7TH Grade Science Scope & Sequence

Grading Period	Throughout the School Year	First Grading Period	Second Grading Period	Third Grading Period	Fourth Grading Period
Focus TEKS (R) Readiness (S) Supporting (P) Process	7.1 A, B 7.2 A, B, C, D, E 7.3 A, B, C, D 7.4 A, B	7.1 A 7.12 C, D, E, F 7.5 A 7.7 C	7.12 B, C ~~7.6 A~~, B, ~~C~~ 7.7 B 7.13 A, B	7.14 A, B, C 7. 11 A, B, C 7.5 A, C 7.10 A, B, C	7.9 A, B 7.8 A, B, C
Unit(S)	• Homeostasis	• Scientific Inquiry • Chemistry of Life • Characteristics of Life & Cells • Cell Processes	• Body Systems	• Types of Reproduction • DNA & Cell Cycle • Genetics	• Natural Selection and Dichotomous Keys • Ecology • Earth Systems • Life in Space

Key Topics or Concepts	• Demonstrate safe practices during laboratory and field investigations.
	• Design investigations.
	• Collect & record data.
	• Summarize data in writing, and/or using tables and graphs.
	• Develop valid conclusions based on evidence.
		• Plan and implement scientific investigations.
		• Demonstrate safe practices during lab and field investigations.
		• Investigate how organisms respond to stimuli
		• Describe how organisms maintain homeostasis
			• Identify the main functions of the body systems
			• Identify the levels of structural organization in plants and animals
			• Distinguish between physical and chemical changes
			• Illustrate the transfer of energy in an organism
			  • Compare the functions of
				• Define heredity
				• Compare and contrast the offspring from sexual and asexual reproduction
				• Investigate and explain how structures in organisms have adapted for specific functions.
				• Explain how genes control the traits of an organism.
					• Diagram the flow of energy through living systems
					  • Demonstrate and illustrate forces that affect motion in plant systems
					• Predict and describe how catastrophic events impact ecosystems
					• Analyze how weathering, erosion, and

	• Analyze and use models to represent aspects of the natural world.	through response to internal stimuli
		• Differentiate between the structure and function of cell organelles.
		• Describe photosynthesis
			organelles to the functions of organ systems	• Use a dichotomous key to identify organisms.
				• Explain how variation within a species enhances a populations survival.
				• Identify how natural selection and selective breeding can cause changes in the genetic traits.
					deposition shape the surface features of Texas
					• Model the effects of humans on ground and surface water
					  • Describe how different environments support different communities of organisms
					  • Explain the relationship between biodiversity and sustainability
					  • Observe, record, and describe ecological succession
					  • Analyze characteristics of the solar system that allow life to exist
					  • Identify accommodation s that maintain life in space