

Pacing Guide (Sept. 2017 – June 2018)

Grade: (6-8)

Subject: Life Science

Pacing	Essential Standard	Unit Topic(s) and Essential Questions	Student Target Outcomes and Goals <i>SWBAT</i>	Focus Topics/Skills	Assessment	Resources	Catholic Identity
Sept.	S2.1a S2.2b	Lab Safety -Why is preparation important when carrying out scientific investigations?	-State and follow safety procedures in the classroom and lab. -Properly use science equipment	-Correctly use personal protective equipment	-Quizzes -Experiments -Teacher observations	-Safety Handbook in the textbook. -Textbook	-Catechism of the Catholic Church: "Respect for the person and scientific research" (2292) Respect for life.
	S2.1b S2.2b	Scientific Method - How do Scientists investigate the natural world?	-Identify the steps in the Scientific Method. -Apply the SM -Use graphs to present, interpolate and extrapolate information -Scientific measurement	-Use the scientific method to develop and test a hypothesis -Variables/Controls -Metric system -Observation vs. Inference	-Interactive Student Journal -Worksheets -Lab practical/ reports	- Scientific Method Websites -Interactive media -Videos	-Roger Bacon (1214–1294) Franciscan friar who is described as the forerunner to the modern scientific method

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Oct.	MS-LS1 LS1-A LS1-2 LS1-2 MS-S1-1	<p>Introduction to Cells</p> <ul style="list-style-type: none"> -What is a cell? -What types of cells are there? -How are cells organized? -How do the cells of living things meet their basic needs? -How do materials move in and out of cells? -How do scientists increase their power of observation by using instruments? 	<ul style="list-style-type: none"> -Explain cell traits -Summarize the theories that led to the Cell Theory -Compare and contrast animal and plant cells. -Label and identify structures/functions of cell parts -Identify the names and functions of each part of the cell. -Use a microscope to view living things. -Identify parts/functions of the microscope 	<ul style="list-style-type: none"> -Looking inside cells -Unicellular vs Multicellular -Prokaryotic vs Eukaryotic -Cell Theory -Cell organelles/structure -Chemical compounds in cell -Diffusion -Osmosis -Active/Passive transport -Compound light microscope -Measuring with microscope -Preparing a wet mount slide -Slide staining techniques 	<ul style="list-style-type: none"> -Formative/Summative assessments -Lab activities -Projects -Virtual labs -Cells Interactive: http://www.shppardsoftware.com/health/anatomy/cell/index.htm -Formative/Summative assessments -Lab activities -Projects -Virtual labs -Measuring length using the microscope 	<ul style="list-style-type: none"> -Design a model of a plant/animal cell -Observe living cells(Cheek to Cheek lab) -Gummy Bear osmosis lab -Egg osmosis lab -Model of a microscope -BrainPop Movie -BrainPop Virtual Lab Using the Microscope 	<ul style="list-style-type: none"> - Genesis 1:God’s Creation -Gn 1:27 “God created man in his image” -Gn 2:7”The Lord God formed man out of the clay of the ground...” Catholic Catechism: ”Human life is sacred because from its beginning it involves the creative action of God...” (2258)

