

2020 TEKS	2017 TEKS Streamlined	2010 TEKS	Aligned	Partially Aligned	Not Aligned	Notes	
<ul> <li>Aligned items indicate that the item addresses content included within the student expectation. However, many items do not address the full breadth of the student expectation language.</li> </ul>							
Partially aligned items have content that is and is not reflected in the 2020 TEKS.							
B.5(A) relate the functions of different types of biomolecules, including carbohydrates, lipids, proteins, and nucleic acids, to the structure and function of a cell;	B.9(A)	B.9(A)	64	63 66	62 65		
B.5(B) compare and contrast prokaryotic and eukaryotic cells, including their complexity, and compare and contrast scientific explanations for cellular complexity;	B.4(A)	B.4(A)	1 5 54				
B.5(C) investigate homeostasis through the cellular transport of molecules; and	B.4(B)	B.4(B)	2 3 6		7		
B.5(D) compare the structures of viruses to cells and explain how viruses spread and cause disease.	B.4(C)	B.4(C)	8 10 11 12	9		#9 may go too far into mechanisms of reproduction. See the TEA TEKS Guide boundary for further guidance.	
B.6(A) explain the importance of the cell cycle to the growth of organisms, including an overview of the stages of the cell cycle and deoxyribonucleic acid (DNA) replication models;	B.5(A)	B.5(A)	12 13 14 15 16				
B.6(B) explain the process of cell specialization through cell differentiation, including the role of environmental factors; and	B.5(B)	B.5(B)	19		17	Knowing the types of cells is not expected in the SE.	
B.6(C) relate disruptions of the cell cycle to how they lead to the development of diseases such as cancer.	B.5(C)	B.5(D)	20				
B.7(A) 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.6(A) B.6(B)	B.6(A) B.6(B) B.9(D)	21 22 23 24		70		
B. 7(B) describe the significance of gene expression and explain the process of protein synthesis using models of DNA and ribonucleic acid (RNA);	B.6(D) B.6(C)	B.6(D) B.6(C)	25 26 27 28				
B.7(C) identify and illustrate changes in DNA and evaluate the significance of these changes; and	B.6(E)	B.6(E)	29 30 31 32				

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B.7(D) 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.6(H)	39 40			
B.8(A) analyze the significance of chromosome reduction, independent assortment, and crossing over during meiosis in increasing diversity in populations of organisms that reproduce sexually; and	B.6(G)	B.6(G)	38			
B.8(B) 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.6(F)	B.6(F)	33 34 35 36 37			
B.9(A) analyze and evaluate how evidence of common ancestry among groups is provided by the fossil record, biogeography, and homologies, including anatomical, molecular, and developmental; and	B.7(A)	B.7(A)	41 42 43 44 45			
B.9(B) examine scientific explanations for varying rates of change such as gradualism, abrupt appearance, and stasis in the fossil record.	B.7(B)	B.7(B)	46			
B.10(A)) analyze and evaluate how natural selection produces change in populations and not in individuals;	B.7(C)	B.7(C)	47			
B.10(B) 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.7(D)	B.7(D)	48 49			
B.10(C) analyze and evaluate how natural selection may lead to speciation; and	B.7(E)	B.7(E)	50 51			
B.10D 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.7(F)	B.7(F)	52 53			
B.11(A) explain how matter is conserved and energy is transferred during photosynthesis and cellular respiration using models, including the chemical equations for these processes; and	B.9(B) (with portion of 4B)	B.9(B)	4* 67		7	
B.11(B) investigate and explain the role of enzymes in facilitating cellular processes	B.9(C)	B.9(C)	68 69			
B.12(A) analyze the interactions that occur among systems that perform the functions of regulation, nutrient absorption, reproduction, and defense from injury or illness in animals; and;	B.10(A))	B.10(A))	71 72 73 74			
B.12(B) explain how the interactions that occur among systems that perform functions of transport, reproduction, and response in plants are facilitated by their structures.	B.10(B)	B.10(B)	18 75 76 77			
B.13(A) investigate and evaluate how ecological relationships, including predation, parasitism, commensalism, mutualism, and competition, influence ecosystem stability;	B.12(A)	B.12(A)	85 86 87 88			Stability is not addressed in items.

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B.13(B) analyze how ecosystem stability is affected by disruptions to the cycling of matter and flow of energy through trophic levels using models;	B.12(C)	B.12(C)	91 92 93 94 95			Disruptions or stability not addressed in items.
B.13(C) explain the significance of the carbon and nitrogen cycles to ecosystem stability and analyze the consequences of disrupting these cycles; and	B.12(D)	B.12E	97 98			Ecosystem stability and consequences of disruptions are not addressed in items.
B.13(D) explain how environmental change, including change due to human activity, affects biodiversity and analyze how changes in biodiversity impact ecosystem stability.	B.12E	B.12F	99 100			
REMOVED; concept now reflected in B.7(A)	B.6(B)	B.6(B)				
REMOVED; concept now reflected in B.7(B)	B.6(C)	B.6(C)				
REMOVED; concept now reflected in middle school TEKS	B.8(A)	B.8(A)			55	
REMOVED; concept now reflected in middle school TEKS	B.8(B)	B.8(B)			56 57 58	
REMOVED; concept now reflected in middle school TEKS	B.8(C)	B.8(C)			59 60 61	
REMOVED	B.10(C)	B.10(C)			78 79	
REMOVED		B.11(A)			80	
REMOVED		B.11(B)			81	
REMOVED	B.11(A)	B.11(C)			82	
REMOVED; concept now reflected in middle school TEKS	B.11(B)	B.11D			83 84	
REMOVED; concept now reflected in middle school TEKS	B.12(B)	B.12(B)			89 90	
		B.12(D)			96	
Alignment Summary			74 Aligned Items	3 Partially Aligned	23 Not Aligned	