VSC - Science

Print pages on legal paper, landscape mode.

Grade PK	Grade K	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8
Standard 3.0 Life Science: The students will use scientific skills and processes to explain the dynamic nature of living things, their interactions, and the results from the interactions that occur over time.	**Standard 3.0** Life Science: The students will use scientific skills and processes to explain the dynamic nature of living things, their interactions, and the results from the interactions that occur over time.	**Standard 3.0** Life Science: The students will use scientific skills and processes to explain the dynamic nature of living things, their interactions, and the results from the interactions that occur over time.	**Standard 3.0** Life Science: The students will use scientific skills and processes to explain the dynamic nature of living things, their interactions, and the results from the interactions that occur over time.	**Standard 3.0** Life Science: The students will use scientific skills and processes to explain the dynamic nature of living things, their interactions, and the results from the interactions that occur over time.	**Standard 3.0** Life Science: The students will use scientific skills and processes to explain the dynamic nature of living things, their interactions, and the results from the interactions that occur over time.	**Standard 3.0** Life Science: The students will use scientific skills and processes to explain the dynamic nature of living things, their interactions, and the results from the interactions that occur over time.	**Standard 3.0** Life Science: The students will use scientific skills and processes to explain the dynamic nature of living things, their interactions, and the results from the interactions that occur over time.	**Standard 3.0** Life Science: The students will use scientific skills and processes to explain the dynamic nature of living things, their interactions, and the results from the interactions that occur over time.	**Standard 3.0** Life Science: The students will use scientific skills and processes to explain the dynamic nature of living things, their interactions, and the results from the interactions that occur over time.
A. Diversity of Life	**A**. Diversity of Life	**A**. Diversity of Life	**A**. Diversity of Life	**A**. Diversity of Life	**A**. Diversity of Life	**A**. Diversity of Life	**A**. Diversity of Life	**A**. Diversity of Life	**A**. Diversity of Life
1. Observe a variety of familiar plants and animals to describe how they are alike and how they are different.	**1.** Observe a variety of familiar animals and plants (perhaps on the school grounds, in the neighborhood, and at home) to discover patterns of similarity and difference among them.	**1.** Compare and explain how external features of plants and animals help them survive in different environments.			**1.** Explain how animals and plants can be grouped according to observable features.	**1.** Explain the idea that in any particular environment, some kinds of plants and animals survive well, some less well, and some cannot survive at all.		**1.** Compile evidence to verify the claim of biologists that the features of organisms connect or differentiate them-these include external and internal structures (features) and processes.	
a. Gather information about how some animals are alike in the way they look and in the things they do. ***6. Picture This!, Part A***	**a.** Identify and describe features (observable parts) of animals and plants that make some of them alike in the way they look and the things they do. ***6. Picture This!, Part A*** ***43. Have Seeds, Will Travel***	**a.** Use the senses and magnifying instruments to examine a variety of plants and animals to describe external features and what they do. ***8. The Forest of S.T. Shrew, Enrichment*** ***22. Trees as Habitats, Part A***			**a.** Observe and compile a list of a variety of animals or plants in both familiar and unfamiliar environments. ***64. Looking at Leaves***	**a.** Identify and describe features of some of the plants and animals living in a familiar environment and explain ways that these organisms are well suited to their environment. ***6. Picture This!,***		**a.** Provide examples and explain that organisms sorted into groups share similarities in external structures as well as similarities in internal anatomical structures and processes which can be used to infer the degree of relatedness among organisms • Vascular - non vascular plants	