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	LS1.A	<ul style="list-style-type: none"> -How is the body a system of interacting subsystems? -How is the body organized? 	<ul style="list-style-type: none"> -Explain tissues, organs and organ systems -Identify how materials move in and out of cells 	<ul style="list-style-type: none"> -Cell, tissue, organs, organ systems -Respiration/Photosynthesis -Chemical compounds in cell -Human body systems 	<ul style="list-style-type: none"> -Formative/Summative assessments -Lab activities -Projects -Diagrams -Virtual labs 	<ul style="list-style-type: none"> -Textbook -Interactive workbook -Videos 	-Romans 12:3-8 “Many Parts in One Body”
	MS-LS1-4 MS-LS1-5	<ul style="list-style-type: none"> -What are the functions of cell division? -What are the events that take place during the stages of the cell cycle? <p>Growth, Development, and Reproduction of Cells</p> <ul style="list-style-type: none"> -What are examples of asexual reproduction? -What are the stages of meiosis and how are sex cells produced? -How does fertilization occur in sexual reproduction? 	<ul style="list-style-type: none"> -Explain why mitosis is important -Examine the steps of mitosis -Compare mitosis in plant and animal cells <ul style="list-style-type: none"> -Identify the different types of asexual reproduction -Identify the events that occur during meiosis and fertilization 	<ul style="list-style-type: none"> -Cell cycle -Interphase, Mitosis, Cytokinesis -Chromosome -Replication <ul style="list-style-type: none"> -Binary Fission, Regeneration, Budding -Meiosis -Fertilization/Conception -Egg/Sperm 	<ul style="list-style-type: none"> -Cell Cycle comic book -Diagrams -Interactive media <ul style="list-style-type: none"> -Venn Diagram compare and contrast the types of asexual reproduction 	<ul style="list-style-type: none"> PBS Learning Media: https://ny.pbslearningmedia.org/resource/lsp07.sci.life.st.ru.celldivision/cell-division/#.We-MOWhSzIU 	<p>Catholic Catechism: “Every human life from the moment of conception until death is sacred...” (2319)</p> <p>“From its conception, the child has a right to life” (2322)</p> <p>-Gen 1:28 “God blessed them and said ‘Be fertile and multiply’”</p>

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Nov.	MS-LS1-5 MS-LS3-1 MS-LS3-2 LS1.B LS3.A	<p>Genetics/Heredit</p> <p>-What forms the genetic code?</p> <p>-How does DNA copy itself?</p> <p>-Who is Mendel and what is his role in the history of genetics?</p> <p>-How are traits inherited?</p> <p>-How is probability related to inheritance?</p>	<p>-Explain what forms the genetic code.</p> <p>-Describe how DNA copies itself.</p>	<p>-Nitrogen bases/pairing</p> <p>-DNA Replication</p> <p>-Heredit</p> <p>-Inherited/Acquired traits</p> <p>-Alleles</p> <p>-Genotype/Phenotype</p> <p>-Sexual/Asexual reproduction</p> <p>-Gregor Mendel</p> <p>-Punnett Square</p> <p>-Probability and heredit</p> <p>-Chromosomes & inheritance</p> <p>-Genetic code</p>	<p>-DNA models</p> <p>-Punnett Square activities</p> <p>-Probability chances</p> <p>-Quizzes</p> <p>-Experiments</p> <p>-Teacher observations</p> <p>-Interactive Student Journal</p> <p>-Lab practical/reports</p>	<p>-Textbook</p> <p>-Videos</p> <p>-Interactive websites</p> <p>-HHMI Genetics http://www.hhmi.org/biointeractive/genetics</p>	<p>Donum Vitae:</p> <p>"Instruction on Respect for Human Life in Its Origin and on the Dignity of Procreation"</p> <p>- Brother Gregor Mendel: Austrian monk who discovered the basic principles of heredit through experiments in his garden. ... Known as the "Father of Modern Genetics,"</p>
	MS-LS3-1 LS3.A LS3.B	<p>-How are genetic disorders inherited in humans?</p>	<p>-Identify the major causes of genetic disorders</p> <p>-Explain how genetic disorders are traced, diagnosed, and treated.</p>	<p>-Human Inheritance</p> <p>-Human genetic disorders</p> <p>-Genetic Disorder</p> <p>-Pedigree</p> <p>-Karyotype</p>	<p>-Create a PSA on a genetic disorder</p> <p>-</p>	<p>-Internet</p> <p>- websites</p> <p>-Videos</p> <p>-Textbook</p>	<p>National Directory for Catechesis: Interest in Science & Technology</p>

