<table>
<tr>
<td rowspan="2"><u>Theme/Unit</u>: Unit 1 – Introduction to Living Things (3 weeks)

<u>Enduring Understandings</u>:
• Living things come in a wide variety of shapes, sizes, colors, and live in different environments while performing different tasks, yet they all share the fundamental characteristics that makes something living.</td>
<td rowspan="2"><u>Reading Outcomes</u></td>
<td>Standards-Based Essential Skills to be Targeted Throughout the Unit</td>
<td>Strategies or Best Practices Used to Explicitly Teach Skills and Concepts</td>
<td colspan="2" rowspan="2"><u>Instructional Resources</u></td>
</tr>
<tr>
<td>• CCSS.ELA-Literacy.RST.6-8.1
• CCSS.ELA-Literacy.RST.6-8.4
• CCSS.ELA-Literacy.RST.6-8.7
• CCSS.ELA-Literacy.RST.6-8.10</td>
<td>After instruction, students will be able to:
• List the characteristics all living things share
• Explain where living things come from
• Identify what all living things need to survive
• Explain why biologists classify organisms and how they assign scientific names
• Describe the organization of the levels of classification
• Explain how taxonomic keys are useful
• Explain how organisms are classified into domains and kingdoms
• Explain the relationship between evolution and classification</td>
</tr>
<tr>
<td rowspan="3"><u>Assessments</u>:

<u>Formative – During Unit</u>:
What is Life? WKST, Shoe Classification Lab, What is Life? Quiz, Classifying Life WKST, Dichotomous Key HW, Domains and Kingdoms WKST, Evolution WKST, Unit 1 Review Sheet

<u>Summative – End of Unit</u>:
• Unit 1 Test</td>
<td rowspan="3"><u>Writing Outcomes</u></td>
<td rowspan="3">• CCSS.ELA-Literacy.WHST.6-8.1
• CCSS.ELA-Literacy.WHST.6-8.2
• CCSS.ELA-Literacy.WHST.6-8.4</td>
<td rowspan="3"><u>Literature Based Writing</u>:

<u>Informational Writing</u>:</td>
<td><u>Literature</u></td>
<td>• Thorton, K., Buckley, D., et al. (2013). Interactive science: Life science (pp. 3-29). Upper Saddle River, NJ: Pearson.
• Thorton, K., Buckley, D., et al. (2013). Interactive science: Physical science (Teacher ed., pp. 3-29G). Upper Saddle River, NJ: Pearson.</td>
</tr>
<tr>
<td><u>Poetry</u></td>
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<td><u>Informational</u></td>
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<tr>
<td rowspan="2"><u>Notes:</u>
Students will be given Guided Notes on the following subtopics:
• What is Life?
• Classifying Life
• Domains and Kingdoms
• Evolution

<u>Review:</u>
• Unit 1 Review Sheet

<u>Websites:</u>
• Brain Pop
• YouTube</td>
<td rowspan="2"><u>Language/Listening and Speaking</u></td>
<td rowspan="2"></td>
<td rowspan="2"></td>
<td rowspan="2"><u>Focus Vocabulary</u></td>
<td><u>Tier 2 – Academic Vocabulary:</u>
Describe, explain, identify, observe, determine, compare, classify</td>
</tr>
<tr>
<td><u>Tier 3 – Content Vocabulary:</u>
Organism, cell, unicellular, multicellular, metabolism, stimulus, response, development, asexual reproduction, sexual reproduction, spontaneous generation, controlled experiment, autotroph, heterotroph, homeostasis, classification, taxonomy, binomial nomenclature, genus, species, prokaryote, nucleus, eukaryote, evolution, branching tree diagram, shared derived characteristic, convergent evolution</td>
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<tr>
<td rowspan="2"><u>Theme/Unit</u>: Unit 2 – Introduction to Cells and Cell Processes (6-7 weeks)

