



# FULL YEAR 7<sup>th</sup> Grade Science Pacing Guide

Revised for 2010-11

® Standard is revisited

Ⓢ Seventh Grade Standard covered on Tenth Grade Science CST

Week Date	Topic	CA Standards	SEPUP Issues & Life Science	Text Holt 2007
<b>1</b> Aug. 30	Introduction Living Things	7.1.a Students know cells function similarly in all living organisms. 7.7.a Select and use appropriate tools and technology (including calculators, computers, balances, spring scales, microscopes, and binoculars) to perform tests, collect data, and display data. 7.7.b Use a variety of print and electronic resources (including the World Wide Web) to collect information and evidence as part of a research project. 7.7.c Communicate the logical connection among hypotheses, science concepts, tests conducted, data collected, and conclusions drawn from the scientific evidence. Ⓢ 7.7.e Communicate the steps and results from an investigation in written reports and oral presentations.	None	<b>Scientific Method:</b> P. 8-18  <b>Tools &amp; Measurement:</b> P. 20-25  <b>Safety:</b> P.32-37  <b>Characteristics of Living Things:</b> P. 52-55
<b>2</b> Sep. 7				
<b>3</b> Sep. 13	Cell Structure	7.1.a Students know cells function similarly in all living organisms.® 7.1.b Students know the characteristics that distinguish plant cells from animal cells, including chloroplasts and cell walls. 7.1.c Students know the nucleus is the repository for genetic information in plant and animal cells. Ⓢ 7.1.f Students know that as multi-cellular organisms develop, their cells differentiate. 7.5.a. Students know plants and animals have levels of organization for structure and function, including cells, tissues, organs, organ systems, and the whole organism. Ⓢ 7.7.a Select and use appropriate tools and technology (including calculators, computers, balances, spring scales, microscopes, and binoculars) to perform tests, collect data, and display data. ® 7.7.d Construct scale models, maps, and appropriately labeled diagrams to communicate scientific knowledge (e.g., motion of Earth's plates and cell structure).	None	<b>Using a Microscope:</b> P 100  <b>Cells &amp; Cell Theory:</b> P.114-115  <b>Parts of a Cell:</b> P 117, 120-126  <b>Organization of Living Things:</b> P 128-132
<b>4</b> Sep. 20				



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5 Sep. 27	Cell Processes	7.1.b Students know the characteristics that distinguish plant cells from animal cells, including chloroplasts and cell walls.®	None	<b>Photosynthesis:</b> P. 148 P. 396-399  <b>Cellular Respiration:</b> P. 149-150  <b>Electro-magnetic spectrum</b> P.76-81  <b>Visible light</b> P. 78-79
6 Oct. 4		7.1.d Students know that mitochondria liberate energy for the work that cells do and that chloroplasts capture sunlight energy for photosynthesis. Ⓢ 7.6.a Students know visible light is a small band within a very broad electromagnetic spectrum. 7.7.a Select and use appropriate tools and technology (including calculators, computers, balances, spring scales, microscopes, and binoculars) to perform tests, collect data, and display data.® 7.7.d Construct scale models, maps, and appropriately labeled diagrams to communicate scientific knowledge (e.g., motion of Earth's plates and cell structure).®		
7 Oct. 11	Cell Division	7.1.b Students know the characteristics that distinguish plant cells from animal cells, including chloroplasts and cell walls.®	None	<b>Mitosis:</b> P. 152-156  <b>Meiosis:</b> P. 188-191
8 Oct. 18		7.1.c Students know the nucleus is the repository for genetic information in plant and animal cells.® Ⓢ 7.1.e Students know cells divide to increase their numbers through a process of mitosis, which results in two daughter cells with identical sets of chromosomes. Ⓢ 7.2.b Students know sexual reproduction produces offspring that inherit half their genes from each parent. 7.7.c Communicate the logical connection among hypotheses, science concepts, tests conducted, data collected, and conclusions drawn from the scientific evidence. ® Ⓢ 7.7.d Construct scale models, maps, and appropriately labeled diagrams to communicate scientific knowledge (e.g., motion of Earth's plates and cell structure).® 7.7.e Communicate the steps and results from an investigation in written reports and oral presentations.®		