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	MS-LS3-1 MS-LS4-5 LS4.B	-How can organisms be produced with desired traits?	-Evaluate the importance of advances in genetics -Sequence the steps in making genetically engineered organisms. -Debate the morality of modified organisms.	-Selective Breeding -Inbreeding -Hybridization -Clone -Genetic Engineering -Gene Therapy	-Quizzes -Experiments -Teacher observations -Interactive Student Journal -Lab practical/reports -Worksheets	-Internet - Websites -Videos -Textbook	Catholic Church on Stem cells: http://stemcell.nd.edu/ethics/ Catholic Catechism: "One must hold as licit procedures carried out on human embryos ..." (2275)
Dec..	MS-LS4-1 MS-LS4-2 MS-LS4-3 MS-LS4-4 MS-LS4-6 LS4.A LS4.B LS4.C	Evolution What was Darwin's hypothesis? What is natural selection? How did fossil evidence support Darwin's theory?	-Describe how Darwin's observations helped him develop his hypothesis -Explain how natural selection leads to evolution. -State evidence that supports evolution.	-Evolution/Charles Darwin -Natural Selection -Evidence of Evolution -Adaptation -Homologous Structures -Vestigial Structure	-Summarize the church's teaching on evolution.	-Survival of the fittest lab https://www.hatboro-horsham.org/Page/1054	United States Catholic Catechism for Adults (283) - God created each human soul to share immortal life with him. -Gen 1:21

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			<ul style="list-style-type: none"> -Explain how new species form. -Identify the patterns that describe the rate of evolution 	<ul style="list-style-type: none"> -Speciation -Gradualism -Punctuated equilibrium 	<ul style="list-style-type: none"> -Model speciation by creating a fantasy organism 	<ul style="list-style-type: none"> -Interactive activity: http://www.hmi.org/biointeractive/antole-lizards-example-speciation 	Catholic Catechism: "Scripture presents the work of the Creator symbolically as a succession of six days of divine 'work,' concluded by the 'rest' of the 7th day" (337)
		Classification and Dichotomous Key How do scientists group living things? Why are scientific names used? How you make/read a dichotomous key?	<ul style="list-style-type: none"> -Describe how scientists classified living thing -Explain how similarities are used to classify organisms -Demonstrate how to use a dichotomous key -Explain why the use of scientific names is important 	<ul style="list-style-type: none"> -Kingdoms -Dichotomous Key -Classification System -Binomial Nomenclature 	<ul style="list-style-type: none"> -Create and complete a dichotomous key -Create an informative pamphlet on a genetic disorder for a doctor's office 	<ul style="list-style-type: none"> -Fish Identification http://fergusonfoundation.org/btw-students/fish-identification/ ESP Kit: Meet the Creatures 	<ul style="list-style-type: none"> -Gen 7:1-4 Classification of animals on Noah's ark
Jan.	LS1.B	Bacteria, Protists, Fungi What are the characteristics of bacteria? What are some beneficial uses of bacteria?	<ul style="list-style-type: none"> -Identify the characteristics of bacterial cells -Identify ways bacteria are helpful -Describe the characteristics shared by all protists -Describe the characteristics shared by fungi 	<ul style="list-style-type: none"> -Binary Fission -Shapes of Bacteria -Eukaryotes/Prokaryotes -Nucleus -Flagellum/Cilia -Euglena/Amoeba -Paramecium/Volvox -Mycology 	<ul style="list-style-type: none"> -Diagram on the different shapes of bacteria -Take a nature walk to identify lichen -Make a model 	<ul style="list-style-type: none"> Exploring Fungi https://www.kidsdiscover.com/teachresources/fungi/ 	<ul style="list-style-type: none"> -The Cleaning of a Leper: Mark 1:40-45 on the bacterial infection that causes leprosy -Armand David - Lazarist priest

