

Theme/ Grade Band	K-1	2	3	4
Characteristics of Organisms	Explain how plants need air, water, nutrients, and light.	Explain how plants AND animals need air, water, nutrients, and light. Demonstrate how the functions of plants and animals influence growth and survival (humans: walking, talking, seeing).	Features that improve chances for survival. Organisms have different parts that serve different functions.	Features that improve chances for survival. Organisms have different parts that serve different functions.
	Explain how the behavior of individual organisms is influenced by internal cues (hunger, senses).	Explain how the behavior of individual organisms is influenced by external cues (seasons).	Structures and functions of organisms.	Structures and functions of organisms.
b or cm	b or 6 6 11 k1 cm	b or 6 6 11 2 cm	b or 6 6 11 3 cm	b or 6 6 11 4 cm
Life Cycles of Organisms	Explain how plants and animals have distinct life cycles.			
	Explore how a life cycle includes birth, development and death.			
	What is a life cycle - birth, growth, and death. Offspring are similar to the parents Inherited/learned characteristics	What is a life cycle - birth, growth, and death. Offspring are similar to the parents Inherited/learned characteristics	Plant and Animal life cycles	Plant and Animal life cycles
	Explain that some characteristics of plants and animals are a result of their environment and are not passed on through heredity.			
b lc cm	b lc 6 6 11 k1 cm	b lc 6 6 11 2 cm	b lc 6 6 11 3 cm	b lc 6 6 11 4 cm

Theme/ Grade Band		5	6	7	8																										
Characteristics of Organisms	<p>Cell, tissue, organ, system for plants and animals</p> <p>Cell structure</p> <p>Organisms have similar structures</p>	<p>Cell, tissue, organ, system for plants and animals</p> <p>Cell structure</p> <p>Organisms have similar structures</p>	Extinction and Evolution	Extinction and Evolution	characteristics of organisms																										
	BASIC CELL STRUCTURE	Explore extinction as a result of adaptive characteristics and environmental changes.																													
b	or	cm	b	or	6	6	11	5	cm	b	or	6	6	11	6	cm	b	or	6	6	11	7	cm	b	or	6	6	11	8	cm	
Life Cycles of Organisms	Explain how plants and animals have distinct life cycles.						Life Cycles of Organisms																								
	Explore how a life cycle includes being born, developing into adults, reproduction, and death.																														
	<p>Cellular Reproduction - Mitosis</p> <p>Asexual and Sexual reproduction</p>	<p>Cellular Reproduction - Mitosis</p> <p>Asexual and Sexual reproduction</p>	<p>Meiosis</p> <p>DNA</p> <p>MENDELIAN Genetics</p>	<p>Meiosis</p> <p>DNA</p> <p>MENDELIAN Genetics</p>																											
b	lc	cm	b	lc	6	6	11	5	cm	b	lc	6	6	11	6	cm	b	lc	6	6	11	7	cm	b	lc	6	6	11	8	cm	

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Organisms and their Environments	Identify how plants and animals are supported by distinct environments.		Environmental changes can be positive, negative, neutral Human impact	
	Living and Nonliving things interact seasonal changes impact interaction		Fossils the environment, and extinction	Explore how humans change their environment and the environments of other organisms in good and bad ways.
	Extinction is introduced			
	Explain that when the environment changes, plants and animals will either survive, die or move to new locations.			
b oe cm	b oe 6 6 11 k1 cm	b oe 6 6 11 2 cm	b oe 6 6 11 3 cm	b oe 6 6 11 4 cm

Theme/ Grade Band		5	6	7	8																									
Organisms and their Environments		Food webs, Food chains, Energy Flow	Explain organisms' stimulus/response reactions to their environments.	Transfer of matter and energy Photosynthesis	Transfer of matter and energy Photosynthesis																									
		Symbiotic Relationships	Explore the physical factors of all populations living together that compose an ecosystem.																											
		Distinguish how sunlight is the major source of energy for ecosystems (food web).	Explore how light, water, temperature, and soil composition are all factors to be considered in an ecosystem.																											
	Explore the similarity of organisms																													
Organisms and their environments																														
b	oe	cm	b	oe	6	6	11	5	cm	b	oe	6	6	11	6	cm	b	oe	6	6	11	7	cm	b	oe	6	6	11	8	cm