

Assignment Checklist

Biology

Key
AC: Application of Content, **CP:** Content Practice, **GS:** Getting Started, **MAA:** Module Authentic Assessment, **MS:** Module Survey, **MT:** Module Test, **WU:** Warm-Up

The chart below reflects assignments in the course for which students submit both required and optional work. These learning activities include a variety of assignment types that are assessed by an instructor or the learning management system (LMS). The associated submission folders have been created for these assignments in the LMS. The self-check and review learning objects listed below have printed results that can be submitted to the instructor if desired.

Topic/Page In Course	Activity Title	Activity Type	Total Points	Date Completed	Points Earned
Module 1: Fundamentals of Biology					
GS	Is It Biology?	Learning Object			
1.1 WU	Living vs. Non-Living	List			
1.1 CP	What Is Biology Review	Learning Object			
1.1 AC	Are Trees Living?	Debate Preparation			
1.2 WU	<i>The Discovery of Penicillin</i>	Video			
1.2 CP	Scientific Investigation Review	Learning Object			
1.2 AC	Scientific Investigation Design	Scientific Investigation			
1.3 WU	Measurement	Learning Object			
1.3 CP	Measurement Review	Learning Object			
1.3 AC	Graphing Measurements	Graph Design			
1.4 WU	Laboratory Safety and Equipment Rollover	Learning Object			
1.4 AC	Laboratory Safety and Equipment	Check for Understanding			
MAA	Fundamentals of Biology	App Design			
MT	Module Test	Test			
Module 2: Biochemistry					
GS	Intersections Between Sciences	List			
2.1 WU	<i>Water and Mystery of Water</i>	Videos			
2.1 CP	Properties of Water Review	Learning Object			
2.1 AC	Properties of Water Scientific Investigation	Scientific Investigation			
2.2 WU	Solutions In Everyday Life	List			
2.2 CP	Acids and Bases Review	Learning Object			
2.2 AC	pH Scale Graphic	Scale Design and Labelling			
2.3 WU	Macromolecules	Learning Object			
2.3 CP	Organic Molecules Review	Learning Object			
2.3 AC	Macromolecules Cube	Cube Design			
2.4 WU	<i>The Chemistry of Onions</i>	Video			
2.4 CP	Chemical Reactions Review	Learning Object			
2.4 AC	Enzymatic Browning Scientific Investigation	Scientific Investigation			
MAA	Healthy Diet Article	Magazine Article			
MT	Module Test	Test			

Module 3: Cell Biology – Structure and Function					
GS	Cells	Learning Object			
3.1 WU	1838 – <i>The Cellular Basis of Plant Life</i>	Video and Sketch			
3.1 CP	Cell Theory Review	Learning Object			
3.1 AC	Cell Theory Timeline	Timeline Design			
3.2 WU	Prokaryotic or Eukaryotic?	Learning Object			
3.2 CP	Cell Types Review	Learning Object			
3.2 AC	Spontaneous Generation Scientific Investigation	Scientific Investigation			
3.3 WU	Differences Between Plant and Animal Cells	List			
3.3 CP	Cell Structure Review	Learning Object			
3.3 AC	Cell Structure Quiz	Quiz			
3.4 WU	Cell Membrane Efficiency	Discussion			
3.4 CP	Cellular Membranes Review	Learning Object			
3.4 AC	Gummy Bear Membrane Scientific Investigation	Scientific Investigation			
3.5 WU	Areas of Photosynthetic Activity	Think About			
3.5 CP	Photosynthesis and Respiration Review	Learning Object			
3.5 AC	Photosynthesis and Respiration Graphics	Graphic Design			
MAA	Molecule Travel Blog	Travel Blog			
MT	Module Test	Test			
MS	Module Survey	Survey			
Module 4: Cell Biology – Growth and Reproduction					
GS	The Parts of the Cell Involved in Division	Learning Object			
4.1 WU	Phases of Mitosis	Learning Object			
	<i>Mitosis</i>	Video			
4.1 CP	The Cell Cycle Review	Learning Object			
4.1 AC	Phases of the Cell Cycle and Phases of Mitosis	Graphic Organizer			
4.2 WU	Comparing Cell Types	List			
4.2 CP	Cell Specialization Review	Learning Object			
4.2 AC	Cell Specialization Quiz	Quiz			
4.3 WU	Parthenogenesis	Think About			
4.3 CP	Meiosis Review	Learning Object			
4.3 AC	Meiosis I and Meiosis II	Graphic Organizer			
MAA	Onion Tip Mitosis Scientific Investigation	Scientific Investigation			
MT	Module Test	Test			
Module 5: Mendelian Genetics and Genetic Disorders					
GS	Dominant and Recessive Characteristics	Checklist			

