

Biology AIS/Science Foundations Pacing Calendar

Semester Dates: 9/15/2025 – 1/16/2026

Finerson-Adu

Week	Dates	Topics / Units	Notes
1	9/15 - 9/19	Introduction to Biology & Scientific Method <ul style="list-style-type: none">I can explain what biology is and why it is important.I can describe the steps of the scientific method.I can design and conduct a simple scientific investigation.	Start of semester
2	9/22 - 9/26	Cell Structure and Function <ul style="list-style-type: none">I can identify the major parts of a cell and describe their functions.I can compare and contrast prokaryotic and eukaryotic cells.I can explain the roles of organelles in maintaining cell life.	No school 9/23-24
3	9/29 - 10/3	Cell Transport & Homeostasis <ul style="list-style-type: none">I can explain how substances move across cell membranes (diffusion, osmosis, active transport).I can describe how cells maintain homeostasis.I can analyze the effects of different solutions on cells.	No school 10/2
4	10/6 - 10/10	Cellular Respiration and Photosynthesis <ul style="list-style-type: none">I can describe the processes of cellular respiration and photosynthesis.I can explain how energy is captured and used by cells.I can compare the reactants and products of photosynthesis and respiration.	
5	10/13 - 10/17	Genetics: DNA Structure and Function <ul style="list-style-type: none">I can describe the structure of DNA and its role in heredity.I can explain how DNA replication occurs.I can understand how DNA codes for proteins.	No school 10/13, 10/20
6	10/20 - 10/24	Genetics: Mendelian Inheritance <ul style="list-style-type: none">I can explain Mendel's laws of inheritance.I can predict the outcomes of genetic crosses using Punnett squares.I can distinguish between dominant, recessive, homozygous, and heterozygous traits.	No school 10/20

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7	10/27 - 10/31	Molecular Genetics and Biotech <ul style="list-style-type: none"> I can describe how genes are expressed through transcription and translation. I can explain the basics of biotechnology techniques (e.g., genetic engineering). I can discuss ethical considerations in biotechnology. 	
8	11/3 - 11/7	Evolution: Natural Selection <ul style="list-style-type: none"> I can explain the concept of natural selection. I can describe how traits that increase survival and reproduction become more common. I can analyze examples of adaptation in populations. 	No school 11/4
9	11/10 - 11/14	Evolution: Speciation and Evidence <ul style="list-style-type: none"> I can explain how new species form (speciation). I can identify different types of evidence that support evolution. I can describe patterns of evolution over time. 	No school 11/11
10	11/17 - 11/21	Ecology: Ecosystems and Energy Flow <ul style="list-style-type: none"> I can describe the components of ecosystems. I can explain how energy flows through ecosystems via food chains and webs. I can analyze the roles of producers, consumers, and decomposers. 	
11	11/24 - 11/28	Ecology: Populations and Communities <ul style="list-style-type: none"> I can explain factors that affect population size and growth. I can describe interactions within biological communities. I can analyze how ecosystems maintain balance. 	No school 11/27-28
12	12/1 - 12/5	Human Body Systems: Overview <ul style="list-style-type: none"> I can identify the major human body systems. I can explain the basic functions of each system. I can describe how body systems work together to maintain health. 	
13	12/8 - 12/12	Human Body Systems: Circulatory & Respiratory <ul style="list-style-type: none"> I can describe the structure and function of the circulatory and respiratory systems. I can explain how these systems work together to transport oxygen and nutrients. I can analyze the impact of lifestyle on these systems' health. 	
14	12/15 - 12/19	Human Body Systems: Digestive & Excretory	

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		<ul style="list-style-type: none"> ● I can describe the structure and function of the digestive and excretory systems. ● I can explain how the body processes and eliminates waste. ● I can analyze how these systems contribute to homeostasis. 	
15	12/22 - 12/26	Human Body Systems: Nervous & Endocrine <ul style="list-style-type: none"> ● I can describe the structure and function of the nervous and endocrine systems. ● I can explain how these systems regulate body functions. ● I can analyze how the body responds to stimuli and maintains balance. 	No school 12/24-26
	12/29 - 1/2	Winter Break - No School	
16	1/5 - 1/9	Review and Exam Preparation	
17	1/12 - 1/16	Final Exam Wrap-up & Course Reflection	End of semester