<u>Enduring Understandings</u>:
• All cells are the basic units of structure and function and contain all of the essential components to carryout all life processes.
• All living things must get energy by the process of cellular respiration by breaking down food, but the way they obtain food can be different. Some organisms make their own food through the process of photosynthesis; other organisms must get their food from the environment.</td>
<td rowspan="2"><u>Reading Outcomes</u></td>
<td rowspan="2">Standards-Based Essential Skills to be Targeted Throughout the Unit
• CCSS.ELA-Literacy.RST.6-8.1
• CCSS.ELA-Literacy.RST.6-8.3
• CCSS.ELA-Literacy.RST.6-8.4
• CCSS.ELA-Literacy.RST.6-8.7
• CCSS.ELA-Literacy.RST.6-8.10</td>
<td rowspan="2">Strategies or Best Practices Used to Explicitly Teach Skills and Concepts
After instruction, students will be able to:
• Describe what cells are
• Describe how scientists first observed cells and developed the cell theory
• Describe how microscopes produce magnified images
• Describe the functions of cell structures and organelles
• Describe how cells are organized in many-celled organisms
• Define elements and compounds
• Identify the main compounds that are important in cells
• Describe how materials move into and out of cells
• Describe how living things get energy from the sun
• Describe what happens during photosynthesis
• Describe the events that occur during respiration
• Tell what happens during fermentation
• Summarize the functions of cell division
• Identify the events that take place during the three stages of the cell cycle</td>
<td colspan="2"><u>Instructional Resources</u></td>
</tr>
<tr>
<td><u>Literature</u></td>
<td>• Thorton, K., Buckley, D., et al. (2013). Interactive science: Life science (pp. 39-99). Upper Saddle River, NJ: Pearson.
• Thorton, K., Buckley, D., et al. (2013). Interactive science: Physical science (Teacher ed., pp. 39-99G). Upper Saddle River, NJ: Pearson.</td>
</tr>
<tr>
<td rowspan="2"><u>Assessments</u>:

<u>Formative – During Unit</u>:
Inquiry Microscope Lab, Discovering Cells WKST, Microscope Warm-Up Quiz, Microscope Lab, Functions of a Cell Warm-Up Quiz, Microscope Quiz, Looking Inside Cells, Cell Parts Quiz, Chemical Compounds, Cell in its Environment, Diffusion WKST, Photosynthesis WKST, Photosynthesis Review Sheet, Photosynthesis Quiz, Cellular Respiration WKST, Fermentation/Cell Respiration WKST, Cellular Respiration Quiz, Yeast Fermentation Lab, Unit 2 Review Sheet

<u>Summative – End of Unit</u>:
• Mitosis Project
• Unit 2 Test

<u>Presentation:</u>
• Mitosis Project</td>
<td rowspan="2"><u>Writing Outcomes</u></td>
<td rowspan="2">• CCSS.ELA-Literacy.WHST.6-8.1
• CCSS.ELA-Literacy.WHST.6-8.2
• CCSS.ELA-Literacy.WHST.6-8.4
• CCSS.ELA-Literacy.WHST.6-8.5
• CCSS.ELA-Literacy.WHST.6-8.6
• CCSS.ELA-Literacy.WHST.6-8.7
• CCSS.ELA-Literacy.WHST.6-8.8
• CCSS.ELA-Literacy.WHST.6-8.9</td>
<td rowspan="2"><u>Literature Based Writing</u>:

<u>Informational Writing</u>:</td>
<td><u>Poetry</u></td>
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<tr>
<td><u>Informational</u></td>
<td></td>
</tr>
<tr>
<td><u>Notes:</u>
Students will be given Guided Notes on the following subtopics:
• Discovering Cells
• Looking Inside Cells</td>
<td><u>Language/Listening and</u></td>
<td></td>
<td></td>
<td><u>Focus Vocabulary</u></td>
<td><u>Tier 2 – Academic Vocabulary:</u>
Describe, explain, identify, observe, determine, summarize</td>
</tr>
</table>

• Chemical Compounds • Cell in its Environment • Photosynthesis • Cellular Respiration • Cell Division **Review:** • Photosynthesis Review Sheet • Unit 2 Review Sheet **Websites:** • Brain Pop • YouTube					**Tier 3 – Content Vocabulary:** Cell, microscope, cell theory, cell wall, cell membrane, nucleus, organelle, ribosome, cytoplasm, mitochondria, endoplasmic reticulum, Golgi apparatus, vacuole, chloroplast, lysosome, multicellular, unicellular, tissue, organ, organ system, element, compound, carbohydrate, lipid, protein, enzyme, nucleic acid, DNA, double helix, selectively permeable, passive transport, diffusion, osmosis, active transport, endocytosis, exocytosis, photosynthesis, autotroph, heterotroph, chlorophyll, cellular respiration, fermentation, cell cycle, interphase, replication, chromosome, mitosis, cytokinesis

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<tr>
<td rowspan="2"><u>Theme/Unit</u>: Unit 3 – Genetics and DNA (4 weeks)