	64. Looking at Leaves ***65. Bursting Buds*** ***65. Bursting Buds, Enrichment***	***64. Looking at Leaves*** ***65. Bursting Buds*** ***65. Bursting Buds, Enrichment***				***Part B*** ***7. Habitat Pen Pals*** ***10. Charting Diversity*** ***10. Charting Diversity, Enrichment*** ***10. Charting Diversity, Variation*** ***11. Can it Be Real?, Parts A and B*** ***22. Trees as Habitats, Part B*** ***22. Trees as Habitats, Variation*** ***22. Trees as Habitats, Enrichment***		• Closed - open circulatory systems • Asexual - sexual reproduction • Respiration (lungs-gills-skin) • Digestion	
b. Gather information about how some plants are alike in the way they look and in the things they do. ***6. Picture This!, Part A***	**b.** Compare descriptions of the features that make some animals and some plants very different from one another. ***6. Picture This!, Part A***	**b.** Compare similar features in some animals and plants and explain how each of these enables the organism to satisfy basic needs.			**b.** Classify a variety of animals and plants according to their observable features and provide reasons for placing them into different groups. ***64. Looking at Leaves***	**b.** Based on information about the features and behaviors of animals and plants from very different environments describe reasons that they might not survive if their environment changed or if they were moved from one environment to another.		**b.** Identify general distinctions among organisms that support classifying some things as plants, some as animals, and some that do not fit neatly into either group. • Animals consume food • Plants make food	
c. Draw a picture of two animals that look alike (or plants) and of two animals (or plants) that look	**c.** Identify a feature that distinguishes animals that fly (as an example) from animals that cannot and examine a variety of	**c.** Use the information collected to ask and compare answers to questions about			**c.** Given a list of additional animals or plants, decide whether or not they could be placed within the established groups or	**c.** State reasons why certain animals such as whales, salmon, could not survive in the		**c.** Use analogies, models, or drawings to represent that animals and plants have a great variety of body plans and internal structures	

different and respond to questions that are raised by those who observe the pictures.	animals that can fly to discover other similar features they might share.	how an organism's external features contribute to its ability to survive in an environment. ***4. Sounds Around, Part B*** ***4. Sounds Around, Enrichment***			does a new group have to be added. ***6. Picture This!, Part B***	Chesapeake Bay.		that define the way they live, grow, survive, and reproduce.	
d. Identify some of the things that all animals do, such as eat, move around and explain how their features (observable parts) help them do these things.	**d.** Compare ideas about how the features of animals and plants affect what these animals are able to do.	**d.** Classify organisms according to one selected feature, such as body covering, and identify other similarities shared by organisms within each group formed. ***6. Picture This!, Parts A & B*** ***64. Looking at Leaves***			**d.** Describe what classifying tells us about the relatedness among the animals or plants placed within any group.	**d.** Research the kind of environment needed by the Maryland blue crab, the Black-eyed Susan (Maryland's state flower), or another Maryland native organism.			
						e. Explain that the survival of individual organisms and entire populations can be affected by sudden (flood, Tsunami) or slow (global warming, air pollution) changes in the environment.			
	2. Gather information and direct evidence that humans have different external								

	features, such as size, shape, etc., but that they are more like one another than like other animals.								
	a. Organize data collected and draw conclusions about similarities and differences among humans.								
	b. Explain ways in which humans are more like one another than like other animals.								
	c. Describe similarities in what both humans and other animals are able to do because they possess certain external features.								
B. Cells	**B**. Cells	**B**. Cells	**B**. Cells	**B**. Cells	**B**. Cells	**B**. Cells	**B**. Cells	**B**. Cells	**B**. Cells
		1. Describe evidence from investigations that living things are made of parts too small to be seen with the unaided eye.		**1.** Explore the world of minute living things to describe what they look like, how they live, and how they interact with their environment.		**1.** Provide evidence from observations and investigations to support the idea that some organisms consist of a single cell.		**1.** Gather and organize data to defend or argue the proposition that all living things are cellular (composed of cells) and that cells carry out the basic life functions.	
		a. Use magnifying instruments to observe parts of a variety of living things, such as leaves, seeds, insects, worms, etc. to describe (drawing or text) parts seen with		**a.** Use magnifying instruments to observe and describe using drawings or text (oral or written) minute organisms, such as brine shrimp,		**a.** Use microscopes, other magnifying instruments, or video technology to observe, describe, and compare single celled organisms, such as amoeba,		**a.** Use microscopes or other magnifying instruments to observe, describe, and compare the cellular composition of different body tissues and organs in a variety of organisms (animals and plants).	

