Ecology and Human Impacts on the Environment		**Unit # 14**
Course or Grade Level: CP Biology	**Length of Time: 18 days**	
Pacing		
Essential Questions	-How are organisms dependent on each other? -How do human activities impact the environment and living systems? -How does energy flow through an ecosystem?	
Content	- Abiotic and biotic factors in an ecosystem -Trophic levels - Energy flow -Habitat and Niche -Limits on populations -Human modification of ecosystems -Evidence of habitat destruction and threats on ecosystem stability	
Skills	-Identify biotic and abiotic factors in an ecosystem -Trace energy flow through an ecosystem -Identify factors that limit population growth -Provide evidence of habit destruction and threats to current local and global ecosystem stability -Identify methods/causes of habitat destruction by humans -Analyze interactions between organisms Analyze the various symbiotic relationships among plants and animals -Predict the impact of natural disasters on ecosystems	
Math Skills/ Science Processes	-Use of graphs - Creation and usage of data tables - Use of Graphing Calculators -Use of graphs and charts	
Assessments	-Homework/ Class work -Quiz -Test - Labs/activities on biotic vs. abiotic factors, energy flow through an ecosystem, human impacts on the environment -Online activities -Performance Assessment (Live and Let Live or Biofuels)	
Interventions / differentiated instruction	-Provide advanced notice of tests -Include hands-on activities -Provide material at student's level of functioning -Use multi sensory approach	
Inter-disciplinary Connections	- Mathematical connections - Connection to English - Science and society - Scientific discoveries and the link to Ethics	

Lesson resources / Activities	- Hands-on activities -Laboratories related to the subject matter -Word processing systems -Computer access

2009 NJCCCS	
Standard:5.3.12	
Strand(s):C.1	
Content Statement(s): Analyze the interrelationships and interdependencies among organisms, and explain how these relationships contribute to the stability of the ecosystem.	**CPI # / CPI(s):**

21st Century Themes							
	Global Awareness		Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy
21st Century Skills							
	Creativity and Innovation		Critical Thinking and Problem Solving		Communication and Collaboration		Information Literacy
	Media Literacy		ICT Literacy		Life and Career Skills		

Pine Hill Public Schools Science Curriculum		
Unit Title: Biology Competency test Review		**Unit # 15**
Course or Grade Level: CP Biology	**Length of Time: 1 week**	
Pacing		
Essential Questions	-What is the relationship between structure and function in living systems? -How are matter and energy transformed and transferred in living systems? -How do responses to internal and external stimuli lead to the survival of an organism? -Why do organisms have their specific traits? -How do natural selection and evolution explain the development of Earth's present species? -How do human activities impact the environment and living systems?	
Content	- Review goals A-O	
Skills	-Complete performance assessment -Complete benchmark assessment #4 -Utilize EOC review materials -Use rubric to interpret and correct practice written assessments	
Math Skills/ Science Processes	-Use of graphs - Creation and usage of data tables - Use of Graphing Calculators -Use of graphs and charts	
Assessments	-Benchmark -Practice performance assessment	
Interventions / differentiated instruction	-Provide advanced notice of tests -Include hands-on activities -Provide material at student's level of functioning -Use multi sensory approach	
Inter-disciplinary Connections	- Mathematical connections - Connection to English - Science and society - Scientific discoveries and the link to Ethics	
Lesson resources / Activities	- Hands-on activities -Laboratories related to the subject matter -Word processing systems -Computer access	
2009 NJCCCS		
Standard:		
Strand(s):		
Content Statement(s):	**CPI # / CPI(s):**	

21st Century Themes							
	Global Awareness		Financial, Economic, Business, and Entrepreneurial Literacy		Civic Literacy		Health Literacy
21st Century Skills							
	Creativity and Innovation		Critical Thinking and Problem Solving		Communication and Collaboration		Information Literacy
	Media Literacy		ICT Literacy		Life and Career Skills		