<u>Enduring Understandings</u>:
• Hereditary information is passed down to offspring through DNA from parents. If DNA is passed down from one parent, the offspring will be identical, however, if DNA is passed down from two parents, the offspring may look different from their parents.
• DNA is also the instruction manual used to build proteins, which serve as regulators of a cell or body. Any mutations to the DNA may alter the proteins that must be built.</td>
<td rowspan="2"><u>Reading Outcomes</u></td>
<td rowspan="2">Standards-Based Essential Skills to be Targeted Throughout the Unit
• CCSS.ELA-Literacy.RST.6-8.1
• CCSS.ELA-Literacy.RST.6-8.3
• CCSS.ELA-Literacy.RST.6-8.4
• CCSS.ELA-Literacy.RST.6-8.7
• CCSS.ELA-Literacy.RST.6-8.10</td>
<td rowspan="2">Strategies or Best Practices Used to Explicitly Teach Skills and Concepts
After instruction, students will be able to:
• Describe the results of Mendel’s experiments
• Identify the role of alleles in controlling the inheritance of traits
• Define probability and describe how it helps explain the results of genetic crosses
• Explain what is meant by phenotype and genotype
• Describe at least three complex patterns of inheritance
• Discuss how characteristics result from inheritance and environmental factors
• Describe the role of chromosomes and genes play in inheritance
• Identify the events that occur during meiosis and fertilization
• Explain what forms the genetic code
• Describe how DNA copies itself
• Describe how a cell produces proteins
• Identify how mutations can affect an organism
• Explain how cancer is related to mutations and the cell cycle
• Identify some patterns of inheritance in humans
• Describe the functions of the sex chromosomes
• Describe three ways of producing organisms with desired traits</td>
<td colspan="2"><u>Instructional Resources</u></td>
</tr>
<tr>
<td><u>Literature</u></td>
<td>• Thorton, K., Buckley, D., et al. (2013). Interactive science: Life science (pp. 109-171). Upper Saddle River, NJ: Pearson.
• Thorton, K., Buckley, D., et al. (2013). Interactive science: Physical science (Teacher ed., pp. 109-171G). Upper Saddle River, NJ: Pearson.</td>
</tr>
<tr>
<td rowspan="2"><u>Assessments</u>:

<u>Formative – During Unit</u>:
Kitten Inquiry Activity, What is Heredity? WKST, Alleles Warm-Up Quiz, Probability and Heredity WKST, Patterns of Inheritance WKST, Chromosomes and Inheritance WKST, Genetic Code WKST, How Proteins are Made WKST, Mutations WKST, Human Inheritance WKST, Advances in Genetics WKST, Unit 3 Review Sheet

<u>Summative – End of Unit</u>:
• Unit 3 Test</td>
<td rowspan="2"><u>Writing Outcomes</u></td>
<td rowspan="2">• CCSS.ELA-Literacy.WHST.6-8.1
• CCSS.ELA-Literacy.WHST.6-8.2
• CCSS.ELA-Literacy.WHST.6-8.4</td>
<td rowspan="2"><u>Literature Based Writing</u>:

<u>Informational Writing</u>:</td>
<td><u>Poetry</u></td>
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<tr>
<td><u>Informational</u></td>
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<tr>
<td><u>Notes:</u>
Students will be given Guided Notes on the following subtopics:
• What is Heredity?
• Probability and Heredity</td>
<td><u>Language/Listening and</u></td>
<td></td>
<td></td>
<td><u>Focus Vocabulary</u></td>
<td><u>Tier 2 – Academic Vocabulary:</u>
Describe, define, explain, identify, observe, determine</td>
</tr>
</table>

• Patterns of Inheritance • Chromosomes and Inheritance • The Genetic Code • How Cells Make Proteins • Mutations • Human Inheritance • Advances in Genetics **Review:** • Unit 3 Review Sheet **Websites:** • Brain Pop • YouTube					**Tier 3 – Content Vocabulary:** Heredity, trait, genetics, fertilization, purebred, gene, allele, dominant allele, recessive allele, hybrid, probability, Punnett square, phenotype, genotype, homozygous, heterozygous, incomplete dominance, codominance, multiple alleles, polygenic inheritance, meiosis, nitrogen bases, DNA replication, messenger RNA, transfer RNA, mutation, cancer, tumor, chemotherapy, sex chromosomes, sex-linked gene, carrier, selective breeding, inbreeding, hybridization, clone, genetic engineering, gene therapy

<table>
<tr>
<td rowspan="2"><u>Theme/Unit</u>: Unit 4 – Evolution (2 weeks)

<u>Enduring Understandings</u>:
• Life forms gradually change over time through the process of natural selection, where the organisms that survive are the ones that have better traits suited for their particular environment.</td>
<td rowspan="2"><u>Reading Outcomes</u></td>
<td>Standards-Based Essential Skills to be Targeted Throughout the Unit</td>
<td>Strategies or Best Practices Used to Explicitly Teach Skills and Concepts</td>
<td colspan="2" rowspan="2"><u>Instructional Resources</u></td>
</tr>
<tr>
<td>• CCSS.ELA-Literacy.RST.6-8.1
• CCSS.ELA-Literacy.RST.6-8.3
• CCSS.ELA-Literacy.RST.6-8.4
• CCSS.ELA-Literacy.RST.6-8.7
• CCSS.ELA-Literacy.RST.6-8.10</td>
<td>After instruction, students will be able to:
• Describe how Darwin’s observations helped him to develop his hypothesis
• Explain how natural selection leads to evolution
• State evidence that supports the theory of evolution
• Explain how new species form
• Identify the two patterns that describe the rate of evolution</td>
</tr>
<tr>
<td rowspan="2"><u>Assessments</u>:

<u>Formative – During Unit</u>:
Darwin’s Theory WKST, Evidence of Evolution WKST, Rate of Change WKST, Unit 4 Review Sheet

<u>Summative – End of Unit</u>:
• Unit 4 Test</td>
<td rowspan="2"><u>Writing Outcomes</u></td>
<td rowspan="2">• CCSS.ELA-Literacy.WHST.6-8.1
• CCSS.ELA-Literacy.WHST.6-8.2
• CCSS.ELA-Literacy.WHST.6-8.4</td>
<td rowspan="2"><u>Literature Based Writing</u>:

<u>Informational Writing</u>:</td>
<td><u>Poetry</u></td>
<td></td>
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<tr>
<td><u>Informational</u></td>
<td></td>
</tr>
<tr>
<td rowspan="2"><u>Notes:</u>
Students will be given Guided Notes on the following subtopics:
• Darwin’s Theory
• Evidence of Evolution
• Rate of Change

<u>Review:</u>
• Unit 4 Review Sheet

<u>Websites:</u>
• Brain Pop
• YouTube</td>
<td rowspan="2"><u>Language/Listening and Speaking</u></td>
<td rowspan="2"></td>
<td rowspan="2"></td>
<td rowspan="2"><u>Focus Vocabulary</u></td>
<td><u>Tier 2 – Academic Vocabulary:</u>
Describe, define, explain, identify, state</td>
</tr>
<tr>
<td><u>Tier 3 – Content Vocabulary:</u>
Species, fossil, adaptation, evolution, scientific theory, natural selection, variation, homologous structures, gradualism, punctuated equilibrium</td>
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<tr>
<td rowspan="2"><u>Theme/Unit</u>: Unit 5 – Viruses, Bacteria, Protists, and Fungi (2 weeks)

<u>Enduring Understandings</u>:
• Viruses, bacteria, protists, and fungi, although generally very small, are essential to the proper functioning of the Earth. These organisms return nutrients to the soil, help plants grow, and produce most of the oxygen in the Earth’s atmosphere.</td>
<td rowspan="2"><u>Reading Outcomes</u></td>
<td>Standards-Based Essential Skills to be Targeted Throughout the Unit</td>
<td>Strategies or Best Practices Used to Explicitly Teach Skills and Concepts</td>
<td colspan="2" rowspan="2"><u>Instructional Resources</u></td>
</tr>
<tr>
<td>• CCSS.ELA-Literacy.RST.6-8.1
• CCSS.ELA-Literacy.RST.6-8.4
• CCSS.ELA-Literacy.RST.6-8.10</td>
<td>After instruction, students will be able to:
• Name and describe the characteristics of viruses and how they multiply
• Discuss both positive and negative ways that viruses affect living things
• Name and describe structures, shapes, and sizes of a bacterial cell
• Explain how bacteria obtain food, obtain energy, and reproduce
• Describe the positive roles that bacteria play in the natural world
• Describe the characteristics animal-like protists and give examples
• Describe the characteristics of plant-like protists and give examples
• Describe the characteristics of fungus-like protists and give examples
• Name and describe the characteristics of fungi and how they reproduce
• Describe the roles fungi play in the natural world</td>
</tr>
<tr>
<td rowspan="3"><u>Assessments</u>:

<u>Formative – During Unit</u>:
Viruses WKST, Bacteria WKST, Viruses and Bacteria Quiz, Protists WKST, Fungi WKST, Unit 5 Review Sheet

<u>Summative – End of Unit</u>:
• Unit 5 Test</td>
<td rowspan="3"><u>Writing Outcomes</u></td>
<td rowspan="3">• CCSS.ELA-Literacy.WHST.6-8.1
• CCSS.ELA-Literacy.WHST.6-8.2
• CCSS.ELA-Literacy.WHST.6-8.4</td>
<td rowspan="3"><u>Literature Based Writing</u>:

<u>Informational Writing</u>:</td>
<td><u>Literature</u></td>
<td>• Thorton, K., Buckley, D., et al. (2013). Interactive science: Life science (pp. 209-243). Upper Saddle River, NJ: Pearson.
• Thorton, K., Buckley, D., et al. (2013). Interactive science: Physical science (Teacher ed., pp. 209-243H). Upper Saddle River, NJ: Pearson.</td>
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<tr>
<td><u>Poetry</u></td>
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<td><u>Informational</u></td>
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<tr>
<td rowspan="2"><u>Notes:</u>
Students will be given Guided Notes on the following subtopics:
• Viruses
• Bacteria
• Protists
• Fungi

