



1 st Quarter (42 Days)			
Resources: STEMScopes			
Week	Unit/Lesson	Learning Objectives	Reporting Category (TEKS)
1 st : Aug 11-14 (4 days)	Welcome to School	TSW establish class routines and procedures. Icebreakers.	
2 nd : Aug 17-22 (5 days)	Prokaryotic and Eukaryotic Cells	TSW Compare and contrast prokaryotic and eukaryotic cells, including their complexity, and compare and contrast scientific explanations for cellular complexity	B.5B
3 rd : Aug 24-28 (5 days)	Biomolecules	TSW relate the functions of different types of biomolecules including carbohydrates, lipids, proteins, and nucleic acids to the structure and function of a cell TSW investigate and explain the role of enzymes in facilitating cellular processes	B.5A B.11B
4 th : Aug 31-Sep 4 (5 days)	Biomolecules	TSW relate the functions of different types of biomolecules including carbohydrates, lipids, proteins, and nucleic acids to the structure and function of a cell TSW investigate and explain the role of enzymes in facilitating cellular processes	B.5A B.11B
5 th : Sept 8-12 (5 days)	Monday: Labor Day Holiday Diseases	TSW compare the structures of viruses to cells and explain how viruses spread and cause disease TSW relate disruptions of the cell cycle to how they lead to the development of diseases such as cancer	B.5D B.6C
6 th : Sept 14-18 (5 days)	Diseases	TSW compare the structures of viruses to cells and explain how viruses spread and cause disease TSW relate disruptions of the cell cycle to how they lead to the development of diseases such as cancer	B.5D B.6C
7 th : Sept 21-25 (5 days)	Cell Cycle and Specialization Friday: Professional Development	TSW explain the importance of the cell cycle to the growth of organisms, including an overview of stages of the cell cycle and deoxyribonucleic acid (DNA) replication models TSW explain the process of cell specialization through cell differentiation, including the role of environmental factors	B.6A B.6B
8 th : Sept 28- Oct 2	Cell Cycle and Specialization	TSW explain the importance of the cell cycle to the growth of organisms, including an overview of stages of	B.6A B.6B



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(5 days)		the cell cycle and deoxyribonucleic acid (DNA) replication models TSW explain the process of cell specialization through cell differentiation, including the role of environmental factors	
9 th : Oct 5-8 (4 days)	Cellular Respiration and Photosynthesis	TSW explain how matter is conserved and energy is transferred during photosynthesis and cellular respiration using models, including the chemical equations for these processes	B.11A

2 nd Quarter (42 Days)			
Resources: STEMScopes			
Week	Unit/Lesson	Learning Objectives	Reporting Category (TEKS)
1 st : Oct 14-16 (3 days)	Cellular Respiration and Photosynthesis	TSW explain how matter is conserved and energy is transferred during photosynthesis and cellular respiration using models, including the chemical equations for these processes	B.11A
2 nd : Oct 19-23 (5 days)	DNA	TSW identify components of DNA, explain how the nucleotide sequence specifies some traits of an organism, and examine scientific explanations for the origin of DNA	B.7A
3 rd : Oct 26-29 (4 days)	DNA	TSW identify components of DNA, explain how the nucleotide sequence specifies some traits of an organism, and examine scientific explanations for the origin of DNA	B.7A
4 th : Nov 2-6 (5 days)	Gene Expression	TSW describe the significance of gene expression and explain the process of protein synthesis using models of DNA and ribonucleic acid (RNA) TSW identify and illustrate changes in DNA and evaluate the significance of these changes	B.7B B.7C
5 th : Nov 9-13 (5 days)	Gene Expression	TSW describe the significance of gene expression and explain the process of protein synthesis using models of DNA and ribonucleic acid (RNA)	B.7B B.7C



2 nd Quarter (42 Days)			
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		TSW identify and illustrate changes in DNA and evaluate the significance of these changes	
6 th : Nov 16-20 (5 days)	Meiosis and Reproduction	TSW analyze the significance of chromosome reduction, independent assortment, and crossing-over during meiosis in increasing diversity in populations of organisms that reproduce sexually	B.8A
Nov 23-27		Thanksgiving Holiday	
7 th : Nov30- Dec 4 (5 days)	Meiosis and Reproduction	TSW analyze the significance of chromosome reduction, independent assortment, and crossing-over during meiosis in increasing diversity in populations of organisms that reproduce sexually	B.8A)
8 th : Dec 7-11 (5 days)	Genetics and Inheritance	TSW predict possible outcomes of various genetic combinations using monohybrid and dihybrid crosses, including non-Mendelian traits of incomplete dominance, codominance, sex-linked traits, and multiple alleles	B.8B
9 th : Dec14-18 (5 days)	Genetics and Inheritance 2nd Benchmark	TSW predict possible outcomes of various genetic combinations using monohybrid and dihybrid crosses, including non-Mendelian traits of incomplete dominance, codominance, sex-linked traits, and multiple alleles	B.8B
Dec 21- Jan 1	Winter Break (Dec 23-Jan3)		

