

Textbook Alignment to the Utah Core – 7th Grade Integrated Science

This alignment has been completed using an “Independent Alignment Vendor” from the USOE approved list (www.schools.utah.gov/curr/imc/indvendor.html.) Yes No

Name of Company and Individual Conducting Alignment: Jennifer Coker

A “Credential Sheet” has been completed on the above company/evaluator and is (Please check one of the following):

On record with the USOE.

The “Credential Sheet” is attached to this alignment.

Instructional Materials Evaluation Criteria (name and grade of the core document used to align):

Seventh Grade Integrated Science Core Curriculum

Title: *Life’s Structure and Function A; From Bacteria to Plants B; Earth Materials and Processes F; The Changing Surface of Earth G; The Nature of Matter K* © 2008

ISBN#: A--0078778123; B--007877814X; F--0078778220; G--0078778247; K--0078778328

Publisher: Glencoe/McGraw-Hill

Overall percentage of coverage in the *Student Edition (SE)* and *Teacher Edition (TE)* of the Utah State Core Curriculum:
 _____%

Overall percentage of coverage in *ancillary materials* of the Utah Core Curriculum: _____%

STANDARD I: Students will understand the structure of matter.

Percentage of coverage in the <i>student and teacher edition</i> for Standard I: _____%		Percentage of coverage not in student or teacher edition, but covered in the <i>ancillary material</i> for Standard I: _____%		
OBJECTIVES & INDICATORS		Coverage in <i>Student Edition (SE)</i> and <i>Teacher Edition (TE)</i> (pg #'s, etc.)	Coverage in <i>Ancillary Material</i> (titles, pg #'s, etc.)	<i>Not covered in TE, SE or ancillaries</i> ✓
Objective 1.1: Describe the structure of matter in terms of atoms and molecules.				
a.	Recognize that atoms are too small to see.	Student Edition: (A) 68 (K) 16 <i>Launch Lab 7</i> Teacher Wraparound Edition: (A) DI 69 (K) FF 22; UA 9		
b.	Relate atoms to molecules (e.g., atoms combine to make molecules).	Student Edition: (A) 70 <i>Section Review 75 (#1)</i> (K) 25-26 <i>Chapter Review 35 (#18)</i> <i>MiniLab 26</i> <i>Section Review 29 (#3)</i> Teacher Wraparound Edition: (A) CA 70 (K) CU 29; D 27; DI 27; TPK 25		

OBJECTIVES & INDICATORS		Coverage in <i>Student Edition (SE)</i> and <i>Teacher Edition (TE)</i> (pg #'s, etc.)	Coverage in <i>Ancillary Material</i> (titles, pg #'s, etc.)	<i>Not covered in TE, SE or ancillaries</i> ✓
c.	Diagram the arrangement of particles in the physical states of matter (i.e., solid, liquid, gas).	Student Edition: (A) 75 (K) 41-44 <i>National Geographic</i> 48 <i>Section Review</i> 44 (#2) <i>Standardized Test Practice</i> 69 (#23) Teacher Wraparound Edition: (K) ACT 42; MM 41, 73; QD 44; TPK 45		
d.	Describe the limitations of using models to represent atoms (e.g., distance between particles in atoms cannot be represented to scale in models, the motion of electrons cannot be described in most models).	Student Edition: (K) 16 <i>Launch Lab</i> 7 Teacher Wraparound Edition: (A) DI 69		
e.	Investigate and report how our knowledge of the structure of matter has been developed over time.	Student Edition: (K) 8-17 <i>Science and History</i> 32 Teacher Wraparound Edition: (K) ACT 14; MM 9; R 17; SJ 14		
Objective 1.2: Accurately measure the characteristics of matter in different states.				
a.	Identify evidence that particles are in constant motion.	Student Edition: (A) 77 <i>MiniLab</i> 77 (K) 40-44, 45-46, 49-62 Teacher Wraparound Edition: (A) LD 78 (K) ACT 42; QD 44; TPK 45		

OBJECTIVES & INDICATORS		Coverage in <i>Student Edition (SE)</i> and <i>Teacher Edition (TE)</i> (pg #'s, etc.)	Coverage in <i>Ancillary Material</i> (titles, pg #'s, etc.)	<i>Not covered in TE, SE or ancillaries</i> ✓
b.	Compare the motion of particles at various temperatures by measuring changes in the volume of gases, liquids, or solids.	Teacher Wraparound Edition: (K) ACT 58; LD 43		
c.	Design and conduct an experiment investigating the diffusion of particles.	Student Edition: (A) <i>MiniLab</i> 77 Teacher Wraparound Edition: (K) QD 44		
d.	Describe the relationship between mass and volume as it relates to density.	Student Edition: (F) <i>Lab</i> 26-27 (K) 59 <i>Design Your Own Lab</i> 62-63 <i>MiniLab</i> 74, 75 <i>Standardized Test Practice</i> 95 (#16) Teacher Wraparound Edition: (K) A 71; QD 76		
e.	Design a procedure to measure mass and volume of gases.			
Objective 1.3: Investigate the motion of particles.				
a.	Identify evidence that particles are in constant motion.	Student Edition: (A) 77 <i>MiniLab</i> 77 (K) 40-44, 45-46, 49-62 Teacher Wraparound Edition: (A) LD 78 (K) ACT 42; QD 44; TPK 45		
b.	Compare the motion of particles at various temperatures by measuring changes in the volume of gases, liquids, or solids.	Teacher Wraparound Edition: (K) ACT 58; LD 43		
c.	Design and conduct an experiment investigating the diffusion of particles.	Student Edition: (A) <i>MiniLab</i> 77 Teacher Wraparound Edition: (K) QD 44		