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<p><b>9</b> Oct. 25</p>	<p><i>Flowering Plants</i></p>	<p>7.1.b Students know the characteristics that distinguish plant cells from animal cells, including chloroplasts and cell walls.®</p> <p>7.1.d Students know that mitochondria liberate energy for the work that cells do and that chloroplasts capture sunlight energy for photosynthesis.® Ⓢ</p> <p>7.2.a. Students know the differences between the life cycles and reproduction methods of sexual and asexual organisms.® Ⓢ</p> <p>7.5.a. Students know plants <del>and animals</del> have levels of organization for structure and function, including cells, tissues, organs, organ systems, and the whole organism.® Ⓢ</p> <p>7.5.f Students know the structures and processes by which flowering plants generate pollen, ovules, seeds, and fruit.</p> <p>7.7.c Communicate the logical connection among hypotheses, science concepts, tests conducted, data collected, and conclusions drawn from the scientific evidence.® Ⓢ</p> <p>7.7.d Construct scale models, maps, and appropriately labeled diagrams to communicate scientific knowledge (e.g., motion of Earth's plates and cell structure).®</p>	<p><i>None</i></p>	<p><i>Plant Characteristics:</i> P. 360-361</p> <p><i>Plant Structures:</i> P. 374-380</p> <p><i>Seeds:</i> P. 368-369</p> <p><i>Angiosperms</i> P. 372-373</p>
<p><b>10</b> Nov. 1</p>				



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11 Nov. 8	Heredity	7.1.c Students know the nucleus is the repository for genetic information in plant and animal cells.Ⓜ Ⓜ 7.1.e Students know cells divide to increase their numbers through a process of mitosis, which results in two daughter cells with identical sets of chromosomes.Ⓜ Ⓜ 7.2.a. Students know the differences between the life cycles and reproduction methods of sexual and asexual organisms. Ⓜ 7.2.b Students know sexual reproduction produces offspring that inherit half their genes from each parent. Ⓜ 7.2.c. Students know an inherited trait can be determined by one or more genes. Ⓜ 7.2. d. Students know plant and animal cells contain many thousands of different genes and typically have two copies of every gene. The two copies (or alleles) of the gene may or may not be identical, and one may be dominant in determining the phenotype while the other is recessive. Ⓜ 7.7.c Communicate the logical connection among hypotheses, science concepts, tests conducted, data collected, and conclusions drawn from the scientific evidence.Ⓜ Ⓜ 7.7.d Construct scale models, maps, and appropriately labeled diagrams to communicate scientific knowledge (e.g., motion of Earth's plates and cell structure).Ⓜ 7.7.e Communicate the steps and results from an investigation in written reports and oral presentations.Ⓜ	<b>Genetics:</b> <b>54 - Investigating Human Traits</b> P. D1-D15 <i>Students investigate traits for six human characteristics to begin a discussion of human variation and heredity.</i>	<b>Mendel:</b> P. 174-179  <b>Dominant/Recessive Traits</b> P. 177
			<b>55 – Plants Have Genes, Too!</b> P. D17-D23 <i>Students germinate seeds that are the offspring of plants bred from true-breeding green and pale yellow strains of flowering tobacco. [use in Investigation 62]</i>	<b>Mendel's Experiments:</b> P. 178  <b>Genes/Alleles</b> P. 180
			<b>56 – Joe's Dilemma</b> P. D25-D33 <i>Students are introduced to the issue of genetic testing through a story about a student who suspects he may have inherited a genetic syndrome (the Marfan syndrome).</i>	<b>Phenotype:</b> P. 180  <b>Genotype:</b> P. 181-183
12 Nov. 15	Heredity		<b>57 – Reproduction</b> P. D35-D41 <i>Asexual and sexual reproduction are introduced. Differences between the two prepare students to understand the mechanisms of heredity in sexually reproducing organisms.</i>	<b>Traits:</b> P. 184-185  <b>Asexual Reproduction</b> P. 54, 152-153, 402, 427,
			<b>58 – Creature Features</b> P. D43-D61 <i>Students develop hypotheses to explain the behavior of genes in a story about zoo scientists breeding imaginary creatures. They use models to evaluate how well the hypotheses fit additional evidence about the critter offspring.</i>	<b>Sexual Reproduction</b> P. 189-192
13 Nov. 22 (Thanksgiving)				