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		What are protists and what are the types of protists? What are fungi characteristics?		-Saprobe -Spore -Hyphae/Mycelium -Lichen	of different type of protists	Growing Bacteria: https://blogs.cornell.edu/cibt/labs/microbiology/	zoologist and botanist
	MS-LS1-4 MS-LS1-5 LS1.B	Animals What are the differences between vertebrates and invertebrates? How is symmetry related to body structure? How do vertebrates control body temperature?	-Compare and contrast vertebrates and invertebrates -Infer animal body structures based on their symmetry -Compare how vertebrates differ in the way they control body temperature	-Vertebrate/Invertebrate -Exoskeleton/Endoskeleton -Radial Symmetry -Bilateral Symmetry -Endotherm -Ectotherm	-Compare and contrast vertebrates and invertebrates --Formative/ Summative assessments -Lab activities -Create a Venn Diagram comparing and contrasting endotherms and ectotherms	-Animals Study Jams https://www.scholastic.com/teachers/activities/teaching-content/animals-7-studyjams-interactive-science-activities/	St. Francis of Assisi-patron saint of all animals Catholic Catechism: "Animals are entrusted to man's stewardship; he must show them kindness" (2457)
	MS-LS1-3 MS-LS1-3	The Human Body Describe how the body is organized? How does your body stay in balance?	-List the levels of organization of the body. -Describe how body systems work together to maintain homeostasis	-Body organization -System interactions -Homeostasis	-Diagram -Graphic organizer -Formative/ Summative assessments -Lab activities -Projects -Virtual labs	-Internet -Websites -Videos Organization of the human body: https://www.exploringnature.org/grap	Evangelium Vitae (25 March 1995) John Paul II Caritas in Veritate' - Pope Benedict on Challenges to the Practices of Catholic Health

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						https://www.ck12.org/curriculum-maps/level-1/levels-org-anization.pdf	Care Gen-1:27 “God created man in his image” Romans 12:4
	MS-LS1-3	How do you move?	-Describe how the skeletal and muscular systems work together. -Identify the functions of the skeletal system -Explain the role that joints play in the body	-Skeleton -Joints -Ligament -Cartilage -Compact/Spongy bone -Osteoporosis	-Chicken wing dissection -Formative/Summative assessments -Lab activities -Projects	Label the skeletal system http://www.abcya.com/skeletal_system.htm	Catholic Catechism:” The human body shares the dignity of ‘the image of God’” (364)
Feb.	MS-LS1-3	What muscles are in your body? How is movement possible?	-Identify the types of muscles -Explain how skeletal muscles work in pairs	-Voluntary/Involuntary muscle -Skeletal muscle -Tendons -Smooth/Cardiac/Striated muscle	-Make a model of muscle fibers	Muscular System slide show http://studyjams.scholastic.com/studyjams/jams/science/human-body/muscular-system.htm	Pope John Paul II- Theology of the Body
		What are the functions and structures of the skin? How can you have healthy skin?	-Describe the functions and structures of the skin. -Identify habits that can keep skin healthy	-Epidermis/Dermis -Melanin -Pore -Follicle -Cancer	-Diagram a cross section of skin	Kids Health Your Skin http://kidshealth.org/en/kids/skin.html	Matthew 10:30 “Even all the hairs on your head will be counted”

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	MS-LS1-7	<p>Why do you need food? What nutrients does your body need? How can food guidelines help you?</p> <p>What are the functions of the digestive system?</p>	<ul style="list-style-type: none"> -Describe how food provides us with nutrients -Identify how nutrients carry out essential processes -Describe the importance of the MyPlate icon -Describe the functions carried out in the digestive system -Describe the organs and what takes place in each. 	<ul style="list-style-type: none"> -Calorie -Nutrient -Carbohydrates/Fat/Protein -Vitamins/Minerals -Percent Daily Value -Dietary Reference Intakes -Digestion/Absorption -Enzymes -Mechanical/Chemical Digestion/Peristalsis -Digestive System Organs -Bile -Villi 	<ul style="list-style-type: none"> -Make a model of ‘My Plate’ - Enzyme lab with meat tenderizer 	<p>Digestive system lab https://www.stem.org.uk/resources/elibrary/resource/35396/digestive-system-experiment</p>	<p>1 Timothy 5:23</p> <p>1 Corinthians 6:13 “Food for the stomach and the stomach for food”</p> <p>The Food Test-Daniel 1:21</p>
Mar.	MS-LS1-3	<p>What is the role of the cardiovascular system?</p> <p>What is the function of the heart?</p> <p>What steps can I take to protect my heart?</p>	<ul style="list-style-type: none"> -Explain the functions of the cardiovascular system -Describe the function and structure of the heart -Sequence the path blood flows through through system -Explain how blood travels into your body's drainage system. -Identify some diseases of the C.S. and behaviors that can maintain cardiovascular health 	<ul style="list-style-type: none"> -C.S. Organs -Blood vessels -Composition of blood -Cardiovascular Health -Lymph -Atherosclerosis -Heart Attack -Hypertension 	<ul style="list-style-type: none"> -Formative/Summative assessments -Lab activities -Projects -Virtual labs 	<p>Online Test http://studyjams.scholastic.com/studyjams/jams/science/human-body/circulatory-system.htm</p>	<p>The Catechism states: ‘Life and physical health are precious gifts entrusted to us by God. We must take care of them...’ (2288)</p>