<u>Review:</u>
• Unit 5 Review Sheet

<u>Websites:</u>
• Brain Pop
• YouTube</td>
<td rowspan="2"><u>Language/Listening and Speaking</u></td>
<td rowspan="2"></td>
<td rowspan="2"></td>
<td rowspan="2"><u>Focus Vocabulary</u></td>
<td><u>Tier 2 – Academic Vocabulary:</u>
Describe, name, discuss, explain</td>
</tr>
<tr>
<td><u>Tier 3 – Content Vocabulary:</u>
Virus, host, parasite, vaccine, bacteria, cytoplasm, ribosome, flagellum, cellular respiration, binary fission, conjugation, endospore, pasteurization, decomposer, protest, protozoan, pseudopod, contractile vacuole, cilia, algae, pigment, spore, fungus, hyphae, fruiting body, budding, lichen</td>
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<tr>
<td rowspan="2"><u>Theme/Unit</u>: Unit 6 – Plants (2 weeks)

<u>Enduring Understandings</u>:
• Plants come in a variety of shapes and sizes and reproduce differently, however, they all share the same basic characteristics that classify them as plants.</td>
<td rowspan="2"><u>Reading Outcomes</u></td>
<td>Standards-Based Essential Skills to be Targeted Throughout the Unit</td>
<td>Strategies or Best Practices Used to Explicitly Teach Skills and Concepts</td>
<td colspan="2" rowspan="2"><u>Instructional Resources</u></td>
</tr>
<tr>
<td>• CCSS.ELA-Literacy.RST.6-8.1
• CCSS.ELA-Literacy.RST.6-8.4
• CCSS.ELA-Literacy.RST.6-8.10</td>
<td>After instruction, students will be able to:
• Identify the characteristics that all plants share
• Name all the things that a plant needs to live successfully on land
• Name the major characteristics of nonvascular plants
• Name the major characteristics of seedless vascular plants
• Name the major characteristics of seed plants
• Describe the functions of roots, stems, and leaves
• Explain how seeds become new plants
• Describe the structures of a flower
• Identify the stages of a plant’s life cycle
• Describe how plants reproduce</td>
<td><u>Literature</u></td>
<td>• Thorton, K., Buckley, D., et al. (2013). Interactive science: Life science (pp. 253-287). Upper Saddle River, NJ: Pearson.
• Thorton, K., Buckley, D., et al. (2013). Interactive science: Physical science (Teacher ed., pp. 253-287G). Upper Saddle River, NJ: Pearson.</td>
</tr>
<tr>
<td rowspan="2"><u>Assessments</u>:

<u>Formative – During Unit</u>:
What is a Plant? WKST, Classifying Plants WKST, Plant Structures WKST, Plant Reproduction WKST, Unit 6 Review Sheet

<u>Summative – End of Unit</u>:
• Unit 6 Test</td>
<td rowspan="2"><u>Writing Outcomes</u></td>
<td rowspan="2">• CCSS.ELA-Literacy.WHST.6-8.1
• CCSS.ELA-Literacy.WHST.6-8.2
• CCSS.ELA-Literacy.WHST.6-8.4</td>
<td rowspan="2"><u>Literature Based Writing</u>:

<u>Informational Writing</u>:</td>
<td><u>Poetry</u></td>
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<tr>
<td><u>Informational</u></td>
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<tr>
<td rowspan="2"><u>Notes:</u>
Students will be given Guided Notes on the following subtopics:
• What is a Plant?
• Classifying Plants
• Plant Structures
• Plant Reproduction

<u>Review:</u>
• Unit 6 Review Sheet

<u>Websites:</u>
• Brain Pop
• YouTube</td>
<td rowspan="2"><u>Language/Listening and Speaking</u></td>
<td rowspan="2"></td>
<td rowspan="2"></td>
<td rowspan="2"><u>Focus Vocabulary</u></td>
<td><u>Tier 2 – Academic Vocabulary:</u>
Describe, name, identify, explain</td>
</tr>
<tr>
<td><u>Tier 3 – Content Vocabulary:</u>
Chlorophyll, photosynthesis, tissue, chloroplast, vacuole, cuticle, vascular tissue, nonvascular plant, rhizoid, vascular plant, phloem, xylem, frond, pollen, seed, gymnosperm, angiosperm, cotyledon, monocot, dicot, root cap, cambium, stoma, transpiration, embryo, germination, flower, pollination, sepal, petal, stamen, pistil, ovary, sporophyte, gametophyte, annual, biennial, perennial, fertilization, zygote, cone, ovule, fruit</td>
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<tr>
<td rowspan="2"><u>Theme/Unit</u>: Unit 7 – Animals (2 weeks)