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14 Nov. 29	Genes, DNA, Meiosis	7.1.c Students know the nucleus is the repository for genetic information in plant and animal cells.® Ⓢ	<b>59 – Gene Combo</b> P. D63-D75 <i>Students use a coin-tossing simulation to model the pattern of inheritance exhibited by many single-gene traits, including the critter tail-color characteristic. Builds on Activity 58.</i>	<b>DNA Structure:</b> P. 208-213  <b>Genes:</b> P. 214-217
		7.1.e Students know cells divide to increase their numbers through a process of mitosis, which results in two daughter cells with identical sets of chromosomes.® Ⓢ		
7.2.b Students know sexual reproduction produces offspring that inherit half their genes from each parent. ®		<b>60 – Mendel, First Geneticist</b> P. D77-D83 <i>A reading describes Mendel’s experiments with pea plants. Students relate the rules discovered by Mendel in his analysis of pea plant crosses to their findings about critter genes.</i>	<b>Mitosis:</b> P. 152-156  <b>Meiosis:</b> P. 188-191	
7.2.c Students know an inherited trait can be determined by one or more genes.® Ⓢ				
15 Dec. 6		7.2.d Students know plant and animal cells contain many thousands of different genes and typically have two copies of every gene. The two copies (or alleles) of the gene may or may not be identical, and one may be dominant in determining the phenotype while the other is recessive.® Ⓢ	<b>61 – Gene Squares</b> P. D85-D95 <i>Students use Punnett squares to predict the approximate frequencies of traits among offspring of specific critter crosses.</i>	<b>Phenotype:</b> P. 180  <b>Genotype:</b> P. 183
		7.2.e. Students know DNA (deoxyribonucleic acid) is the genetic material of living organisms and is located in the chromosomes of each cell. Ⓢ		
16 Dec. 13	7.7.a Select and use appropriate tools and technology (including calculators, computers, balances, spring scales, microscopes, and binoculars) to perform tests, collect data, and display data.®	<b>62 – Analyzing Genetic Data</b> P. D97-D103 (Uses data from Inv. 55) <i>Students quantify the results of the seeds they germinated in Activity 55. They then compare their results to Mendel’s results.</i>	<b>63 – Show Me the Genes!</b> P. D105-D110 <i>A reading describes the behavior of chromosomes during sexual reproduction and it’s consistency with basic patterns of inheritance.</i>	
	7.7.c Communicate the logical connection among hypotheses, science concepts, tests conducted, data collected, and conclusions drawn from the scientific evidence.® Ⓢ			
Winter Break	7.7.d Construct scale models, maps, and appropriately labeled diagrams to communicate scientific knowledge (e.g., motion of Earth’s plates and cell structure).®	<b>64 – Nature and Nurture (Optional)</b> P. D111-D121 <i>Students design an experiment to investigate the effect of the environment on the development of the green color trait in Nicotiana seedlings.</i>		