5.1 WU	1866 – Mendel's Laws of Inheritance	Video			
5.1 CP	The Origins of Genetics Review	Learning Object			
5.1 AC	Create a Monster	Template Completion			
5.2 WU	Impact of Genetics	Discussion			
5.2 CP	The Origins of Genetics Review	Learning Object			
5.2 AC	Analyzing Pedigrees	Template Completion			
5.3 WU	Karyotypes	Think About			
5.3 CP	Genetic Disorders Review	Learning Object			
5.3 AC	Genetic Disorders Quiz	Quiz			
MAA	Fingerprint Inheritance Scientific Investigation	Scientific Investigation			
MT	Module Test	Test			
Module 6: DNA, RNA, and Molecular Genetics					
GS	Molecular Genetics Advances	Think About			
6.1 WU	Contributions to the Discovery of DNA	Learning Object			
6.1 CP	The Discovery of DNA Review	Learning Object			
6.1 AC	Discovery of DNA Microblog	Microblog			
6.2 WU	Structure of DNA	Sketch			
6.2 CP	DNA - Structure, Function, and Replication Review	Learning Object			
6.2 AC	Structure, Function, and Replication Quiz	Quiz			
6.3 WU	Complete the DNA and RNA Strands	Learning Object			
6.3 CP	RNA - Transcription, Translation, and Protein Synthesis Review	Learning Object			
6.3 AC	From Gene to Protein Scientific Investigation	Scientific Investigation			
6.4 WU	Mutations	Think About			
6.4 CP	Genetic Diversity and Mutation Review	Learning Object			
6.4 AC	Mutated Sequences	Template			
6.5 WU	Achievements of Biotechnology	Learning Object			
6.5 CP	DNA Technologies Review	Learning Object			
6.5 AC	Genetic Engineering	Discussion			
MAA	DNA, RNA, and Molecular Genetics Articles	Article Evaluation			
MT	Module Test	Test			
MS	Module Survey	Survey			
Module 7: Organ Systems and Homeostasis					
GS	Which Organ System Is It?	Learning Object			
7.1 WU	The Circulatory and Respiratory Systems	Learning Object			
7.1 CP	The Circulatory and Respiratory Systems Review	Learning Object			
7.1 AC	The Dangers of Smoking	Poster Design			
7.2 WU	<i>Guts: Technology to Track Digestion</i>	Video			

