EIGHTH GRADE - SCIENCE

SUGGESTED TIME FRAME – 2016-2017

Unit 1: Properties of Matter	**3 weeks**	**August 8 – August 26**
This brief unit focuses on the structure of atoms, the atomic structure of elements and ions, and the basic use of the periodic table.		
Unit 2: Earth's Crust	**3 weeks**	**August 29 – September 16**
This unit introduces the layers that form Earth with a focus on the theory of plate tectonics. The unit includes the identification of minerals and rocks and the study of the rock cycle.		
Unit 3: Geologic History of Earth	**4 weeks**	**September 19 – October 14**
This unit focuses on fossils and the evidence of past geologic eras that fossils provide. The methods used to understand the changes experienced by Earth and other planets since their formation are also emphasized. The activities in this unit are also intended to explore Earth's historical data and geological principles used to study Earth's composition, age, and processes that affect Earth's form.		
Unit 4: Landforms and Topography	**5 weeks**	**October 17 – November 18**
This unit focuses on human actions and natural processes that shape the landforms of Louisiana, with explanations of how weathering and erosion agents affect Earth's surface. Reading topographical maps and the topography of the continents and ocean floor are also addressed.		
Unit 5: Factors that Affect Earth	**6 weeks**	**November 28 – January 27**
This unit focuses on the Earth's atmosphere, the processes of the water cycle, and the factors that affect the rate of water movement through the cycle. Weather patterns, historical trends, and the use of data to predict future weather conditions are emphasized.		
Unit 6: Earth's Forces	**2 weeks**	**January 30 – February 24**
This unit focuses on demonstrating the magnetic fields of bar magnets and making comparisons to those of Earth; demonstrating Newton's laws of motion; defining gravity and its relationship to mass and distance between objects; and explaining relationships between force, mass, and acceleration.		
Unit 7: Astronomy and Space Exploration	**6 weeks**	**March 6 – April 13**
This unit focuses on astronomy and space exploration: how the study of the Solar System's structure, movements, and the continuing developments in technology enable us to understand Earth and its place in the solar system—in the Milky Way galaxy.		
Unit 8: Pollution and Its Effects	**3 weeks**	**April 24 – May 23**
This unit focuses on human activities that affect Earth's systems and resources, such as point source and non-point source pollution. The importance of clean water and factors that would be considered methods of protecting water resources are also addressed in this unit.		