	Sem 1: Aug/Sept Sem 2: Jan/Feb	Sem 1: Sept/Oct Sem 2: Feb/Mar	Sem 1: Oct/Nov Sem 2: Mar/Apr	Sem 1: Nov/Dec Sem 2: Apr/May
	Unit 1 Ecology	**Unit 2 Cells**	**Unit 3 Genetics**	**Unit 4 Evolution**
Standards	**Ohio Standards:** **B.DI.1: Biodiversity** • Genetic diversity • Species diversity **B.DI.2: Ecosystems** • Equilibrium and disequilibrium • Carrying capacity **B.DI.3: Loss of Diversity** • Climate change • Anthropocene effects • Extinction • Invasive species	**Ohio Standards:** **B.C.1: Cell Structure and Function** ● Structure, function and interrelatedness of cell organelles ● Eukaryotic cells and prokaryotic cells **B.C.2: Cellular Processes** ● Characteristics of life regulated by cellular processes ● Photosynthesis, chemosynthesis, cellular respiration, biosynthesis of macromolecules	**Ohio Standards:** **B.H.1: Cellular Genetics** **B.H.2: Structure and Function of DNA in Cells** **B.H.3: Genetic Mechanisms and Inheritance** **B.H.4: Mutations** **B.H.5: Modern Genetics**	**Ohio Standards:** **B.E.1: Mechanisms** ● Natural selection ● Mutation ● Genetic drift ● Gene flow (immigration, emigration) ● Sexual selection **B.E.2: Speciation** ● Biological classification expanded to molecular evidence ● Variation of organisms
Topics	**Chapter 1: Introduction to Biology** ● 1.1: The Study of Life ● 1.2: Constructing Explanations about the Natural World ● 1.3: Using Biology to Develop Solutions **Chapter 2: Energy & Matter in Ecosystems (B.DI. 2)** ● 2.1: Ecological Systems ● 2.2: Transfer of Energy & Matter ● 2.3: Energy & Matter Distribution ● 2.4: Cycling of Matter **Chapter 3: Biodiversity & Ecosystem Stability (B.DI. 1, B.DI. 2)** ● 3.1: Ecological Relationships ● 3.2: Biodiversity ● 3.3: Ecosystem Stability & Change **Chapter 4: Population Measurement & Growth (B.DI.2, B.DI.3)** ● 4.1: Measuring Populations ● 4.2: Modeling Population Growth Patterns ● 4.3: Factors that Limit Population Growth	**Chapter 5: Molecules in Living Systems (B.C.2)** ● 5.3: Carbon-Based Molecules ● 5.4: Chemical Reactions **Chapter 6: Cell Structure & Function (B.C.1, B.C.2)** ● 6.1: Cell Structures ● 6.2: Cell Membranes ● 6.3: Photosynthesis & Cellular Respiration **Chapter 7: Cell Growth** ● 7.1: Cell Cycles ● 7.2: Mitosis ● 7.3: Cell Differentiation	**Chapter 11: DNA, RNA & Proteins (B.H.1, B.H.2, B.H.3)** ● 11.1: Structure & Information ● 11.2: Replication, Transcription & Translation **Chapter 12: Genetic Variation & Heredity (B.H.1, B.H.3, B.H.4)** ● 12.1: Meiosis ● 12.2: Mutations ● 12.3: Mendelian Inheritance ● 12.4: Other Patterns of Inheritance **Chapter 13: Genetic Technologies (B.H.5)** ● 13.1: Tools in Genetic Technology ● 13.2: Applications in Genetic Engineering	**Chapter 14: Evidence for Evolution (B.E.1, B.E.2)** ● 14.1: Evolution of Life ● 14.2: Fossils & Geological Evidence ● 14.3: Developmental, Anatomical & Genetic Evidence **Chapter 15: The Theory of Evolution (B.E.1, B.E.2)** ● 15.1: Theory of Evolution by Natural Selection ● 15.2: Evolution in Populations ● 15.3: Other Patterns in Population Genetics **Chapter 16: Survival in Changing Environments (B.E.2)** ● 16.1: Speciation ● 16.2: Extinction ● 16.3: Human Impacts on the Environment
Assessments	**Mini Labs (AA)** **Chapter 2 & 3 Quizzes (AA)** **Unit 1: Ecology Test (AA)**	**Mini Labs (AA)** **Chapter 5 Quiz (AA)** **Unit 2: Cells Test (AA)**	**Mini Labs (AA)** **Chapter 11 & 12 Quizzes (AA)** **Unit 3: Genetics Test (AA)**	**Mini Labs (AA)** **Chapter 14 & 15 Quizzes (AA)** **Unit 4: Evolution Test (AA)**