



Semester: 1

2025 – 2026

Grade Level		Grade 12	Subject: AP Biology	
Teacher(s) Name		Halima Issa		
Textbook		McGraw hill AP biology 14th edition		
Week #	Dates		Lesson Title / Pages	CCSS / NGSS Code / MOE
1	Aug.25 th	Aug.29 th	<ul style="list-style-type: none">- Introduction to AP Biology Framework- AP Science Skills- Overview	BIG IDEA 2 -3 and 4 SY1-Living systems are organized in a hierarchy of structural levels that interact
2	Sept. 1 st	Sept. 5 th	<ul style="list-style-type: none">- Diagnostic Test 1.1 Structure of Water and Hydrogen Bonding 1.2 Elements of Life 1.3 Introduction of Biological Macromolecules.	BIG IDEA 2 -3 and 4 SY1-Living systems are organized in a hierarchy of structural levels that interact
3	Sept.8 th	Sept.12 th	1.4 Properties of Biological Macromolecules 1.5 Structure and Function of Biological Macromolecules	BIG IDEA 2 -3 and 4 SY1-Living systems are organized in a hierarchy of structural levels that interact. IST-1 Heritable information provides for continuity of life

4	Sept. 15 th	Sept.19 th	<p>1.6 Nucleic Acids</p> <p>2.1 Cell Structure: Subcellular Components.</p> <p>2.2 Cell Structure and Function</p>	<p>Big idea 1-2-3 and 4</p> <p>SY1-Living systems are organized in a hierarchy of structural levels that interact</p> <p>ENE-1</p> <p>The highly complex organization of living systems requires constant input of energy and the exchange of macromolecules</p>
5	Sept.22 nd	Sept.26 th	<p>2.4: Plasma Membranes 2.5: Membrane Permeability 2.6 Membrane Transport</p>	<p>ENE-2</p> <p>Cells have membranes that allow them to establish and maintain internal environments that are different from their external environments</p>
6	Sept. 29 th	Oct.3 rd	<p>2.7: Facilitated Diffusion. 2.8: Tonicity and Osmoregulation</p>	<p>ENE-2</p> <p>Cells have membranes that allow them to establish and maintain internal environments that are different from their external environments</p>
7	Oct.6 th	Oct.10 th	<p>2.9: Mechanisms of Transport. 2.10: Compartmentalization 2.11: Origins of Cell Compartmentalization</p>	<p>ENE-2</p> <p>Cells have membranes that allow them to establish and maintain internal environments that are different from their external environments</p>

				EVO-1 Evolution is characterized by a change in the genetic make up of a population over time and is supported by multiple lines of evidence.
8	Oct.13 th	Oct.17 th	3.1 Enzyme Structure. 3.2 Enzyme Catalysis 3.3 Environmental Impacts on Enzyme Function	ENE-1 the highly complex organization of living systems requires constant input of energy and the exchange of macromolecules
9	Oct.20 th	Oct.24 th Oct 24 End of Quarter 1	3.4: Cellular Energy 3.5 Photosynthesis	ENE-1 the highly complex organization of living systems requires constant input of energy and the exchange of macromolecules
10	Oct.27 th	Oct.31 st	3.6 Cellular Respiration 3.7 Fitness	ENE-1 the highly complex organization of living systems requires constant input of energy and the exchange of macromolecules SYI-3 Naturally occurring diversity among and between components within biological systems affects interactions with the environment.
11	Nov.3 rd	Nov.7 th	4.1: Cell Communication 4.2 Introduction to Signal Transduction 4.3 Signal Transduction	IST-3 Cells communicate by generating, transmitting, receiving and responding to chemical signals.

12	Nov.10 th	Nov.14 th	<p>4.4 Changes in Signal Transduction Pathways</p> <p>4.5 Feedback</p>	<p>IST-3 Cells communicate by generating, transmitting, receiving and responding to chemical signals.</p> <p>ENE-3 Timing and coordination of biological mechanisms involved in growth, reproduction, and homeostasis depend on organisms responding to environmental cues.</p>
13	Nov.17 th	Nov.21 st	<p>4.6: Cell Cycle</p> <p>4.7: Regulation of Cell Cycle</p>	<p>IST-1</p> <p>Heritable information provides for continuity of life.</p>
14	Nov. 24 th	Nov.28 th	<p>5.1: Meiosis</p> <p>5.2-Meiosis and genetic diversity</p>	<p>IST-1</p> <p>Heritable information provides for continuity of life</p>
15	Dec.1 st	Dec.5 th	<p>5.1: Meiosis</p> <p>5.2-Meiosis and genetic diversity</p>	<p>IST-1</p> <p>Heritable information provides for continuity of life</p>
16	Jan 5 th	Jan 9 th	<p>5.3 Mendelian genetics</p> <p>5.4 Non-Mendelian genetics</p>	<p>EVO-2</p> <p>Organisms are linked by lines of descent from common ancestry.</p> <p>IST-1</p> <p>Heritable information provides for continuity of life</p>

17	Jan 12 th	Jan 16 th	5.4 Non-Mendelian Genetics 5.5 Environmental effects on phenotype 5.6 chromosomal inheritance	IST-1 Heritable information provides for continuity of life SYI-3 Naturally occurring diversity among and between components within biological systems affects interactions with the environment.
18	Jan 19 th	Jan 23 rd	6.1 DNA and RNA Structure 6.2 Replication 6.3 Transcription and RNA Processing	IST-1 Heritable information provides for continuity of life
19	Jan 26 th	Jan 30 th	Semester 1 Exams: Jan 22 nd to Jan 30 th	
Winter Break for Students: Dec 8 to Jan 4				