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	LS1.C	What is the role of the respiratory system? What happens during gas exchange? What chemicals are in tobacco smoke? How does tobacco smoke affect health?	-Identify the function/structures of the R.S. -Explain how oxygen and carbon dioxide are exchanged in blood and tissues -Explain the effects of smoking on the R.S. -Describe some disorders of the R.S.	-Respiratory System Organs -Cilia/Bronchi/Alveoli -Smoking and your health -Excretory system -Tar/Nicotine -Carbon Monoxide -Nicotine -Addiction -Bronchitis/Emphysema	-Create a PSA on the dangers of smoking -Research the toxic chemicals found in tobacco	Respiratory system lesson: http://www.edlearningforkids.org/health/lesson/respiratory-system/	The Catechism states: "The virtue of temperance disposes us to avoid every kind of excess: the abuse of food, alcohol, tobacco, or medicine." (2290)
		What is the role of the excretory system? How does excretion help maintain your body?	-Identify the structures and functions on the R.S. -Explain how excretion contributes to homeostasis	-Excretion -E.S. Organs/Structures -Urine/Urea	-Create a model of the urinary system	BrainPop: https://www.brainpop.com/games/buidabodyexcretorysystem/	
April		How do pathogens cause disease? What pathogens cause infectious disease and how are they spread? What is the body's first line of defense? What are the inflammatory and immune response? How does HIV affect the body and how does	-Describe the relationship between pathogens and infectious disease. -Identify pathogens that cause infectious disease and how they spread. -Identify barriers that trap and kill most pathogens in which you come in contact with. -Compare and contrast inflammatory and immune response. -Explain how HIV affects the body and what measures to	-Infectious disease -Body's defenses -Infectious disease -Noninfectious disease -Pathogen/Microorganism -Toxin -Phagocyte/Lymphocyte -Antigen -Antibody -Infectious Disease -Virus -HIV/AIDS -Immunity -Vaccination -Noninfectious Disease -Allergies/Asthma	-Research common pathogens -Formative/Summative assessments -Lab activities -Projects -Virtual labs -Interactive lab activities	Teaching kids about germs: https://askabiologist.asu.edu/let-germs-begin/teachers -Internet websites -Videos -Textbook	-Catholic teaching on abstinence -National Conference of Catholic Bishops & U.S. Catholic Conference-A Response to the HIV/AIDS Crisis

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		it spread? How can you become immune?	take to avoid contact with the virus. -Identify how noninfectious diseases affect our bodies.	-Cancer			
	MS-L18 LS1.D	What is the role of the nervous system? How do impulses travel? What is the role of the central and peripheral nervous system? How does your body sense and react to your surroundings? How does drug abuse affect the body?	-State functions of N.S. -Describe the basic structure of a neuron and how an impulse moves across a synapse. -Compare the CNS and the PNS -Explain why healthy senses are needed -Describe the immediate and long term effects of drug abuse on the body	-Stimulus/Response -Organs of NS -Divisions of NS -Neuron/Nerve Impulse -Central Nervous System -Peripheral Nervous System -Sight, Hearing, Smell, Taste, Touch -Drug Abuse -Addiction	-Create a model of a neuron -Create a model of a brain -Response time lab -Create a pamphlet on drug abuse	BrainPop build a body: https://www.brainpop.com/games/buidabodynervoussystem/	-Matthew 6:22-23 The Light of the Body -The Catechism states:” The use of drugs inflicts very grave damage on human health and life”(2291)
		How does the endocrine system function? What controls hormone levels?	-Define what hormones are and how they function -Identify different endocrine glands and the effects of hormones they produce -Describe how a feedback system works in your body	-Gland/Hormone -Negative Feedback	-Venn diagram comparing and contrasting different hormones -Draw a diagram of the endocrine system	Endocrine system interactive quiz: http://kidshealth.org/en/kids/esquiz.html	U.S. Conference of Catholic Bishops:Love and Sexuality -Pope Paul VI “Humanae Vitae” on contraception use

