Everest Academy

Scope & Sequence
Grade: 7 Subject: Science

Revised 3/30/2018

1st Quarter (44 Days)			
Resources: Mcgraw Hill Math course 2; Springboard			
Week	**Unit/Lesson**	**Learning Objectives**	**Reporting Categories (TEKS SEs)**
Week 1	**Scientific investigation and reasoning**	TSW plan and implement comparative and descriptive investigations by making observations, asking well-defined questions, and using appropriate equipment and technology	7.1,7.2,7.3,7.4
Week 2	**Matter and Energy**	TSW recognize that radiant energy from the Sun is transformed into chemical energy through the process of photosynthesis	7.5(A)
Week 3	**Matter and Energy**	TSW demonstrate and explain the cycling of matter within living systems such as in the decay of biomass in a compost bin	7.5(B)
Week 4	**Matter and Energy**	TSW diagram the flow of energy through living systems, including food chains, food webs, and energy pyramids	7.5 (C)
Week 5	**Matter and Energy**	TSW identify that organic compounds contain carbon and other elements such as hydrogen, oxygen, phosphorus, nitrogen, or sulfur	7.6 (A)
Week 6	**Matter and Energy**	TSW distinguish between physical and chemical changes in matter in the digestive system	7.6(B)
Week 7	**Matter and Energy**	TSW recognize how large molecules are broken down into smaller molecules such as carbohydrates can be broken down into sugars	7.6(C)
Week 8	**Review and Assessment**	**1st Benchmark**	Review and assessment
Week 9	**Force, Motion and Energy**	TSW contrast situations where work is done with different amounts of force to situations where no work is done such as moving a box with a ramp and without a ramp, or standing still	7.7(A)
Week 10	**Force, Motion and Energy**	TSW illustrate the transformation of energy within an organism such as the transfer from chemical energy to heat and thermal energy in digestion	7.7(B)

2nd Quarter (43 Days)			
Resources: Mcgraw Hill Math course 2; Springboard			
Week	**Unit/Lesson**	**Learning Objectives**	**Reporting Categories (TEKS SEs)**
Week 1	**Force, Motion and Energy**	TSW demonstrate and illustrate forces that affect motion in everyday life such as emergence of seedlings, turgor pressure, and geotropism	7.7(C)

2nd Quarter (43 Days)			
Resources: Mcgraw Hill Math course 2; Springboard			
Week	**Unit/Lesson**	**Learning Objectives**	**Reporting Categories (TEKS SEs)**
Week 2	**Earth and Space**	TSW predict and describe how different types of catastrophic events impact ecosystems such as floods, hurricanes, or tornadoes	7.8(A)
Week 3	**Earth and Space**	TSW analyze the effects of weathering, erosion, and deposition on the environment in ecoregions of Texas	7.8(B)
Week 4	**Review and Assessment**	**IOWA/ITBS Complete Battery Gr 3-8**	Review and Assessment
Week 5	**Earth and Space**	TSW model the effects of human activity on groundwater and surface water in a watershed	7.8(C)
Week 6	**Earth and Space**	TSW analyze the characteristics of objects in our solar system that allow life to exist such as the proximity of the Sun, presence of water, and composition of the atmosphere	7.9(A)
Week 7	**Earth and Space**	TSW identify the accommodations, considering the characteristics of our solar system, that enabled manned space exploration	7.9 (B)
Week 8	**Review and Assessment**	**2nd Benchmark**	Review and Assessment
Week 9	**Organisms and Environments**	TSW observe and describe how different environments, including microhabitats in schoolyards and biomes, support different varieties of organisms	7.10(A)

3rd Quarter (43 Days)			
Resources: Mcgraw Hill Math course 2; Springboard			
Week	**Unit/Lesson**	**Learning Objectives**	**Reporting Categories (TEKS SEs)**
Week 1	**Organisms and Environments**	TSW describe how biodiversity contributes to the sustainability of an ecosystem	7.10(B)
Week 2	**Organisms and Environments**	TSW observe, record, and describe the role of ecological succession such as in a microhabitat of a garden with weeds	7.10(C)
Week 3	**Organisms and Environments**	TSW examine organisms or their structures such as insects or leaves and use dichotomous keys for identification	7.11(A)

3rd Quarter (43 Days)			
Resources: Mcgraw Hill Math course 2; Springboard			
Week	**Unit/Lesson**	**Learning Objectives**	**Reporting Categories (TEKS SEs)**
Week 4	**Organisms and Environments**	TSW explain variation within a population or species by comparing external features, behaviors, or physiology of organisms that enhance their survival such as migration, hibernation, or storage of food in a bulb	7.11(B)
Week 5	**Organisms and Environments**	TSW identify some changes in genetic traits that have occurred over several generations through natural selection and selective breeding such as the Galapagos Medium Ground Finch (Geospiza fortis) or domestic animals	7.11(C)
Week 6	**Organisms and Environments**	TSW investigate and explain how internal structures of organisms have adaptations that allow specific functions such as gills in fish, hollow bones in birds, or xylem in plants	7.12(A)
Week 7	**Organisms and Environments**	TSW identify the main functions of the systems of the human organism, including the circulatory, respiratory, skeletal, muscular, digestive, excretory, reproductive, integumentary, nervous, and endocrine systems	7.12(B)
Week 8	**Review and Assessment**	**3rd Benchmark**	Review and assessment
Week 9	**Organisms and Environments**	TSW recognize levels of organization in plants and animals, including cells, tissues, organs, organ systems, and organisms	7.12(C)

4th Quarter (46 Days)			
Resources: Mcgraw Hill Math course 2; Springboard			
Week	**Unit/Lesson**	**Learning Objectives**	**Reporting Categories (TEKS SEs)**
Week 1	**Organisms and Environments**	TSW differentiate between structure and function in plant and animal cell organelles, including cell membrane, cell wall, nucleus, cytoplasm, mitochondrion, chloroplast, and vacuole	7.12(D)
Week 2	**Organisms and Environments**	TSW compare the functions of a cell to the functions of organisms such as waste removal	7.12(E)
Week 3	**Organisms and Environments**	TSW recognize that according to cell theory all organisms are composed of cells and cells carry on similar functions such as extracting energy from food to sustain life	7.12(F)
Week 4	**Review and assessment**	**April 9: STAAR- Writing**	Review and assessment

4th Quarter (46 Days)			
Resources: **Mcgraw Hill Math course 2; Springboard**			
Week	**Unit/Lesson**	**Learning Objectives**	**Reporting Categories (TEKS SEs)**
Week 5	**Organisms and Environments**	TSW investigate how organisms respond to external stimuli found in the environment such as phototropism and fight or flight and describe and relate responses in organisms that may result from internal stimuli such as wilting in plants and fever or vomiting in animals that allow them to maintain balance	7.13(A),7.13(B)
Week 6	**Organisms and Environments**	TSW define heredity as the passage of genetic instructions from one generation to the next generation and recognize that inherited traits of individuals are governed in the genetic material found in the genes within chromosomes in the nucleus	7.14(A),7.14(B)
Week 7	**Organisms and Environments**	TSW compare the results of uniform or diverse offspring from sexual reproduction or asexual reproduction	7.14(C)
Week 8	**Review and assessment**	**May 13: STAAR- Math May 14: STAAR- Reading**	Review and assessment
Week 9	**Review and assessment**	**Final Benchmark**	Review and assessment
Week 10	**Review**	Dissection & Review	Review