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17 Jan. 10	Inheritance	7.2.b Students know sexual reproduction produces offspring that inherit half their genes from each parent. Ⓡ 7.2.c. Students know an inherited trait can be determined by one or more genes. Ⓡ Ⓣ 7.2. d. Students know plant and animal cells contain many thousands of different genes and typically have two copies of every gene. The two copies (or alleles) of the gene may or may not be identical, and one may be dominant in determining the phenotype while the other is recessive. Ⓡ Ⓣ 7.7.c Communicate the logical connection among hypotheses, science concepts, tests conducted, data collected, and conclusions drawn from the scientific evidence. Ⓡ Ⓣ 7.7.d Construct scale models, maps, and appropriately labeled diagrams to communicate scientific knowledge (e.g., cell structure). Ⓡ	<b>65 – Breeding Critters – More Traits</b> P. D123-D131 <i>Students model the diversity of offspring possible from two parents and discover patterns of inheritance.</i>	<b>Meiosis and Inheritance</b> P. 192-193  <b>Hemophilia</b> P. 507
			<b>66 – Patterns in Pedigrees</b> P. D133-D155 <i>Students investigate the behavior of genes for human traits. Pedigrees are introduced as another way to study genes.</i>	
18 Jan. 18	Inheritance		<b>67 – What Would You Do?</b> P. D157-D167 <i>Students return to Joe’s dilemma (Inv. 56) and consider whether he should be tested for the Marfan syndrome.</i>	
19 Jan. 24		<i>End of Semester</i>		





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20 Feb. 1	Fossils Geologic Time	7.3.a Students know both genetic variation and environmental factors are causes of evolution and diversity of organisms. Ⓢ	<b>Evolution:</b> <b>90 – Figuring Out Fossils</b> P. F13-F25 <i>Students handle and describe eight different fossils from various localities and geologic ages. They are briefly introduced to the geologic time scale.</i> <b>91 – Fossilized Footprints</b> P. F27-F35 <i>Students interpret fossilized footprint evidence that is presented to them in stages and develop skills at distinguishing observations from inferences.</i> <b>92 – Time for Change</b> P. F37-F49 <i>Students develop geologic-style personal time scale and then construct a geologic time scale.</i>	<b>Types of Fossils</b> P. 264-266 <b>Fossil Record</b> P. 267-269 <b>Paleontology</b> P. 237 <b>Rock Cycle</b> P. 238-239 <b>Principal of Superposition</b> P. 240 <b>Absolute Dating</b> P. 246-249 <b>Plate Tectonics</b> P. 270-271 <b>Continental Drift</b> P. 272-274 <b>Geologic Time Scale</b> P. 276-282
		7.4.a Students know Earth processes today are similar to those that occurred in the past and slow geologic processes have large cumulative effects over long periods of time.		
		7.4.e Students know fossils provide evidence of how life and environmental conditions have changed.		
21 Feb. 7	Geologic Time Darwin	7.4.g Students know how to explain significant developments and extinctions of plant and animal life on the geologic time scale.	<b>93 – Reading the Rocks</b> P. F51-F61 <i>Students examine four drill cores and use evidence to create stratigraphic column. They use the evidence to construct a timeline showing the relative time spans of each species.</i> <b>94 – A Meeting of Minds</b> P. F63-F73 <i>Students role-play an imaginary meeting between Darwin and Lamarck, presenting and comparing their theories on how evolution occurred.</i>	<b>Index Fossils</b> P. 268-269 <b>Principal of Superposition</b> P. 240 <b>Geologic Time Scale</b> P. 276-282 <b>Darwin</b> P. 306-311 <b>Natural Selection</b> P. 310-315
		7.5.a Students know plants and animals have levels of organization for structure and function, including cells, tissues, organs, organ systems, and the whole organism.® Ⓢ		
		7.7.c Communicate the logical connection among hypotheses, science concepts, tests conducted, data collected, and conclusions drawn from the scientific evidence.® Ⓢ		
		7.4.a Students know Earth processes today are similar to those that occurred in the past and slow geologic processes have large cumulative effects over long periods of time.		
		7.4.e Students know fossils provide evidence of how life and environmental conditions have changed.		
		7.7.c Communicate the logical connection among hypotheses, science concepts, tests conducted, data collected, and conclusions drawn from the scientific evidence.® Ⓢ		
		7.2.c. Students know an inherited trait can be determined by one or more genes. ® Ⓢ		
		7.3.a Students know both genetic variation and environmental factors are causes of evolution and diversity of organisms. Ⓢ		
		7.3.b Students know the reasoning used by Charles Darwin in reaching his conclusion that natural selection is the mechanism of evolution. ® Ⓢ		
		7.3.e Students know that extinction of a species occurs when the environment changes and the adaptive characteristics of a species are insufficient for its survival.		