		the magnifier.		algae, aphids, etc. that are found in different environments.		euglena, paramecium, etc.			
		b. Use information gathered from observations to compare the descriptions (drawings or text) of the different parts seen.		**b.** Describe any observable activity displayed by these organisms.		**b.** Describe the observable behaviors of single celled organisms		**b.** Based on data from readings and designed investigations, cite evidence to illustrate that the life functions of multicellular organisms (plant and animal) are carried out within complex systems of different tissues, organs and cells. • Extracting energy from food • Getting rid of wastes • Making raw materials	
		c. Describe some of the ideas or questions that might result from examining organisms more closely.		**c.** Provide reasons that support the conclusion that these organisms are alive.		**c.** Cite evidence from data gathered that supports the idea that most single celled organisms have needs similar to those of multicellular organisms.		**c.** Based on research and examples from video technology explain that the repeated division of cells enables organisms to grow and make repairs.	
				d. Use information gathered about these minute organisms to compare mechanisms they have to satisfy their basic needs to				**d.** Collect data from investigations using single celled organisms, such as yeast or algae to explain that a single cell carries out all the basic life functions of a multicellular organism. • Reproducing	

				those used by larger organisms.				• Extracting energy from food • Getting rid of wastes	
								e. Based on data compiled from a number of lessons completed, take and defend a position on the statement "The way in which cells function is the same in all organisms."	
		2. Provide evidence that all organisms are made of parts that help them carry out the basic functions of life.				**2.** Investigate and provide evidence that living things are made mostly of cells that can be seen and studied only through a microscope.		**2.** Recognize and provide examples that human beings, like other organisms have complex body systems of cells, tissues and organs that interact to support an organism's growth and survival.	
		a. Gather information and direct evidence that humans and other animals have different body parts used to seek, find, and take in food.				**a.** Use microscopes and/or other video technology to investigate and describe that some organisms are composed of a collection of similar cells working together to meet basic needs of a "colony" of cells.		**a.** Describe and explain that the complex set of systems found in multicellular organisms are made up of different kinds of tissues and organs which are themselves composed of differentiated cells.	
		b. Investigate and identify parts of the body that alert humans and other animals to danger and help				**b.** Use microscopes and pictures to investigate, describe with drawings, and		**b.** Select several body systems and explain the role of cells, tissues and organs that effectively carry out a vital function for the	

		them to fight, hide or get out of danger.				compare the cells in a variety of multicellular organisms, such as cells in elodea and onions; muscle cells, nerve cells, skin cells, etc in animals.		organism, such as • Obtaining food and providing energy (digestive, circulatory, respiratory) • Defense (nervous, endocrine, circulatory, muscular, skeletal, immune) • Reproduction (reproductive, endocrine, circulatory) • Waste removal (excretory, respiratory, circulatory) • Breathing (respiratory, circulatory)	
		c. Describe some parts of plants and describe what they do for the plant.				**c.** Select information gathered from readings that supports the need for specialized (different types) cells in multicellular organisms.		**c.** Develop a response that explains the meaning of the statement, "The specialization of cells serves the operation of the organs, and the organs serve the needs of the cells."	
		d. Respond, giving reasons to support the response, to the statement "All living things are made of parts."						**d.** Investigate ways in which the various organs and tissues function to serve the needs of cells for food, air, and waste removal.	

