

**Processes of Life / Living Things Interact with their Environment
Unit Suggested Timeline- Grade 3**

Week #	Core Concepts
1	<p>Living things are made up of non-living matter and are subject to the same scientific laws as non-living things. (SC.G. 1.2.4, SC.G 1.2.5, SC.G. 1.2.6)</p> <p>Living vs. non-living things. Review the Laws of Conservation of Matter and Energy. Energy is transferred to living organisms through the food they eat.</p>
2	<p>Living things need nutrients (food/water) and minerals to survive. Living things are classified as producers, consumers, carnivores, herbivores and omnivores.</p>
3	<p>Organisms grow, die and decay; new organisms are produced. There are stages of deca. There are organisms that help the process. Some organisms act as decomposers.</p>
4	<p>Living things display all of the following characteristics at some stage in their life: cellular organization, energy utilization, homeostasis, growth and development, reproduction and heredity, evolutionary adaptation, response to the environment, interdependence(SC.F.1.2.3, SC.F.2.2.1)</p> <p>Characteristics of plants.</p>
5	<p>Characteristics of animals. Differences between plants and animals. Similarities between plants and animals.</p>
6	<p>Common and distinguishing vertebrate characteristics. Vertebrate groups (fish, amphibians, reptiles, birds, and mammals).</p>
7	<p>All living things have needs required for survival and have developed a variety of adaptations that allow them to meet these needs in their own environment. These needs are: water, food, shelter, stable internal conditions, reproduction (population only) (SC.F.1.2.1, SC.F.1.2.3, SC.F.2.2.1)</p> <p>Organism's characteristics (features) are inherited from genetic ancestors. Compare contrast organisms that lived in the past with those that exist now. Characteristics are influenced by the environment/habitat in which the organism lives.</p>
8	<p>All living things (organisms) have adaptations. Organisms have evolved different adaptations which allow them to compete for limited resources in various ecosystems. The size of a population is affected by both biotic and abiotic factors. Altering any part of an ecosystem will affect the survival of living things within that ecosystem. (SC.G.1.2.1, SC.G.1.2.6, SC.G.1.2.7, SC.G.2.2.1, Sc.G.2.2.2, SC.G.2.2.3)</p> <p>Ecosystems. All organisms (plants/animals) within an ecosystem interact. Organisms found in an ecosystem are interdependent.</p>

9	Terrestrial food chains / webs. Aquatic food chains / webs.
1	Limited resources (oxygen, water, food, space) are competed for with in an ecosystem. Characteristics (adaptations) that allow members of a species to survive and reproduce.
2	Population sizes are dependant on limited resources. Changes within an ecosystem affect the whole system.
3	Nutrients (matter) are recycled in an ecosystem – Nitrogen, Carbon, Phosphorous, and water cycles (SC.G.1.2.3, SC.G.1.2.4, SC.G.1.2.6, SC.D.1.2.3, SC.D.2.2.1) and Solar energy is captured by producers and transferred to consumers and decomposers (SC.G.1.2.5, SC.F.1.2.2, SC.B.2.2.1, SC.B.1.2.1) Photosynthesis.
4	Energy in the form of heat is lost to the atmosphere as it is used by organisms for biological processes. (SC.B.1.2.1) Energy pyramids.
5	Cumulative Review: Relate Matter, Energy/Force & Motion units to Processes of Life Unit. Ex: Matter and Energy is neither created nor destroyed in the ecosystem, etc.
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**Processes of Life / Living Things Interact with their Environment
Unit Suggested Timeline- Grade 4**

Week #	Core Concepts
1 review	Living things are made up of non-living matter and are subject to the same scientific laws as non-living things. (SC.G. 1.2.4, SC.G 1.2.5, SC.G. 1.2.6)
2 review	Living things display all of the following characteristics at some stage in their life: cellular organization, energy utilization, homeostasis, growth and development, reproduction and heredity, evolutionary adaptation, response to the environment, interdependence(SC.F.1.2.3, SC.F.2.2.1)
3 review	All living things (organisms) have adaptations. Organisms have evolved different adaptations which allow them to compete for limited resources in various ecosystems. The size of a population is affected by both biotic and abiotic factors. Altering any part of an ecosystem will affect the survival of living things within that ecosystem. (SC.G.1.2.1, SC.G.1.2.6, SC.G.1.2.7, SC.G.2.2.1, Sc.G.2.2.2, SC.G.2.2.3)
4 review	Structure and function are related. The success of the structure determines if it will be found in future generations (natural selection). (SC.F.1.2.1) Cells are an organism's basic unit of structure and function. (SC.F.1.2.4) Cells as building blocks of life Microscopic Living things are composed of cells Cells carry out the processes of life
5 review	Parts and functions of plant and animal cells Similarly functioning cells form structures (organs)in plants and animals Organs specialized to perform certain function within organism Organ systems
6 review	Mammalian organ system Digestive System
7 review	Respiratory System Circulatory System
8 review	Skeletal System Muscular System
9 review	Nervous System All systems working together Compare / contrast organ systems of cat/dog for review

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**Processes of Life / Living Things Interact with their Environment
Unit Suggested Timeline- Grade 5**

Week #	Core Concepts
1 review	<p>Living things are made up of non-living matter and are subject to the same scientific laws as non-living things. (SC.G. 1.2.4, SC.G 1.2.5, SC.G. 1.2.6)</p> <p>Living things display all of the following characteristics at some stage in their life: cellular organization, energy utilization, homeostasis, growth and development, reproduction and heredity, evolutionary adaptation, response to the environment, interdependence(SC.F.1.2.3, SC.F.2.2.1)</p>
2 review +	<p>All living things have needs required for survival and have developed a variety of adaptations that allow them to meet these needs in their own environment. These needs are: water, food, shelter, stable internal conditions, reproduction (population only) (SC.F.1.2.1, SC.F.1.2.3, SC.F.2.2.1)</p> <p>Single celled organisms Protists interaction with plants and animals</p>
3 review	<p>Solar energy is captured by producers and transferred to consumers and decomposers (SC.G.1.2.5, SC.F.1.2.2, SC.B.2.2.1, SC.B.1.2.1)</p> <p>Nutrients (matter) are recycled in an ecosystem – Nitrogen, Carbon, Phosphorous, and water cycles (SC.G.1.2.3, SC.G.1.2.4, SC.G.1.2.6, SC.D.1.2.3, SC.D.2.2.1)</p>
4 review +	<p>All living things (organisms) have adaptations. Organisms have evolved different adaptations which allow them to compete for limited resources in various ecosystems. The size of a population is affected by both biotic and abiotic factors. Altering any part of an ecosystem will affect the survival of living things within that ecosystem. (SC.G.1.2.1, SC.G.1.2.6, SC.G.1.2.7, SC.G.2.2.1, Sc.G.2.2.2, SC.G.2.2.3)</p> <p>Adaptations to environment may increase survival of species</p>
5	<p>Populations and communities Cause/effect of changes in environment (impact on organism within environment)</p>
6	<p>Limiting factors Conservation of resources</p>
7	<p>Biomes Characteristics</p>
8	<p>Land Biomes Aquatic Biomes</p>
9	<p>Environmentalism Cumulative Review: Tie all units together, emphasize the relationships, etc.</p>

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