

Curriculum Map for 7th Grade Life Science

Unit and time frame	Standards/ Learning Topics	Materials and Resources	Vocabulary/ Skills	Assessments
Unit 1: Measurement and Scientific Method <i>3 weeks September</i>	MS- ETS1-1 MS- ETS1-2 MS- ETS1-3 MS- ETS1-4 Introduction Lab Safety Measuring and Equipment Scientific Method (Experimental Design) Graphing Lab Skill	Lab Equipment and Glassware Lab materials specific to unit	triple beam balance observation hypothesis define a problem model collect data variables	Metrics and Measurement Lab Paper Plane Design Lab Oreo Experiment-Graphing Check Quiz Test
Unit 2: From Cells to Organisms <i>8 weeks September-November</i>	MS-LS1-1 MS-LS1-2 MS-LS1-6 MS-LS1-7 Infectious Disease Microscopes Cells Organelles Photosynthesis Cellular Respiration	Lab Equipment and Glassware Lab materials specific to unit Lab-Aids Kit through BOCES	microbe microscope parts field of view cell organelles multicellular/unicellular photosynthesis cellular respiration	Investigation: Disease Outbreak Microscope Skills Lab Organelle Research and Modeling Project Edible Cell Model Lab Quiz Test NYS It's Alive! Lab Investigation

<p>Unit 3: Body Systems</p> <p><i>6 weeks December- January</i></p>	<p>MS-LS1-2 MS-LS1-3 MS-LS1-8</p> <p>Body Systems</p>	<p>Lab Equipment and Glassware</p> <p>Lab materials specific to unit</p> <p>Lab-Aids Kit through BOCES</p>	<p>circulatory respiratory digestive immune nervous excretory organ</p>	<p>Human Body Project</p> <p>Heart Rate Lab</p> <p>Breathing Lab</p> <p>Response and Reaction Lab</p> <p>Life Sized Body Model</p> <p>Digestive Medical Case Study</p> <p>Quiz</p> <p>Test</p>
<p>Unit 4: Reproduction and Genetics</p> <p><i>5 weeks February- March</i></p>	<p>MS-LS3-1 MS-LS3-2 MS-LS1-4 MS-LS1-5</p> <p>Asexual/Sexual Reproduction</p> <p>DNA</p> <p>Mutation</p> <p>Genetics</p> <p>Punnett Squares</p> <p>Genetic Engineering</p>	<p>Lab Equipment and Glassware</p> <p>Lab materials specific to unit</p> <p>Lab-Aids Kit through BOCES</p>	<p>heredity gene mutation heredity allele recessive dominant genotype phenotype heterozygous homozygous reproductive success</p>	<p>DNA Extraction Lab</p> <p>DNA Model Lab</p> <p>Investigation: Gene Combo</p> <p>Lab: Do Genes Determine Everything?</p> <p>Mutation Creature Activity</p> <p>Superhero Genetics Project Case Study (some years)</p> <p>Genetic Engineering Jigsaw</p> <p>Quiz</p> <p>Test</p>

<p>Unit 5: Evolution</p> <p><i>5.5 weeks</i> <i>March- May</i></p>	<p>MS-LS4-1 MS-LS4-2 MS-LS4-3 MS-LS4-4 MS-LS4-6 MS-LS1-5 MS-LS4-5</p> <p>Survival of the fittest</p> <p>Natural Selection</p> <p>Adaptations</p> <p>Evidence for Evolution (fossils) (embryology)</p>	<p>Lab Equipment and Glassware</p> <p>Lab materials specific to unit</p> <p>Lab-Aids Kit through BOCES</p>	<p>antibiotic resistance</p> <p>natural selection</p> <p>variation</p> <p>adaptation</p> <p>fossil</p> <p>homologous</p> <p>embryology</p> <p>extinction</p>	<p>Investigation: The Full Course</p> <p>Modeling: Hiding in the Backgrounds</p> <p>Natural Selection Comic</p> <p>Fossil Evidence Lab</p> <p>Investigation: Whale of a Tale</p> <p>Stations</p> <p>Quiz</p> <p>Test</p>
<p>Unit 6: Ecology</p> <p><i>5.5 weeks</i> <i>May-June</i></p>	<p>MS-LS2-1 MS-LS2-3 MS-LS2-4 MS-LS2-2 MS-LS2-5 MS-LS1-5</p> <p>Ecology</p> <p>Food chains and webs</p> <p>Interactions</p> <p>Introduced Species</p> <p>Symbiosis</p> <p>Cycling of Matter</p>	<p>Lab Equipment and Glassware</p> <p>Lab materials specific to unit</p> <p>Lab-Aids Kit through BOCES</p>	<p>abiotic/biotic</p> <p>ecosystems</p> <p>energy flow</p> <p>competition</p> <p>food web</p> <p>biodiversity</p> <p>introduced species</p> <p>biodiversity</p>	<p>Introduced Species Research</p> <p>Investigation: Data Transects (outside)</p> <p>Food Web Models</p> <p>Owl Pellet Dissection</p> <p>Oh Deer Lab (some years)</p> <p>Quiz</p> <p>Test</p>