C. Genetics	**C**. Genetics	**C**. Genetics	**C**. Genetics	**C**. Genetics	**C**. Genetics	**C**. Genetics	**C**. Genetics	**C**. Genetics	**C**. Genetics
1. Observe, describe and compare different kinds of animals and their offspring	**1.** Observe, describe and compare the life cycles of different kinds of animals and plants.	**1.** Explain that there are differences among individuals in any population.	**1.** Explain that there are identifiable stages in the life cycles (growth, reproduction, and death) of plants and animals.		**1.** Explain that in order for offspring to resemble their parents, there must be a reliable way to transfer information from one generation to the next.			**1.** Explain the ways that genetic information is passed from parent to offspring in different organisms.	
a. Recognize and describe the similarities and differences among familiar animals and their offspring.	**a.** Identify and draw pictures that show what an animal (egg to frog) and a plant (seed to tree) looks like at each stage of its life cycle. ***79. Tree Lifecycle; Variation*** ***79. Tree Lifecycle; Enrichment***	**a.** Examine a variety of populations of plants and animals (including humans), to identify ways that individual members of that population are different from one another.	**a.** Investigate and describe that seeds change and grow into plants. ***41. How Plants Grow; Variation*** ***41. How Plants Grow; Enrichment*** ***43. Have Seeds, Will Travel; Enrichment*** ***79. Tree Lifecycle; Variation***		**a.** Describe traits found in animals and plants, such as eye color, height, leaf shape, seed type that are passed from one generation to another			**a.** Investigate and explain that in some kinds of organisms, all the genes come from a single parent, whereas in organisms that have sexes, typically half of the genes come from each parent.	
b. Describe how offspring are very much, but not exactly, like their parents and like one another.	**b.** Describe and compare the changes that occur in the life cycle of two different animals, such as a frog and a puppy and two different plants, such as a rosebush and a maple tree.	**b.** Make a list of possible advantages and disadvantages of differences of individuals in a population of organisms.	**b.** Compare and describe the changes that occur in humans during their life cycle (birth, newborn, child, adolescent, adult, elder).		**b.** Explain that some likenesses between parents and offspring are inherited (such as eye color in humans, nest building in birds, or flower color in plants) and other likenesses are learned (such as language in humans or songs in birds).			**b.** Investigate and explain that in sexual reproduction, a single specialized cell from a female (egg) merges with a specialized cell from a male (sperm) and the fertilized egg now has genetic information from each parent, that multiplies to form the complete organism composed of about a trillion cells, each of which contains the same genetic information.	
	c. Identify and describe the changes		**c.** Given pictures of stages in the		**c.** Raise questions based on observations			**c.** Investigate organisms that	

	that occur in humans as they develop. • Size • Weight • Appearance of different parts		life cycle of a plant or an animal, determine the sequence of the stages in the life cycle. ***79. Tree Lifecycle; Variation***		of a variety of parent and offspring likenesses and differences, such as "Why don't all the puppies have the same traits, such as eye color and size as their parents?" or "How do traits get transferred?"			reproduce asexually to identify what traits they receive from the parent.	
			d. Provide examples, using observations and information from readings that life cycles differ from species to species. ***79. Tree Lifecycle; Variation*** ***79. Tree Lifecycle; Enrichment***		**d.** Develop a reasonable explanation to support the idea that information is passed from parent to offspring.			**d.** Use information about how the transfer of traits from parent or parents to offspring occurs, to explain how selective breeding for particular traits has resulted in new varieties of cultivated plants and domestic animals.	
								e. Identify evidence to support the idea that there is greater variation among offspring of organisms that reproduce sexually than among those that reproduce asexually.	
		2. Recognize that all living things have offspring, usually with two parents involved.							
		a. Examine a variety of living things and their offspring and describe what							