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22 Feb. 14	Natural Selection	7.2.c Students know an inherited trait can be determined by one or more genes.® ⑩	<b>95 – Hiding in the Background</b> P. F75-F83 <i>Students simulate the effect of prey coloration on predation rates by birds using toothpicks of two colors. They investigate the effect of environment and the role of predation in the process of natural selection.</i>	<i>Species</i> P. 298-299  <i>Darwin</i> P. 306-311  <i>Natural Selection</i> P. 310-315  <i>Branching diagram</i> P. 301  <i>Fossils</i> P. 300	
7.3.a Students know both genetic variation and environmental factors are causes of evolution and diversity of organisms. ⑩		<b>96 – Battling Beaks</b> P. F85-F95 <i>Students simulate the effect of natural selection on an imaginary forkbird species. St the end of the activity, the class discusses the role of variation in the process of natural selection.</i>			<i>Comparing organisms</i> P. 304  <i>Extinction</i> P. 278, 316-317
7.3.b Students know the reasoning used by Charles Darwin in reaching his conclusion that natural selection is the mechanism of evolution. ⑩					
23 Feb. 22		7.3.e Students know that extinction of a species occurs when the environment changes and the adaptive characteristics of a species are insufficient for its survival.	<b>97 – Origins of Species</b> P. F97-F103 <i>Students read about how mutatinis provide genetic variation including Darwin’s observation of finches in the Galapagos Islands and the enormous diversity of cichlids in Lake Victoria and how they provide examples of speciation.</i>		
		7.7.c Communicate the logical connection among hypotheses, science concepts, tests conducted, data collected, and conclusions drawn from the scientific evidence.® ⑩			
		7.2.c Students know an inherited trait can be determined by one or more genes.® ⑩			
		7.3.a Students know both genetic variation and environmental factors are causes of evolution and diversity of organisms. ⑩			
		7.3.b Students know the reasoning used by Charles Darwin in reaching his conclusion that natural selection is the mechanism of evolution. ⑩			
		7.4.g Students know how to explain significant developments and extinctions of plant and animal life on the geologic time scale.			