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		<p>What are the functions of the reproductive systems?</p> <p>What happens during the menstrual cycle?</p> <p>What changes occur from infancy to adulthood?</p>	<p>-Describe the structures and functions of the male and female reproductive systems</p> <p>-Sequence the events that occur during the menstrual cycle</p> <p>-Identify the changes that happen in the body in your lifetime</p>	<p>-Fertilization</p> <p>-Egg/Sperm/Zygote</p> <p>-Organs of the R.S.</p> <p>-Menstrual Cycle</p> <p>-Menstruation</p> <p>-Ovulation</p>	<p>-Label a diagram of the male and female reproductive systems</p> <p>-Create a poster of the human life cycle</p> <p>-Formative/ Summative assessments</p> <p>-Lab activities</p> <p>-Projects</p>	<p>Reproductive system labeling: http://www.kscience.co.uk/revision/reproduction/index.htm</p>	<p>-Jeremiah 1:5”Before I formed you in the womb I knew you’</p> <p>-Psalm 139:13-16 ”You formed my inmost being:you knit me in my mother’s womb”</p> <p>-Gen 9:1”Be fertile and multiply and fill the earth”</p>
May	MS-LS1-4 MS-LS1-6	<p>Plants</p> <p>What are the characteristics of plants?</p> <p>How have plants adapted to the many environments on Earth?</p> <p>Why are plants important?</p> <p>How do plants get their food?</p> <p>What are the structures and functions of plant parts?</p>	<p>-Identify the characteristics common to plants</p> <p>-Compare and contrast vascular and nonvascular plants</p> <p>-Explain the structures and functions of roots, stems, and leaves</p> <p>-Describe the male and female parts of a flower</p> <p>-Describe the two stages in a plant's life cycle</p> <p>-Discuss methods of seed</p>	<p>-Vascular / Nonvascular plant</p> <p>-Guard cells</p> <p>-Stomata</p> <p>-Xylem/Phloem</p> <p>-Monocot/Dicot</p> <p>-Pollination</p> <p>-Germination</p> <p>-Photosynthesis</p> <p>-Respiration</p> <p>-Chlorophyll</p> <p>-Tropism</p> <p>-Gas Exchange</p>	<p>-ESP Plant Responses kit</p> <p>-Create a diagram of a plant</p> <p>-Compare and contrast monocots and dicots</p> <p>-Formative/</p>	<p>-Field trip to Tiff Nature Preserve</p> <p>Interactive sites for plants: http://interactivities.weebly.com/plants.html</p> <p>-Textbook</p>	<p>Pope Francis: Laudato Si</p> <p>Gen 1:11-12” Let the earth bring forth vegetation ;every kind of plant that bears seed and every kind of fruit tree on earth”</p>

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		How do plants reproduce?	dispersal in plants -Explain how plants take in water and gases -Explain the processes of photosynthesis and respiration in plants		Summative assessments -Lab activities -Projects	-Interactive labs/media	-Paolo Boccone- Cistercian botanist -Antonio Jose Cavanilles- Botanist priest

