

St. Leo School 7th Grade Life Science Curriculum Map

Month	Content	Skills	Next Generation and Louisville Standards
August	<p>Living Things - Develops an understanding of the organism.</p> <p>Classification</p>	<ul style="list-style-type: none"> • Distinguishes between unicellular and multicellular organisms. • Recognizes organisms are organized into tissues, organs, and systems. • Knows classification schemes and how organisms are grouped together on the bases of common characteristics. • Understands that kingdoms are subdivided into phylum etc. • Identifies characteristics and examples from the Five-Kingdom Classification System. 	<p>SC-8-UD-U-4 AE 2.1 – 2.6</p>
September/ October	<p>Cell – Develops an understanding of the cell</p> <p>Cell Structure and Function</p> <p>Cell Processes and Energy</p>	<ul style="list-style-type: none"> • Identifies cells as the basic units of living structures • Identifies structures of generalized plant and animal cells • Identifies the processes that are required for cells to maintain life: <ul style="list-style-type: none"> - food acquisition - growth - movement - response to stimuli - reproduction - respiration - excretion - secretion • Identifies the stages of meiosis and mitosis • Understands photosynthesis 	<p>MS-LS1-1 MS-LS1-2 MS-LS1-3 MS-LS1-7 SC-8-UD-U-1 AE 2.1 – 2.6</p>
November/ December	<p>Genetics – Understands the science of heredity</p>		<p>SC-8-UD-U-2 AE 2.1 – 2.6</p>

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	<p>Heredity</p> <p>Modern Genetics</p>	<ul style="list-style-type: none"> • Knows that the “blueprint” of an organism is passed from cell to cell by duplication of DNA • Predicts single trait expression in off-spring using Mendel’s laws • Explains the genetic bases of r determination of sex in an individual • Describes the functions of DNA, RNA, chromosomes and genes in humans • Understands genetic dominance and recessiveness and identifies common traits in humans which are dominant and recessive • Knows that in sexual reproduction the union of gametes is usually necessary to restore normal gene complement and to produce viable offspring • Knows that genetic principles that apply to families apply to populations as well • Recognizes terms conventionally used in the study of population genetics 	<p>MS-LS1-6 SC-7-UD-U-1 SC-7-UD-U-2 SC-7-UD-U-3 SC-7-UD-U-4 SC-7-UD-U-5 SC-7-UD-U-6 SC-8-UD-U-3 AE 2.1 – 2.6</p>
January	<p>Changes Over Time and Evolution</p>	<ul style="list-style-type: none"> • Knows that over time populations adapt genetically to their environments • Lists some of the effects of introducing new genes into a gene pool. • Knows that a living thing is a product of its heredity and environment • List the predominant theories concerning the origin of life • Identifies the factors of evolutionary process which produces changes in a species 	<p>MS-LS4-1 MS-LS4-6 MS-LS3-1 MS-LS3-2 SC-7-BC-U-1 SC-7-BC-U-2 SC-7-I-U-1 SC-7-I-U-2 AE 2.1 – 2.6</p>

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		<ul style="list-style-type: none"> • Identifies various prehistoric organism such as dinosaurs, brachiopods, trilobites 	
January	Viruses and Bacteria	<ul style="list-style-type: none"> • Identifies characteristics and examples from the Monera Kingdom 	
February	Protists and Fungi	<ul style="list-style-type: none"> • Identifies characteristics and examples from the Protists and Fungi Kingdoms 	AE 2.1 – 2.6
February - March	Animals	<ul style="list-style-type: none"> • Identifies characteristics and examples of: <ul style="list-style-type: none"> • Porifera (sponges) • Cnidaria (hydra, jelly fish) • Platyhelminthes (flatworms) • Nematoda (roundworms) • Annelida (earthworms) • Mollusca (snails, clams, etc.) • Echinodermata (starfish, sea urchins, etc.) • Arthropoda (crayfish, insects, etc.) • Chordata/Verbrata <ul style="list-style-type: none"> - Fish - Amphibians - Reptiles - Birds - Mammals • Contrasts instinct with learned behavior 	AE 2.1 – 2.6

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		<ul style="list-style-type: none"> • Describes ways in which animals communicate • Identifies ways in which animals take care of their young • List ways organisms adapt for survival 	
April - May	Plants - Gymnosperms, Angiosperms, Vascular plants, Seed Plants, Photosynthesis	<ul style="list-style-type: none"> • Identifies characteristics and examples from the Plant Kingdom • Understanding of the life cycle of plants • Plant reproduction • Seed germination • Parts and functions of flower • Contrasts monocots and dicots • Structure and function of vascular plants • Process of photosynthesis. 	AE 2.1 – 2.6

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September/ – December	<p>Develops skills used in gathering, organizing, analyzing and applying information and or concepts</p>	<ul style="list-style-type: none"> • Observes objects and phenomena • Identifies, describes and classifies the properties of objects and phenomena • Uses common materials appropriately for laboratory experiments or demonstrations • Knows the standard units of measurement in both the metric and English units • Measures the size, mass and volume of objects • Recognizes cause and effect relationships • Uses scientific method <ul style="list-style-type: none"> - Makes inferences - Forms hypotheses - Determines procedures - Follows procedures - Control Variables - Collects and records data - Reports data graphically - Interprets data, graphs, tables etc. - Estimates results - Predicts outcomes - Draws conclusions - Makes deductions - Makes generalizations from obtained data - Organizes information in a written form 	<p>Completes and Science Fair project following the scientific method.</p> <p>MS-ETS1-1 MS-ETS1-2 MS-ETS1-3 MS-ETS1-4 AE 2.1 – 2.6</p>