		each parent and offspring looks like.							
		b. Identify similarities and differences among the offspring and between the offspring and each parent.							
		c. Based on observations, construct an appropriate response to the question "Are parents and offspring more similar than they are different?"							
D. Evolution	**D**. Evolution	**D**. Evolution	**D**. Evolution	**D**. Evolution	**D**. Evolution	**D**. Evolution	**D**. Evolution	**D**. Evolution	**D**. Evolution
	1. Recognize that living things are found almost everywhere in the world and that there are somewhat different kinds of living things in different places.		**1.** Observe and describe examples of variation (differences) among individuals of one kind within a population.		**1.** Explain that individuals of the same kind differ in their characteristics, and sometimes the differences give individuals an advantage in surviving and reproducing.		**1.** Explain that in any particular environment, the growth and survival of organisms and species depend on the physical conditions.		**1.** Recognize and describe that evolutionary change in species over time occurs as a result of natural variation in organisms and environmental changes.
	a. Observe, describe, and give examples and describe the many kinds of living things found in different places in Maryland.		**a.** Observe and describe individuals in familiar animal populations, such as cats or dogs, to identify how they look alike and how they are different.		**a.** Describe ways in which organisms in one habitat differ from those in another habitat and consider how these differences help them survive and reproduce.		**a.** Cite examples and describe that small differences between parents and offspring can accumulate (through selective breeding) in successive generations so that descendants		**a.** Recognize and describe that gradual (climatic) and sudden (floods and fires) changes in environmental conditions affect the survival of organisms and populations.

							are very different from their ancestors.		
	b. Using pictures, films and illustrated texts identify, describe and compare living things found in other states such as Texas and Alaska to those found in Maryland.		**b.** Examine pictures of organisms that lived long ago, such as dinosaurs, and describe how they resemble organisms that are alive today.		**b.** Explain that the characteristics of an organism affect its ability to survive and reproduce.		**b.** Explain that in all environments-freshwater, marine, forest, desert, grassland, mountain, and others-organisms with similar needs may compete with one another for resources, including food, space, water, air, and shelter. ***27. Every Tree for Itself*** ***27. Every Tree for Itself; Variation*** ***27. Every Tree for Itself; Enrichment***		**b.** Recognize that adaptations may include variations in structures, behaviors, or physiology, such as spiny leaves on a cactus, birdcalls, and antibiotic resistant bacteria. ***26. Dynamic Duos*** ***26. Dynamic Duos; Enrichment***
	c. Explain that the external features of plants and animals affect how well they thrive in different kinds of places.		**c.** Recognize that some kinds of organisms have completely disappeared.		**c.** Examine individuals in a group of the same kind of animals or plants to identify differences in characteristics, such as hearing ability in rabbits or keenness of vision in hawks that might give those individuals an advantage in surviving and reproducing.		**c.** Explain that in any particular environment individual organisms with certain traits are more likely than others to survive and have offspring.		**c.** Recognize and describe that adaptation and speciation involve the selection of natural variations in a population.
					d. Examine and compare fossils to one		**d.** Explain, with examples, ways		**d.** Recognize and describe that

					another and to living organisms as evidence that some individuals survive and reproduce.		that people control some characteristics of plants and animals they raise by selective breeding.		extinction occurs when the adaptive traits of a population do not support its survival.
							e. Describe ways in which changes in environmental conditions can affect the survival of individual organisms and entire species. ***27. Every Tree for Itself*** ***27. Every Tree for Itself; Variation*** ***27. Every Tree for Itself; Enrichment***		**e.** Recognize that evolution accounts for the diversity of species.
							f. Describe how sediments of sand and smaller particles (sometimes containing the remains of organisms) are gradually buried and are cemented together by dissolved minerals to form solid rock; and describe that such fossils provide evidence for the long		