3 rd Quarter (37 Days)			
Resources: STEMScopes			
Week	Unit/Lesson	Learning Objectives	Reporting Category (TEKS)
1 st : Jan 5-8 (4 days)	Monday: Professional Development Interactions in Body Systems	TSW analyze the interactions that occur among systems that perform the functions of regulation, nutrient absorption, reproduction, and defense from injury or illness in animals	B.12A
2 nd : Jan 11-15	Interactions in Body Systems	TSW analyze the interactions that occur among systems	B.12A



3 rd Quarter (37 Days)			
Resources: STEMScopes			
Week	Unit/Lesson	Learning Objectives	Reporting Category (TEKS)
(5 days)		that perform the functions of regulation, nutrient absorption, reproduction, and defense from injury or illness in animals	
3 rd : Jan 19-22 (4 days)	Monday: MLK Holiday Plant Structures	TSW explain how the interactions that occur among systems that perform functions of transport, reproduction, and response in plants are facilitated by their structures	B.12B
4 th : Jan 25-29 (5 days)	1/24: 100 Days of School Plant Structures	TSW explain how the interactions that occur among systems that perform functions of transport, reproduction, and response in plants are facilitated by their structures	B.12B
5 th : Feb 1-5 (5 days)	Evidence for Evolution	TSW analyze and evaluate how evidence of common ancestry among groups is provided by the fossil record, biogeography, and homologies, including anatomical, molecular, and developmental TSW examine scientific explanations for varying rates of change such as gradualism, abrupt appearance, and stasis in the fossil record	B.9A B.9B
6 th : Feb 8-12 (5 days)	Evidence for Evolution	TSW analyze and evaluate how evidence of common ancestry among groups is provided by the fossil record, biogeography, and homologies, including anatomical, molecular, and developmental TSW examine scientific explanations for varying rates of change such as gradualism, abrupt appearance, and stasis in the fossil record	B.9A B.9B
7 th : Feb 16-19 (4 days)	Monday: Professional Development Mechanisms of Natural Selection	TSW analyze and evaluate how natural selection produces change in populations and not in individuals TSW analyze and evaluate how the elements of natural selection, including inherited variation, the potential of a population to produce more offspring than can survive, and a finite supply of environmental resources, result in differential reproductive success	B.10A B.10B
8 th : Feb 22-26	Mechanisms of Natural Selection	TSW analyze and evaluate how natural selection produces change in populations and not in individuals TSW analyze and evaluate how the elements of natural selection, including inherited variation, the potential of a	B.10A B.10B



3 rd Quarter (37 Days)			
<u>Resources:</u> STEMScopes			
Week	Unit/Lesson	Learning Objectives	Reporting Category (TEKS)
		population to produce more offspring than can survive, and a finite supply of environmental resources, result in differential reproductive success	
9th: Mar 1-12		Ramadan & Spring Break	

4 th Quarter (51 Days)			
<u>Resources:</u> STEMScopes			
Week	Unit/Lesson	Learning Objectives	Reporting Category (TEKS)
1st: Mar15-19 (5 days)	Results of Evolution	TSW analyze and evaluate how natural selection may lead to speciation TSW analyze evolutionary mechanisms other than natural selection, including genetic drift, gene flow, mutation, and genetic recombination, and their effect on the gene pool of a population	B.10C B.10D
2nd: Mar22-26 (5 days)	Ecological Relationships	TSW investigate and evaluate how ecological relationships, including predation, parasitism, commensalism, mutualism, and competition, influence ecosystem stability	B.13A
3rd: Mar 29- Apr 2 (5 days)	Carbon and Nitrogen Cycle	TSW analyze how ecosystem stability is affected by disruptions to the cycling of matter and flow of energy through trophic levels using models TSW explain the significance of the carbon and nitrogen	B.13B B:13C



4 th Quarter (51 Days)			
<u>Resources:</u> STEMScopes			
Week	Unit/Lesson	Learning Objectives	Reporting Category (TEKS)
		cycles to ecosystem stability and analyze the consequences of disrupting these cycles	
4th: April 5-9 (5 days)	Changing Biodiversity	TSW explain how environmental change, including change due to human activity, affects biodiversity and analyze how changes in biodiversity impact ecosystem stability	B.13D
5th: April 12-16 (5 Days)	STAAR	Project based learning Review and assessment	Review
6th: Apr 19-23 (5 days) (5 days)	STAAR	Project based learning Review and assessment	Review
7th: Apr 26-30 (5 days)	STAAR	Project based learning Review and assessment	Review
8th: May 3-8 (5 days)	Homeostasis	TSW investigate homeostasis through the cellular transport of molecules	B.5C
9th: May 10-14 (5 days)	DNA Technology	TSW discuss the importance of molecular technologies such as polymerase chain reaction (PCR), gel electrophoresis, and genetic engineering that are applicable in current research and engineering practices	B.7D
10th: May 19-21 (3 days)	REVIEW AND ASSESSMENT	Review and Assessment	Review
11th: May 24-27 (3 days)	Award Ceremonies / Graduation Ceremonies	Graduation Prep	NA