<u>Enduring Understandings</u>:
• Animals are incredibly diverse organisms, but regardless of their distinctive appearances, all animals are multicellular and must obtain food from their environment.</td>
<td rowspan="2"><u>Reading Outcomes</u></td>
<td>Standards-Based Essential Skills to be Targeted Throughout the Unit</td>
<td>Strategies or Best Practices Used to Explicitly Teach Skills and Concepts</td>
<td colspan="2" rowspan="2"><u>Instructional Resources</u></td>
</tr>
<tr>
<td>• CCSS.ELA-Literacy.RST.6-8.1
• CCSS.ELA-Literacy.RST.6-8.4
• CCSS.ELA-Literacy.RST.6-8.10</td>
<td>After instruction, students will be able to:
• Identify four functions that enable animals to meet their basic needs
• Explain how animals are classified
• Identify the characteristics of invertebrates and describe the major groups of them
• Identify the characteristics of chordates and vertebrates
• Compare how vertebrates differ in the way they control body temperature
• Describe the major groups of vertebrates</td>
<td><u>Literature</u></td>
<td>• Thorton, K., Buckley, D., et al. (2013). Interactive science: Life science (pp. 307-333). Upper Saddle River, NJ: Pearson.
• Thorton, K., Buckley, D., et al. (2013). Interactive science: Physical science (Teacher ed., pp. 307-333G). Upper Saddle River, NJ: Pearson.</td>
</tr>
<tr>
<td rowspan="2"><u>Assessments</u>:

<u>Formative – During Unit</u>:
What is an Animal? WKST, Introduction to Vertebrates WKST, Introduction to Vertebrates WKST, Vertebrate Diversity WKST, Unit 7 Review Sheet

<u>Summative – End of Unit</u>:
• Unit 7 Test</td>
<td rowspan="2"><u>Writing Outcomes</u></td>
<td rowspan="2">• CCSS.ELA-Literacy.WHST.6-8.1
• CCSS.ELA-Literacy.WHST.6-8.2
• CCSS.ELA-Literacy.WHST.6-8.4</td>
<td rowspan="2"><u>Literature Based Writing</u>:

<u>Informational Writing</u>:</td>
<td><u>Poetry</u></td>
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<tr>
<td><u>Informational</u></td>
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<tr>
<td><u>Notes:</u>
Students will be given Guided Notes on the following subtopics:
• What is an Animal?
• Introduction to Invertebrates
• Introduction to Vertebrates
• Vertebrate Diversity

<u>Review:</u>
• Unit 7 Review Sheet

<u>Websites:</u>
• Brain Pop
• YouTube</td>
<td><u>Language/Listening and Speaking</u></td>
<td></td>
<td></td>
<td><u>Focus Vocabulary</u></td>
<td><u>Tier 2 – Academic Vocabulary:</u>
Describe, compare, identify, explain

<u>Tier 3 – Content Vocabulary:</u>
Homeostasis, adaptation, vertebrate, invertebrate, cnidarian, mollusk, arthropod, exoskeleton, echinoderm, endoskeleton, chordate, notochord, vertebra, ectotherm, endotherm, fish, cartilage, amphibian, reptile, bird, mammal, mammary gland, monotreme, marsupial, placental mammal, placenta</td>
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<tr>
<td rowspan="2"><u>Theme/Unit</u>: Unit 8 – Human Body Systems (4 weeks)

<u>Enduring Understandings</u>:
• The human body is a complex, well-oiled machine that includes eleven different systems that work in synchronistic harmony in order to maintain balance.</td>
<td rowspan="2"><u>Reading Outcomes</u></td>
<td>Standards-Based Essential Skills to be Targeted Throughout the Unit</td>
<td>Strategies or Best Practices Used to Explicitly Teach Skills and Concepts</td>
<td colspan="2"><u>Instructional Resources</u></td>
</tr>
<tr>
<td>• CCSS.ELA-Literacy.RST.6-8.1
• CCSS.ELA-Literacy.RST.6-8.2
• CCSS.ELA-Literacy.RST.6-8.3
• CCSS.ELA-Literacy.RST.6-8.4
• CCSS.ELA-Literacy.RST.6-8.7
• CCSS.ELA-Literacy.RST.6-8.10</td>
<td>After instruction, students will be able to:
• List the levels of organization in the body
• Describe how the skeletal and muscular systems work together
• Describe which body systems work together to obtain and transport materials
• Describe which body systems control communication and regulation
• Identify the structures and functions of the skeletal, muscular, integumentary, nervous, digestive, circulatory, respiratory, excretory, endocrine, and reproductive systems
• Explain the role that joints play in the body
• Describe the characteristics of bones and how to keep bones strong and healthy
• Identify the types of muscle found in the body
• Explain how skeletal muscles work in pairs
• Describe how your senses work
• Explain why the body needs food and what nutrients it uses
• Describe the characteristics of blood
• Explain what happens during breathing and gas exchange
• Explain how excretion contributes to homeostasis
• Describe how the glands of the endocrine system control body processes
• Explain how negative feedback controls hormone levels
• Sequence the events that occur during the menstrual cycle
• Describe the relationship between pathogens and infectious disease
• Identify pathogens that cause infectious disease in humans and how they spread
• Explain how the body’s first line of defense guards against pathogens
• Describe how the inflammatory response and the immune system function
• Identify how HIV affects the body and how it is spread and treated</td>
<td><u>Literature</u></td>
<td>• Thorton, K., Buckley, D., et al. (2013). Interactive science: Life science (pp. 407-567). Upper Saddle River, NJ: Pearson.
• Thorton, K., Buckley, D., et al. (2013). Interactive science: Physical science (Teacher ed., pp. 407-567G). Upper Saddle River, NJ: Pearson.</td>
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<tr>
<td rowspan="2"><u>Assessments</u>:

<u>Formative – During Unit</u>:
Body Organization WKST, System Interactions WKST, Skeletal System WKST, Muscular System WKST, Neuron WKST, Divisions of the Nervous System WKST, Digestive System WKST, Circulatory System WKST, How Do You Rate? Lab, Digestion Graph Practice, Heart Article, Brain Article, Asthma Article, Respiration Graph Practice, Respiratory and Excretory WKST, Endocrine System WKST, Male/Female Reproductive System WKST, Infectious Disease WKST, Body’s Defenses WKST, HIV/AIDS WKST Unit 8 Review Sheet

<u>Summative – End of Unit</u>:
• Which System is Most Important? Project
• Unit 8 Test</td>
<td rowspan="2"><u>Writing Outcomes</u></td>
<td rowspan="2">• CCSS.ELA-Literacy.WHST.6-8.1
• CCSS.ELA-Literacy.WHST.6-8.2
• CCSS.ELA-Literacy.WHST.6-8.4
• CCSS.ELA-Literacy.WHST.6-8.5
• CCSS.ELA-Literacy.WHST.6-8.6
• CCSS.ELA-Literacy.WHST.6-8.7
• CCSS.ELA-Literacy.WHST.6-8.8
• CCSS.ELA-Literacy.WHST.6-8.9</td>
<td rowspan="2"><u>Literature Based Writing</u>:

<u>Informational Writing</u>:</td>
<td><u>Poetry</u></td>
<td></td>
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<tr>
<td><u>Informational</u></td>
<td></td>
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Notes: Students will be given Guided Notes on the following subtopics: • Body Organization • Systems Interactions • Skeletal System • Muscular System • The Skin • The Nervous System • Digestive System • Circulatory System • Respiratory System • Excretory System • Endocrine System • Reproductive Systems • Infectious Disease • The Body's Defenses • HIV/AIDS **Review:** • Unit 8 Review Sheet **Websites:** • Brain Pop • YouTube	**Language/Listening and Speaking**			**Focus Vocabulary**	**Tier 2 – Academic Vocabulary:** Describe, identify, explain, list **Tier 3 – Content Vocabulary:** Cell, cell membrane, nucleus, cytoplasm, tissue, muscle tissue, nervous tissue, connective tissue, epithelial tissue, organ, organ system, skeleton, skeletal muscle, joint, nutrient, absorption, gland, stimulus, response, hormone, vertebrate, ligament, compact bone, spongy bone, marrow, cartilage, osteoporosis, involuntary muscle, voluntary muscle, skeletal muscle, tendon, smooth muscle, cardiac muscle, striated muscle, epidermis, melanin, dermis, pore, follicle, calorie, enzyme, esophagus, peristalsis, villi, circulatory system, heart, atrium, ventricle, valve, artery, aorta, capillary, vein, hemoglobin, pharynx, trachea, cilia, bronchi, lungs, alveoli, diaphragm, larynx, vocal cords, excretion, urea, urine, kidney, ureter, urinary bladder, urethra, nephron, gland, duct, hormone, target cell, hypothalamus, pituitary gland, negative feedback, fertilization, egg, sperm, zygote, testes, testosterone, scrotum, semen, penis, ovary, estrogen, Fallopian tube, uterus, vagina, menstrual cycle, menstruation, ovulation, microorganism, pathogen, infectious disease, toxin, inflammatory response, lymphocyte, T cell, antigen, B cell, antibody, AIDS, HIV, immunity, vaccine

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<td rowspan="2"><u>Theme/Unit</u>: Unit 9 – Ecology (4 weeks)