							history of changing life forms whose remains are found in the rocks.		
							g. Explain that the more recently deposited rock layers are likely to contain fossils resembling existing species.		
E. Flow of Matter and Energy	**E**. Flow of Matter and Energy	**E**. Flow of Matter and Energy	**E**. Flow of Matter and Energy	**E**. Flow of Matter and Energy	**E**. Flow of Matter and Energy	**E**. Flow of Matter and Energy	**E**. Flow of Matter and Energy	**E**. Flow of Matter and Energy	**E**. Flow of Matter and Energy
	1. Develop an awareness of the relationship of features of living things and their ability to satisfy basic needs that support their growth and survival.	**1.** Describe some of the ways in which animals depend on plants and on each other.		**1.** Recognize that materials continue to exist even though they change from one form to another.	**1.** Recognize food as the source of materials that all living things need to grow and survive.	**1.** Recognize that some source of energy is needed for all organisms to grow and survive.		**1.** Explain that the transfer and transformation of matter and energy links organisms to one another and to their physical setting.	
	a. Make observations of the features and behaviors of many different kinds of animals within an environment to identify and begin building a list of some of the basic needs these organisms share, such as water, air, etc. ***46. Schoolyard Safari*** ***46. Schoolyard Safari; Enrichment*** ***47. Are Vacant Lots Vacant?***	**a.** Examine organisms in a wide variety of environments to gather information on how animals satisfy their need for food. • Some animals eat only plants • Some animals eat only other animals • Some animals		**a.** Identify and compile a list of materials that can be recycled.	**a.** Classify the things that people and animals take into their bodies as food or not food.	**a.** Identify the sun as the primary source of energy for all living organisms. • Plants use sunlight to make food • Plants and animals use food for energy and growth ***28. Air Plants***		**a.** Cite evidence from research and observations that food provides molecules that serve as fuel and building materials for all organisms.	

		eat both plants and other animals ***24. Nature's Recyclers***				***41. How Plants Grow*** ***42. Sunlight and Shades of Green*** ***42. Sunlight and Shades of Green; Enrichment*** ***63. Tree Factory***			
	b. Describe ways that people and other animals manage to bring the things they need from their environment into their bodies.			**b.** Identify what happens to materials when they are recycled.	**b.** Describe what happens to food in plants and animals. • Contributes to growth • Supports repair • Provides energy • Is stored for future use • Is eliminated	**b.** Cite evidence from observations and research that some insects and various other organisms depend on dead plant and animal material for food. ***23. The Fallen Log*** ***24. Nature's Recyclers***		**b.** Cite evidence from research and observations that organisms that eat plants or animals break down what they have consumed (food) to produce the materials and energy they need to survive or store for later use. ***23. The Fallen Log*** ***24. Nature's Recyclers***	
	c. Make observations of the features of many different kinds of plants within an environment to identify and begin building a list of some of the basic needs these organisms share, such as water, light, etc.			**c.** Observe and record the sequence of changes that occur to plants and animals that die and decay.	**c.** Identify the things that are essential for plants to grow and survive. ***27. Every Tree for Itself*** ***41. How Plants Grow*** ***42. Sunlight & Shades of Green*** ***42. Sunlight & Shades of Green; Enrichment*** ***63. Tree Factory***	**c.** Provide examples that justify the statement "Most animals' food can be traced back to plants." ***45. Web of Life*** ***45. Web of Life; Enrichment***		**c.** Investigate and describe the processes that enable plants to use the energy from light to make sugars (food) from carbon dioxide and water. ***42. Sunlight & Shades of Green*** ***42. Sunlight & Shades of Green; Enrichment***	

	41. How Plants Grow								
	d. Describe the way that most plants manage to bring water from the environment into the plant. ***62. To Be a Tree*** ***63. Tree Factory; Variation***			**d.** Ask and develop possible answers to questions about what happens to the materials that living things are made of when they die.				**d.** Provide evidence from research to explain how plants can use the food they make immediately for fuel or stored for later use.	
								e. Ask and seek answers to questions about the fact that transfer of matter between organisms continues indefinitely because organisms are decomposed after death to return food materials to the environment. ***23. The Fallen Log***	
								f. Provide evidence that supports the premise "In the flow of matter system the total amount of matter remains constant even though its form and location change." • Carbon cycle • Nitrogen (cycle) • Food chains and food webs ***45. Web of Life*** ***45. Web of Life;***	