7.2 CP	The Digestive and Excretory Systems Review	Learning Object			
7.2 AC	The Digestive and Excretory Systems Flow Chart	Graphic Organizer			
7.3 WU	Functions of the Nervous System	Think About			
7.3 CP	The Nervous System Review	Learning Object			
7.3 AC	The Nervous System Quiz	Quiz			
7.4 WU	<i>Immune Cells in Action</i>	Video			
7.4 CP	The Immune System Review	Learning Object			
7.4 AC	Immune System Infographic	Infographic Design			
MAA	Impact of Disease on the Body	Website Design			
MT	Module Test	Test			
Module 8: Evolution and Natural Selection					
GS	Evolution and Natural Selection: Terms and Definitions	Learning Object			
8.1 WU	Analyzing a Fossil	Discussion			
8.1 CP	The Fossil Record Review	Learning Object			
8.1 AC	The Fossil Record and the Origin of Life	Check for Understanding			
8.2 WU	Hypothesis vs. Theory	Think About			
8.2 CP	The Theory of Evolution Review	Learning Object			
8.2 AC	Darwin Journal Entry	Journal Entry			
8.3 WU	<i>Natural Selection Crash Course Biology #14</i>	Video			
8.2 CP	Natural Selection, Adaptations, and Patterns of Evolution Review	Learning Object			
8.3 AC	Natural Selection Scientific Investigation	Scientific Investigation			
MAA	Evolution Museum Exhibit Podcast	Podcast			
MT	Module Test	Test			
Module 9: Classification - The Basics					
GS	Classification: What Do You Know?	Learning Object			
9.1 WU	Classifying Animals	Learning Object			
9.1 CP	Taxonomy Review	Learning Object			
9.1 AC	Illustrated Linnaean Classification	Diagram			
9.2 WU	Local Tree Species	Species Identification Research			
9.2 CP	Cladograms and Dichotomous Keys Review	Learning Object			
9.2 AC	Create a Dichotomous Key	Field Investigation			
9.3 WU	Which One Is the Chicken?	Think About			
9.3 CP	Species Identification Review	Learning Object			
9.3 AC	Comparing Structural Characteristics	Research and Analysis			
9.4 WU	The Importance of Classification	Discussion			

9.4 CP	Domains and Kingdoms Review	Learning Object			
9.4 AC	Classifying Domains and Kingdoms	Template/ Organizer			
MAA	Classification at a Local Park, Zoo, or Aquarium	Field Trip			
MT	Module Test	Test			
MS	Module Survey	Survey			
Module 10: Classification – Diversity in the Six Kingdoms					
GS	<i>Incredible Invertebrates and Very Cool Vertebrates</i>	Videos			
10.1 WU	Extreme Microorganisms	Think About			
10.1 CP	Microorganisms Review	Learning Object			
10.1 AC	Microorganisms	Template/ Organizer			
10.2 WU	<i>Life of a Tree</i>	Video			
10.2 CP	Kingdom Plantae Review	Learning Object			
10.2 AC	Carnation Color Scientific Investigation	Scientific Investigation			
10.3 WU	Invertebrates	List			
10.3 CP	Subphylum Invertebratae	Learning Object			
10.3 AC	Classifying Invertebrates	Template			
10.4 WU	Vertebrates and Invertebrates Venn Diagram	Graphic Organizer			
10.4 CP	Subphylum Invertebratae	Learning Object			
10.4 AC	Vertebrates Acrostic Poems	Poem Composition			
MAA	Microorganisms, Plants, Invertebrates, and Vertebrates Presentation	Collaborative Presentation			
MT	Module Test	Test			
Module 11: Ecology					
GS	Ecology Basics	Learning Object			
11.1 WU	<i>Steve MacLean: Conservationist</i>	Video			
11.1 CP	Ecosystems and Communities Review	Learning Object			
11.1 AC	Ecological Levels Graphic Organizer	Graphic Organizer			
11.2 WU	Human Population	Discussion			
11.2 CP	Population Dynamics Review	Learning Object			
11.2 AC	Population Dynamics	Check for Understanding			
11.3 WU	Mystery of Bees	Video			
11.3 CP	Energy and Nutrients in Ecosystems Review	Learning Object			
11.3 AC	Food Web Creation	Graphic Design			
11.4 WU	Primary or Secondary Succession	Learning Object			
11.4 CP	Ecological Succession and Virginia Ecosystems Review	Learning Object			
11.4 AC	Creating Primary or	Model			

	Secondary Succession				
11.5 WU	NOAA's Connect the Dots Game	Web-Based Game			
11.5 AC	Virginia Environmental Issues	Article			
MAA	Impacting Local Ecology	Volunteer Experience			
MT	Module Test	Test			
MS	Module Survey	Survey			