<u>Enduring Understandings</u>:
• Organisms in an environment depend on each other for food, but they also depend on the nonliving components of the environment for water, exchange of gases, exchange of nutrients, and shelter.</td>
<td rowspan="2"><u>Reading Outcomes</u></td>
<td rowspan="2">Standards-Based Essential Skills to be Targeted Throughout the Unit
• CCSS.ELA-Literacy.RST.6-8.1
• CCSS.ELA-Literacy.RST.6-8.2
• CCSS.ELA-Literacy.RST.6-8.3
• CCSS.ELA-Literacy.RST.6-8.4
• CCSS.ELA-Literacy.RST.6-8.7
• CCSS.ELA-Literacy.RST.6-8.10</td>
<td rowspan="2">Strategies or Best Practices Used to Explicitly Teach Skills and Concepts
After instruction, students will be able to:
• Identify the needs that must be met by and organism's surroundings
• Identify biotic and abiotic parts of a habitat
• Describe the levels of organization within an ecosystem
• Describe how populations change in size
• Identify the factors that limit population growth
• Explain how adaptations help an organism survive
• Describe competition and predation
• Identify the three types of symbiosis
• Explain the difference between primary and secondary succession
• Name and describe the energy roles that organisms play in an ecosystem
• Explain how energy moves through an ecosystem
• Name and describe the processes involved in the water cycle
• Explain how the carbon and oxygen cycles are related
• Define and describe the nitrogen cycle
• Explain the value of biodiversity
• Identify the factors that affect biodiversity
• Identify ways that human activity threatens and protects biodiversity</td>
<td colspan="2"><u>Instructional Resources</u></td>
</tr>
<tr>
<td><u>Literature</u></td>
<td>• Thorton, K., Buckley, D., et al. (2013). Interactive science: Life science (pp. 591-669). Upper Saddle River, NJ: Pearson.
• Thorton, K., Buckley, D., et al. (2013). Interactive science: Physical science (Teacher ed., pp. 591-669H). Upper Saddle River, NJ: Pearson.</td>
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<td rowspan="3"><u>Assessments</u>:

<u>Formative – During Unit</u>:
Living Things and Their Environment WKST, Populations WKST, Interactions Among Living Things WKST, Changes in Communities WKST, Energy Flow in Ecosystems, Cycles of Matter WKST, Ecosystem Review WKST, Biodiversity WKST, Human Impact WKST, Human Impact Lab, Humans and Biodiversity Lab, Ecology Review Sheet

<u>Summative – End of Unit</u>:
• Biodiversity/Human Impact Project
• Unit 8 Test

<u>Presentation:</u>
• Biodiversity/Human Impact Project</td>
<td rowspan="3"><u>Writing Outcomes</u></td>
<td rowspan="3">• CCSS.ELA-Literacy.WHST.6-8.1
• CCSS.ELA-Literacy.WHST.6-8.2
• CCSS.ELA-Literacy.WHST.6-8.4
• CCSS.ELA-Literacy.WHST.6-8.5
• CCSS.ELA-Literacy.WHST.6-8.6
• CCSS.ELA-Literacy.WHST.6-8.7
• CCSS.ELA-Literacy.WHST.6-8.8
• CCSS.ELA-Literacy.WHST.6-8.9</td>
<td rowspan="3"><u>Literature Based Writing</u>:

<u>Informational Writing</u>:</td>
<td><u>Poetry</u></td>
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<td><u>Notes:</u>
Students will be given Guided Notes on the following subtopics:
• Living Things and Their Environment
• Populations</td>
<td><u>Language/Listening and</u></td>
<td></td>
<td></td>
<td><u>Focus Vocabulary</u></td>
<td><u>Tier 2 – Academic Vocabulary:</u>
Describe, identify, explain, name</td>
</tr>
</table>

• Interactions Among Living Things • Changes in Communities • Energy Flow in Ecosystems • Cycles of Matter • Biodiversity • Human Impact **Review:** • Ecosystem Review WKST • Unit 8 Review Sheet **Websites:** • Brain Pop • YouTube					**Tier 3 – Content Vocabulary:** Organism, habitat, biotic factor, abiotic factor, species, population, community, ecosystem, ecology, birth rate, death rate, immigration, emigration, population density, limiting factor, carrying capacity, natural selection, adaptation, niche, competition, predation, predator, prey, symbiosis, mutualism, commensalism, parasitism, parasite, host, succession, primary succession, pioneer species, secondary succession, producer, consumer, herbivore, carnivore, omnivore, scavenger, decomposer, food chain, food web, energy pyramid, evaporation, condensation, precipitation, nitrogen fixation, biodiversity, keystone species, gene, extinction, endangered species, threatened species, habitat destruction, habitat fragmentation, poaching, captive breeding