								Enrichment ***84. The Global Climate; Enrichment***	
F. Ecology	**F**. Ecology	**F**. Ecology	**F**. Ecology	**F**. Ecology	**F**. Ecology	**F**. Ecology	**F**. Ecology	**F**. Ecology	**F**. Ecology
	1. Investigate a variety of familiar places where plants and animals live to describe the place and the living things found there.		**1.** Explain that organisms can grow and survive in many very different habitats.		**1.** Explain ways that individuals and groups of organisms interact with each other and their environment.		**1.** Give reasons supporting the fact that the number of organisms an environment can support depends on the physical conditions and resources available.		
	a. Describe observations using drawings, oral or written text of the place and some of the living things found there. ***46. Schoolyard Safari*** ***46. Schoolyard Safari; Enrichment*** ***47. Are Vacant Lots Vacant?***		**a.** Investigate a variety of familiar and unfamiliar habitats and describe how animals and plants found there maintain their lives and survive to reproduce.		**a.** Identify and describe the interactions of organisms present in a habitat. • Competition for space, food, and water • Beneficial interactions: nesting, pollination, seed dispersal, oysters filtering as in the Chesapeake Bay, etc. • Roles within food chains and webs: scavengers, decomposers, producers, consumers. ***22. Trees as Habitats*** ***23. The Fallen Log***		**a.** Explain that populations increase or decrease relative to the availability of resources and the conditions of the environment. 27. Every Tree for Itself ***80. Nothing Succeeds Like succession; Parts A, B, C*** ***88. Life on the Edge; Part A***		

					27. Every Tree for Itself ***45. Web of Life*** ***45. Web of Life; Enrichment*** ***47. Are Vacant Lots Vacant?*** ***62. To Be a Tree*** ***77. Trees in Trouble, Part B*** ***80. Nothing Succeeds Like succession; Parts A, B, C*** ***88. Life on the Edge***				
	b. Based on the observations collected at each place compare the plants and animals found there. • Location • Activity • Movement • Features ***46. Schoolyard Safari***		**b.** Explain that organisms live in habitats that provide their basic needs. • Food • Water • Air • Shelter ***46. Schoolyard Safari*** ***46. Schoolyard Safari; Enrichment*** ***47. Are Vacant Lots Vacant?***		**b.** Explain that changes in an organism's habitat are sometimes beneficial to it and sometimes harmful. ***80. Nothing Succeeds Like succession; Parts A, B, C*** ***88. Life on the Edge; Part A***		**b.** Identify and describe factors that could limit populations within any environment, such as disease, introduction of a nonnative species, depletion of resources, etc. 12. Invasive ***Species*** ***77. Trees in Trouble; Part B*** ***88. Life on the Edge; Part A***		

	c. Describe ways that animals and plants found in each place interact with each other and with their environment. ***46. Schoolyard Safari*** ***63. Tree Factory; Variation***		***c. Explain that animals and plants sometimes cause changes in their environments.*** ***30. Three Cheers for Trees*** ***30. Three Cheers for Trees; Variation*** ***30. Three Cheers for Tress; Enrichment***				**c.** Explain that within any environment organisms with similar needs may compete with one another for resources. ***27. Every Tree for Itself*** ***77. Trees in Trouble; Part B*** ***88. Life on the Edge; Part A***		
							d. Cite examples to illustrate that competition is reduced when organisms use different sets of resources, such as birds in a forest eat different kinds and sizes of seeds.		

*Note: Highlighting identifies proposed assessment limits. All highlighted Indicators will be tested on the **Grades 5 and 8** MSA. The highlighted Objectives under each highlighted Indicator identify the limit to which MSA items can be written. Although all content standards are tested on MSA, not all Indicators and Objectives are tested. Objectives that are not highlighted will not be tested on MSA, however are an integral part of Instruction.*

Date: 12/30/2005