

2nd SEM.



AAD—Biology I

Course Code(s):	TBD
Prerequisite(s):	None
Credit:	1
Grade Level:	9-12
Graduation Requirements:	This course satisfies one of three science credit requirements for the alternate academic diploma
Programs of Study and Sequence:	This is typically the first course in science program of study.
Teacher Endorsement(s):	TBD

Course Requirements

1
7 weeks

From Molecules to Organisms: Structures and Processes (LS1)	
AAD.BIO1.LS1.1	Recognize that all living things are composed of cells and basic cell structures (i.e., plant cell vs. animal cell). *
AAD.BIO1.LS1.2	Use a model to identify how growth occurs when cells multiply. *
AAD.BIO1.LS1.3	Recognize that a system of cell work together to form tissue or organs that have specialized body functions (i.e., digestive system). *
AAD.BIO1.LS1.4	Identify essential functions of a cell from maintaining life (i.e., breakdown and absorption of fats, proteins, and carbohydrates). *
AAD.BIO1.LS1.5	Describe the feedback mechanisms used by a living system to maintain internal conditions (e.g., Identify how different organisms react to changes such as during exercise (e.g., heart rate, body temperature)). ✓
AAD.BIO1.LS1.6	Recognize the process of photosynthesis as related to the storing of energy and respiration as the release of that energy. *
AAD.BIO1.LS1.7	Recognize the importance of oxygen within a cell in order to produce energy from food (aerobic cellular respiration). *
Ecosystems: Interactions, Energy, and Dynamics (LS2)	
AAD.BIO1.LS2.1	Recognize that an ecosystem is defined by physical factors such as light, temperature, water, soil and shelter required for the organisms that live within the ecosystem. ✓
AAD.BIO1.LS2.2	Describe the relationship between the growth and population of organisms and the food and shelter resources available. ✓

2
(5 weeks)

AAD.BIO1.LS2.3	Demonstrate or diagram the hierarchical relationship between producers, consumers and decomposers within an ecosystem.	*
AAD.BIO1.LS2.4	Recognize the interdependence of organisms within a food web.	*
AAD.BIO1.LS2.5	Use a graphical representation to identify the changes in the amount of matter or energy as it travels through a food web.	*
Heredity: Inheritance and Variation of Traits (LS3)		
AAD.BIO2.LS3.1	Recognize that characteristics or traits are a result of genes within chromosomes.	✓
AAD.BIO2.LS3.2	Recognize that offspring possess one set of chromosome from each parent forming new chromosome pair and two alleles of each gene.	✓
Biological Evolution: Unity and Diversity (LS4)		
AAD.BIO2.LS4.1	Recognize that adaptations occur when traits benefit a species and increase the likelihood of survival.	✓
AAD.BIO1.LS4.2	Classify, compare and contrast organisms by traits and characteristics defined by the organisms chromosomes (DNA).	✓

3
(2 weeks)

4
(2 weeks)

Standards Numbering Notes

The numbering is not exactly parallel to the state standards but is designed to create some consistency across disciplines for the special education teachers who may be teaching multiple subjects.

The following system was used to number the science standards:

~~AAD.BIO1.LS1.1~~

Alternate academic diploma (AAD) standards

Biology I (BIO1) is the course

Life Science 1 (LS1) is the first core idea in the life science progression

1 is the standard number in the core idea (standards numbered consecutively within each cluster)