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<p style="text-align: center;"><b>24</b> Feb. 28</p>	<p>Evolution</p>	<p>7.4.b Students know the history of life on Earth has been disrupted by major catastrophic events, such as major volcanic eruptions or the impacts of asteroids.</p> <p>7.4.d Students know that evidence from geologic layers and radioactive dating indicates Earth is approx. 4.6 billion years old and that life on this planet has existed for more than 3 billion years.</p> <p>7.4.g Students know how to explain significant developments and extinctions of plant and animal life on the geologic time scale.</p> <p>7.7.c Communicate the logical connection among hypotheses, science concepts, tests conducted, data collected, and conclusions drawn from the scientific evidence.® Ⓢ</p>	<p><b>98 – Family Histories</b> P. F105-F119 <i>Students draw and compare double bar graphs showing changes in the numbers of fossil families over geological time. They can conclude that both speciation and extinction have occurred in all classes of vertebrates through geologic time. Class discusses how this evidence provides further support for a branching model of evolution.</i></p>	<p><b>Branching diagram</b> P. 301</p> <p><b>Geologic Time</b> P. 276-277</p> <p><b>Extinction</b> P. 278, 316-317</p>
		<p>7.3.c Students know how independent lines of evidence from geology, fossils, and comparative anatomy provide the bases for the theory of evolution. Ⓢ</p> <p>7.3.d. Students know how to construct a simple branching diagram to classify living groups of organisms by shared derived characteristics and how to expand the diagram to include fossil organisms.</p> <p>7.3.e Students know that extinction of a species occurs when the environment changes and the adaptive characteristics of a species are insufficient for its survival.</p> <p>7.4.e Students know fossils provide evidence of how life and environmental conditions have changed.</p> <p>7.7.c Communicate the logical connection among hypotheses, science concepts, tests conducted, data collected, and conclusions drawn from the scientific evidence.® Ⓢ</p>	<p><b>99 – A Whale of a Tale</b> P. F121-F137 <i>Students investigate how fossil history provides another line of evidence for evolution. They compare the skeleton of a living whale to fossils of its extinct ancestors.</i></p>	



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<p style="text-align: center;"><b>25</b> Mar. 7</p>	<p style="text-align: center;"><i>Genetic Variation</i></p>	<p>7.3.a Students know both genetic variation and environmental factors are causes of evolution and diversity of organisms. ⑩</p> <p>7.3.c Students know how independent lines of evidence from geology, fossils, and comparative anatomy provide the bases for the theory of evolution. ⑩</p> <p>7.3.d. Students know how to construct a simple branching diagram to classify living groups of organisms by shared derived characteristics and how to expand the diagram to include fossil organisms.</p> <p>7.3.e Students know that extinction of a species occurs when the environment changes and the adaptive characteristics of a species are insufficient for its survival.</p> <p>7.7.c Communicate the logical connection among hypotheses, science concepts, tests conducted, data collected, and conclusions drawn from the scientific evidence.Ⓜ ⑩</p>	<p><b>100 – DNA: The Evidence Within</b> P. F139-F163</p> <p><i>Students reexamine classification from an evolutionary perspective. They compare DNA sequences from a number of vertebrates.</i></p>	<p><i>Comparing DNA</i> P. 304</p> <p><i>Extinct Organisms</i> P. 336</p> <p><i>Mammoths</i> P. 265</p>
		<p style="text-align: center;"><i>Extinction</i></p>	<p>7.3.a Students know both genetic variation and environmental factors are causes of evolution and diversity of organisms. ⑩</p> <p>7.3.e Students know that extinction of a species occurs when the environment changes and the adaptive characteristics of a species are insufficient for its survival.</p> <p>7.4.g Students know how to explain significant developments and extinctions of plant and animal life on the geologic time scale.</p> <p>7.7.c Communicate the logical connection among hypotheses, science concepts, tests conducted, data collected, and conclusions drawn from the scientific evidence.Ⓜ ⑩</p>	<p><b>101 – Birds of a Feather?</b> P. F165-F179</p> <p><i>Students read brief case studies of the dodo bird and the pigeon. They discuss the reasons these closely related bird species have such contrasting recent evolutionary histories. Student reconsider the trade-offs involved in trying to re-create an extinct species, such as the dodo or the mammoth.</i></p>