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May	MS-LS1-6 MS-LS2-1 MS-LS2-2 MS-LS2-3 MS-LS2-4 LS1.C LS2.A LS2.B LS2.C	<p>Ecology</p> <p>What does an organism get from it's surroundings? How is an ecosystem organized?</p> <p>How do populations change in size?</p> <p>How do living things affect each other?</p> <p>How does primary and secondary succession differ?</p> <p>How does energy and matter flow through an ecosystem?</p> <p>What are the six major</p>	<p>-Identify the needs that must be met by an organism's surroundings -Describe the levels of organization within an ecosystem</p> <p>-Describe how populations change in size -Describe how populations change in size</p> <p>-Explain how adaptations help an organism survive -Identify the three types of symbiosis</p> <p>-Compare and contrast primary and secondary succession. -Name and describe energy roles that organisms play in an ecosystem -Name and describe processes involved in the water cycle and nitrogen cycles -Explain how the carbon and oxygen cycles are related</p> <p>-Name the six major biomes found on Earth -Identify the general</p>	<p>-Organism -Habitat -Biotic/Abiotic Factor - Species/Population/Community/Ecosystem/Biosphere</p> <p>-Birth Rate/Death Rate -Immigration/Emigration -Population Density -Limiting Factor -Carrying Capacity -Niche -Competition -Predation -Predator/Prey -Symbiosis -Mutualism/Commensalism -Parasite/Host -Primary/Secondary Succession -Pioneer Species -Producer/Consumer -Herbivore/Omnivore/Carnivore -Scavenger/Decomposer -Food Chain/Web -Energy Pyramid -Evaporation -Condensation -Precipitation -Nitrogen Fixation -Biome</p>	<p>-Field trip to NY Power Authority -Field trip to Tift Nature Preserve Predator prey simulation http://www.phschool.com/atschool/phbio/active_art/predator_preysimulation/ -Formative/Summative assessments -Lab activities -Projects -Diagram food chains and webs -Create a model of the water cycle -Create a Venn</p>	<p>Population Explosion activity from NSTA: http://ngss.net.org/Resources.aspx?ResourceID=254</p> <p>Kids Do Ecology: http://kids.nc.eas.ucsb.edu/</p> <p>Rat Attack from NOVA online: http://www.pbs.org/wgbh/nova/education/activities/3603_rats.html</p> <p>Saint Kateri Tekakwitha Conservation Center</p> <p>U.S. Bishops, "Global Climate Change" (2001))</p>	<p>National Directory for Catechesis</p> <p>U.S. Conference of Catholic Bishops: Caring for God's Creation</p> <p>U.S. Conference of Catholic Bishops: Environmental Quotes</p> <p>Pope John Paul II, "Peace With All Creation," (1990)</p> <p>Pope Benedict XVI, "If You Want to Cultivate Peace, Protect Creation" (2010),</p> <p>U.S. Conference of Catholic Bishops: Renewing the Earth</p> <p>U.S. Bishops, "Global Climate</p>

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Grade: (6-8)

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	MS- LS2-5	<p>biomes?</p> <p>Environmental Issues How do people use Earth's resources?</p> <p>What are the types of environmental issues? What are natural resources and why are they important?</p> <p>What can people do to use resources wisely?</p>	<p>categories of environmental issues</p> <p>-Distinguish between renewable and nonrenewable resources</p> <p>-Explain why it's important to conserve natural resources</p> <p>-Identify the causes of indoor and outdoor pollution</p> <p>-Explain the importance of the ozone layer and how it has been damaged</p>	<p>-Climate</p> <p>-Desert/ Rain Forest/ Grassland/ Savanna/ Tundra/ Boreal Forest</p> <p>-Natural Resources</p> <p>-Biodiversity</p> <p>-Pollution</p> <p>-Renewable/Nonrenewable resources</p> <p>-Sustainable Use</p> <p>-Ecological Footprint</p> <p>-Conservation</p> <p>-Emissions</p> <p>-Ozone/Ozone Layer</p> <p>-Acid Rain</p> <p>-Radon</p> <p>-CFC's</p>	<p>Diagram comparing and contrasting renewable and renewable resources</p> <p>-Create a diorama of a biome</p> <p>-Calculate your ecological footprint</p> <p>-Create a poster to raise awareness on conserving natural resources</p>	<p>Kids Planet: http://www.kidsplanet.org</p> <p>EPA Student Center: https://www.epa.gov/students</p> <p>Children of the Earth: http://www.childrenoftheearth.org/</p> <p>Zero Footprint youth calculator: http://meettheegreens.pbskids.org/features/carbon-calculator.html</p>	<p>Change: A Plea for Dialogue, Prudence, and the Common Good" (2001).</p> <p>Pope John Paul II, "God Made Man The Steward of Creation" (2001)</p> <p>National Directory for Catechesis</p> <p>-Protect all life and Care for God's creation.</p> <p>Laudato Si Encyclical Letter of Pope Francis</p>

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