

**Madison County Schools
Biology Pacing Guide**

Unit topic	Objective covered	Time length
1st Nine Weeks		
Introduction to Life	Objective 1A: Students will demonstrate an understanding of the characteristics of life and biological organization. Objective 1B: Students will analyze the structure and function of the macromolecules that make up cells.	Not designated at this time
Cell Parts and Organization	Objective 1C: Students will relate the diversity of organelles to a variety of specialized cellular functions.	Not designated at this time
Cell Transport	Objective 1D: Students will describe the structure of the cell membrane and analyze how the structure is related to its primary function of regulating transport in and out of cells to maintain homeostasis.	Not designated at this time
2nd nine weeks		
Energy Transfer in Cells	Objective 2: Students will explain that cells transform energy through the processes of photosynthesis and cellular respiration to drive cellular functions.	Not designated at this time

The Cell Cycle	Objective 1E: Students will develop and use models to explain the role of the cell cycle during growth, development, and maintenance in multicellular organisms.	Not designated at this time
Protein Synthesis	Objective 3C: Students will construct an explanation based on evidence to describe how the structure and nucleotide base sequence of DNA determines the structure of proteins or RNA that carry out essential functions of life.	Not designated at this time
3rd nine weeks		
Genetics	Objective 3A: Students will develop and use models to explain the role of meiosis in the production of haploid gametes required for sexual reproduction. Objective 3B: Students will analyze and interpret data collected from probability calculations to explain the variation of expressed traits within a population.	Not designated at this time
Ecology	Objective 5: Students will Investigate and evaluate the interdependence of living organisms and their environment.	Not designated at this time
4th Nine Weeks		
Adaptations and Evolution	Objective 4: Students will analyze and interpret evidence to explain the unity and diversity of life.	Not designated at this time

