

Grade Level:	6 th , 7 th or 8 th
Class Title:	Middle School Life Science
Subject:	Science
Class Description:	<p>Students in middle school develop understanding of a wide range of topics in Life science that build upon science concepts from elementary school. Students will cover the sections of From Molecules to Organisms: Structures and Processes, Ecosystems: Interactions, Energy, Dynamics, Heredity: Inheritance and Variation of Traits, and Biological Evolution: Unity and Diversity.</p> <p>This class will work toward one or more Next Generation Science Standards. This will be a year-long class, spanning the 2022-2023 school year.</p> <p>The estimated instructional hours for this class are ____per week. State Cedars Code: 03239 This remote class is overseen by Julie Rheinschmidt.</p>
Learning Materials:	<p>List all materials.</p> <p>LS1.A: Structure and Function</p> <ul style="list-style-type: none"> All living things are made up of cells, which is the smallest unit that can be said to be alive. An organism may consist of one single cell (unicellular) or many different numbers and types of cells (multicellular). (MS-LS1-1) Within cells, special structures are responsible for particular functions, and the cell membrane forms the boundary that controls what enters and leaves the cell. (MS-LS1-2) In multicellular organisms, the body is a system of multiple interacting subsystems. These subsystems are groups of cells that work together to form tissues and organs that are specialized for particular body functions. (MS-LS1-3) <p>LS1.B: Growth and Development of Organisms</p> <ul style="list-style-type: none"> Animals engage in characteristic behaviors that increase the odds of reproduction. (MS-LS1-4) Plants reproduce in a variety of ways, sometimes depending on animal behavior and specialized features for reproduction. (MS-LS1-4) Genetic factors as well as local conditions affect the growth of the adult plant. (MS-LS1-5) <p>LS1.D: Information Processing</p> <ul style="list-style-type: none"> Each sense receptor responds to different inputs (electromagnetic, mechanical, chemical), transmitting them as signals that travel along nerve cells to the brain. The signals are then processed in the brain, resulting in immediate behaviors or memories. (MS-LS1-8) <p>ETS1.B: Developing Possible Solutions</p> <ul style="list-style-type: none"> There are systematic processes for evaluating solutions with respect to how well they meet the criteria and constraints of a problem. (<i>secondary to MS-LS2-5</i>) <p>LS3.A: Inheritance of Traits</p> <ul style="list-style-type: none"> Genes are located in the chromosomes of cells, with each chromosome pair containing two variants of each of many distinct genes. Each distinct gene chiefly controls the production of specific proteins, which in turn affects the traits of the individual. Changes (mutations) to genes can result in changes to proteins, which can affect the structures and functions of the organism and thereby change traits. (MS-LS3-1) <p>LS3.B: Variation of Traits</p> <ul style="list-style-type: none"> In sexually reproducing organisms, each parent contributes half of the genes acquired (at random) by the offspring. Individuals have two of each chromosome and hence two alleles of each gene, one acquired from each parent. These versions may be identical or may differ from each other. (MS-LS3-2) <p>LS4.A: Evidence of Common Ancestry and Diversity</p> <ul style="list-style-type: none"> The collection of fossils and their placement in chronological order (e.g., through the location of the sedimentary layers in which they are found or through radioactive dating) is known as the fossil record. It documents the existence, diversity, extinction, and change of many life forms throughout the history of life on Earth. (MS-LS4-1) <p>A team of certificated teachers who are highly qualified in this subject matter has reviewed this WSLP. This is just a sample of learning goals. Other learning goals are available to view by going to OSPI's website. https://www.k12.wa.us/student-success/learning-standards-instructional-materials</p>
Learning Objectives:	
Learning	The student will read for 60 minutes for information on a topic each week