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26 Mar. 14	Body Organization	7.2.e. Students know DNA (deoxyribonucleic acid) is the genetic material of living organisms and is located in the chromosomes of each cell.Ⓡ 7.5.a Students know plants and animals have levels of organization for structure and function, including cells, tissues, organs, organ systems, and the whole organism.Ⓡ Ⓢ 7.5.b Students know organ systems function because of the contributions of individual organs, tissues, and cells. The failure of any part can affect the entire system.	<b>Body Works: 12 – What’s Happening Inside?</b>  <i>Students learn about major organs and systems in the human body.</i>	<b>Body Organization</b> P. 466-468  <b>Organ Systems</b> P. 469-471
27 Mar. 21	Bones Muscles	7.5.a Students know plants and animals have levels of organization for structure and function, including cells, tissues, organs, organ systems, and the whole organism.Ⓡ Ⓢ 7.5.c Students know how bones and muscles work together to provide a structural framework for movement. Ⓢ 7.6.h Students know how to compare joints in the body (wrist, shoulder, thigh) with structures used in machines and simple devices (hinge, ball-and-socket, and sliding joints). 7.6.i Students know how levers confer mechanical advantage and how the application of this principle applies to the musculoskeletal system.	<b>16 – Support System: Bones, Joints and Muscles</b>  <i>Students explore the structure and function of bones, joints and muscles as they dissect a chicken wing.</i>	<b>Skeletal System</b> P. 472-473  <b>Joints</b> P. 474  <b>Muscular System</b> P. 476-477  <b>Levers</b> P. 478-479
28 Mar. 28		<i>Spring Break</i>		



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29 Apr. 11	Respiration  Circulation	7.5.a Students know plants and animals have levels of organization for structure and function, including cells, tissues, organs, organ systems, and the whole organism.® ⑩ 7.5.b Students know organ systems function because of the contributions of individual organs, tissues, and cells. The failure of any part can affect the entire system.® 7.6.j Students know that contractions of the heart generate blood pressure and that heart valves prevent backflow of blood in the circulatory system. ⑩	<b>17 – Gas Exchange</b> <i>Explores the role of the respiratory system in the regulation of gases in the blood.</i>	<i>Circulatory System</i> P. 496-501			
			<b>18 – Circulation Game</b> <i>Students model the path of blood as it travels through the human circulatory system.</i>	<i>Blood</i> P. 502-507			
			<b>19 – Heart-ily Fit</b> <i>Students collect data on their heart rates by measuring their pulses before and after exercise.</i>	<i>Respiratory System</i> P. 508-511			
30 Apr. 18			<b>21 – Inside a Pump</b> <i>Mechanical pumps serve as potential models for the human heart.</i>		<b>22 – The Heart – A Muscle</b> <i>Students evaluate the strength of the heart muscle</i>		
			<b>23 – Heart Parts</b> <i>Students compare models and diagrams to real structures as they investigate the functions of the blood vessels and major structure of the heart.</i>				
			<b>24 – Round and Round</b> <i>Students model how the heart pumps blood to the lungs and the rest of the body.</i>				
31 Apr. 25			<b>26 – Heart Sounds</b> <i>An audiotape of normal and abnormal heart sounds are used to illustrate the relationship of the sounds of the heart cycle &amp; heart problems.</i>		<b>27 – The Pressure’s On</b> <i>Students investigate the effects of high blood pressure.</i>		<b>28 – Heart Problems</b> <i>Students read about high blood pressure, heart disease, and heart attacks.</i>



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<b>Weeks 31-35</b> Apr. 26 - May 24 <b>CST TESTING WINDOW.</b> No SCIENCE CST for 7 <sup>th</sup> grade.				
32 May 2	Ear	7.5.a Students know plants and animals have levels of organization for structure and function, including cells, tissues, organs, organ systems, and the whole organism.Ⓡ Ⓣ 7.5.b Students know organ systems function because of the contributions of individual organs, tissues, and cells. The failure of any part can affect the entire system.Ⓡ 7.5.g Students know how to relate the structures of the <del>eye and</del> ear to their functions.	None	<b>Ear and hearing</b> P. 538-539
33 May 9	Eye Light & Living Things	7.5.a Students know plants and animals have levels of organization for structure and function, including cells, tissues, organs, organ systems, and the whole organism.Ⓡ Ⓣ 7.5.g Students know how to relate the structures of the eye <del>and ear</del> to their functions. 7.6.a Students know visible light is a small band within a very broad electromagnetic spectrum. 7.6.b Students know that for an object to be seen, light emitted by or scattered from it must be detected by the eye. 7.6.c Students know light travels in straight lines if the medium it travels through does not change. 7.6.d Students know how simple lenses are used in a magnifying glass, the eye, a camera, a telescope, and a microscope. 7.6.e Students know that white light is a mixture of many wavelengths(colors) and that retinal cells react differently to different wavelengths. 7.6.f Students know light can be reflected, refracted, transmitted, and absorbed by matter. 7.6.g Students know the angle of reflection of a light beam is equal to the angle of incidence.	None	<b>Eye and sight</b> P. 536-537  <b>Electro-magnetic spectrum</b> P.76-81  <b>Visible light</b> P. 78-79  <b>Reflection</b> P. 82-88  <b>Refraction</b> P. 90-91  <b>Lenses</b> P. 92-96



