

Sterling Middle School Scope and Sequence

Internal Document



SCIENCES



**STERLING
MONTESSORI**
EST. 1997

Block 1: Identity & Character	
Central Concepts	Supporting Concepts
<ul style="list-style-type: none"> ○ Introduction to Science ○ Health ○ Disease 	<ul style="list-style-type: none"> ○ Scientific method ○ Molecular biology (food as energy) ○ Major body systems (human) ○ Wellness, diet and exercise ○ Spread, treatment and prevention of disease
Central Question(s)	NC State Standards Alignment
<p>How can the process of science be used to increase our understanding of life?</p> <p>How do the major body systems interact with one another and the environment to maintain a state of health and wellness?</p>	<ul style="list-style-type: none"> ○ Health & Molecular biology - 8.L.5, ○ Disease, Epidemic & Pandemic - 7.L.2.3, 8.L.1.2 ○ Major body systems - 7.L.1.4

Block 2: Systems & Organizations	
Central Concepts	Supporting Concepts
<ul style="list-style-type: none"> ○ Cell Biology ○ Genetics 	<ul style="list-style-type: none"> ○ Cell structure and function ○ Hierarchical organization of multi-cellular organisms ○ Cellular reproduction ○ Patters of inheritance
Central Question(s)	NC State Standards Alignment
<p>How do the processes, structures and functions of living organisms enable them to survive, reproduce and carry out the basic functions of life?</p>	<ul style="list-style-type: none"> ○ Cell Biology - 7.L.1.1, 7.L.1.2, 7.L.1.3 ○ Genetics - 7.L.2

Block 3: Connections & Associations	
Central Concepts	Supporting Concepts
<ul style="list-style-type: none"> ○ Ecosystems 	<ul style="list-style-type: none"> ○ Populations ○ Predator/Prey relationships ○ Competition, Parasitism, Mutalism ○ Food chains & webs ○ Ecological pyramids ○ Theory of Evolution ○ Plate tectonics ○ Law of Superposition ○ Adaptation ○ Taxonomy (biological classification)
Central Question(s)	NC State Standards Alignment
<p>How do organisms interact and respond to the biotic and abiotic components of their environment?</p>	<ul style="list-style-type: none"> ○ Ecosystems – 8.L.3 ○ Theory of Evolution, Adaptation – 8.L.4

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Block 4: Explorations & Discoveries	
Central Concepts	Supporting Concepts
Central Question(s)	NC State Standards Alignment
<ul style="list-style-type: none">○ Microbiology○ Careers in Science	<ul style="list-style-type: none">○ Bacteria, Virus and Fungi○ Biotechnology
TBD	<ul style="list-style-type: none">○ Bacteria, Virus and Fungi – 8.L.1.1○ Biotechnology – 8.L.2