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⑩ Seventh Grade Standard covered on Tenth Grade Science CST

Week Date	Topic	CA Standards	SEPUP Issues & Life Science	Text Holt 2007
34 May 16	Human Reproduction	7.1.f Students know that as multi-cellular organisms develop, their cells differentiate.®	None	<b>Reproductive organs</b> P. 556-557  <b>Fertilization</b> P. 558  <b>Pregnancy</b> P. 562-565
35 May 23		7.5.a Students know plants and animals have levels of organization for structure and function, including cells, tissues, organs, organ systems, and the whole organism.® ⑩		
36 May 31		7.5.d Students know how the reproductive organs of the human female and male generate eggs and sperm and how sexual activity may lead to fertilization and pregnancy. 7.5.e Students know the function of the umbilicus and placenta during pregnancy.		






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Week Date	Topic	CA ED CODE	Title, posters, videos & test	Lesson
37	Project Alert	 <p>Project Alert Notebook and Support Materials</p> <p>ED CODE SECTION 51260-51269</p> <p>51260.(a) Instruction shall be given in the elementary and secondary schools by appropriately trained instructors on drug education and the effects of the use of tobacco, alcohol, narcotics, dangerous drugs, as defined in Section 11032 of the Health and Safety Code, and other dangerous substances.</p> <p>For purposes of this chapter, an "appropriately trained instructor" is one who, based upon the determination of the site administrator, demonstrates competencies in interacting in a positive manner with children and youth; demonstrates knowledge of the properties and effects of tobacco, alcohol, narcotics, and dangerous drugs; and who demonstrates skills in conducting affective education, which include methods and techniques for helping children and youth to freely express ideas and opinions in a responsible manner and to gain an awareness of their values as they affect decisions related to drug use and misuse.</p> <p>In grades 1 through 6, instruction on drug education should be conducted in conjunction with courses given on health pursuant to subdivision (f) of Section 51210.</p> <p>In grades 7 to 12, inclusive, instruction on drug education shall be conducted in conjunction with courses given on health or in any appropriate area of study pursuant to Section 51220.</p> <p>Such instruction shall be sequential in nature and suited to meet the needs of students at their respective grade level.</p> <p>Contact SAUSD Safe &amp; Drug Free Schools (Ext. 75739) for training information.</p>	<p><b>Motivating Resistance to Drugs</b>  <b>Poster: 12</b>  <b>Test</b> – “Advanced Quiz - How Much Do You Know About Drugs?” (Booster Lesson 1 - P 1.40-1.43)</p>	<p><b>Booster Lesson 1</b></p>
		<p><b>Practice Resisting External and Internal Pressures</b>  <b>Poster: 9</b>  <b>Video: Paul’s Fix</b></p>	<p><b>Booster Lesson 2</b></p>	
		<p><b>Benefits of Resisting Drugs</b>  <b>Poster: 9</b>  <b>Video: Resisting Peer Pressure</b></p>	<p><b>Booster Lesson 3</b></p>	
38 Jun. 13	<b>End of Semester</b>			