OBJECTIVES & INDICATORS		Coverage in <i>Student Edition (SE)</i> and <i>Teacher Edition (TE)</i> (pg #'s, etc.)	Coverage in <i>Ancillary Material</i> (titles, pg #'s, etc.)	<i>Not covered in TE, SE or ancillaries</i> ✓
d.	Formulate and test a hypothesis on the relationship between temperature and motion.	Students can formulate hypotheses prior to the activities in: Student Edition: (A) <i>MiniLab 77</i> (K) <i>Lab 53</i> Teacher Wraparound Edition: (K) ACT 58; LD 43		
e.	Describe the impact of expansion and contraction of solid materials on the design of buildings, highways, and other structures.	Student Edition: (K) 45-46		
STANDARD II: Students will understand the relationship between properties of matter and Earth's structure.				
Percentage of coverage in the <i>student and teacher edition</i> for Standard II: _____ %		Percentage of coverage not in student or teacher edition, but covered in the <i>ancillary material</i> for Standard II: _____ %		
Objective 2.1: Examine the effects of density and particle size on the behavior of materials in mixtures.				
a.	Compare the density of various objects to the density of known earth materials.	Student Edition: (K) <i>Chapter Review 67 (#24)</i> Teacher Wraparound Edition: (F) ACT 21 (K) A 61; IL 60		
b.	Calculate the density of earth materials (e.g., rocks, water, air).	Student Edition: (F) <i>Lab 26-27</i> (K) <i>MiniLab 74</i> Teacher Wraparound Edition: (K) A 71; QD 76		

OBJECTIVES & INDICATORS		Coverage in <i>Student Edition (SE)</i> and <i>Teacher Edition (TE)</i> (pg #'s, etc.)	Coverage in <i>Ancillary Material</i> (titles, pg #'s, etc.)	<i>Not covered in TE, SE or ancillaries</i> ✓
c.	Observe and describe the sorting of earth materials in a mixture based on density and particle size (e.g., sorting grains of sand of the same size with different densities, sort materials of different particle size with equal densities).	Student Edition: (G) 71, 76-77 <i>Applying Science</i> 77 <i>Design Your Own Lab</i> 82-83 Teacher Wraparound Edition: (G) LD 70; TPK 76		
d.	Relate the sorting of materials that can be observed in streambeds, road cuts, or beaches to the density and particle size of those materials.	Student Edition: (G) 71, 76-77 <i>Applying Science</i> 77 <i>Chapter Review</i> 87 (#24) Teacher Wraparound Edition: (F) D 51 (G) LD 70; TPK 756		
e.	Design and conduct an experiment that provides data on the natural sorting of various earth materials.	Student Edition: (G) <i>Design Your Own Lab</i> 82-83 Teacher Wraparound Edition: (G) AIL 83; LD 70		
Objective 2.2: Analyze how density affects Earth's structure.				
a.	Compare the densities of Earth's atmosphere, water, crust, and interior layers.	Student Edition: (F) 106, 111, 135-136		
b.	Relate density to the relative positioning of Earth's atmosphere, water, crust, and interior.	The relative positioning of the Earth's crust and interior is discussed in: Student Edition: (F) 135-136 In classroom discussion, the concept can be extended to include water and the atmosphere.		

OBJECTIVES & INDICATORS		Coverage in <i>Student Edition (SE)</i> and <i>Teacher Edition (TE)</i> (pg #'s, etc.)	Coverage in <i>Ancillary Material</i> (titles, pg #'s, etc.)	<i>Not covered in TE, SE or ancillaries</i> ✓
c.	Model the layering of Earth's atmosphere, water, crust, and interior due to density differences.	Student Edition: (F) 106, 135-136 <i>MiniLab</i> 111 (G) 44-45 Teacher Wraparound Edition: (F) DI 136 (G) LD 46; R 48		
d.	Distinguish between models of Earth with accurate and inaccurate attributes.	Student Edition: (G) 18-23 <i>Model and Invent Lab</i> 26-27 Teacher Wraparound Edition: (G) ACT 20, 21; LD 19; QD 19		
STANDARD III: Students will understand that the organs in an organism are made of cells that have structures and perform specific life functions.				
Percentage of coverage in the <i>student and teacher edition</i> for Standard III: _____ %		Percentage of coverage not in student or teacher edition, but covered in the <i>ancillary material</i> for Standard III: _____ %		
Objective 3.1: Observe and describe cellular structures and functions.				
a.	Use appropriate instruments to observe, describe, and compare various types of cells (e.g., onion, diatoms).	Student Edition: (A) <i>Lab</i> 48 (B) <i>Lab</i> 14 Teacher Wraparound Edition: (A) A 48; ACT 45; QD 42 (B) ACT 12; QD 12		
b.	Observe and distinguish the cell wall, cell membrane, nucleus, chloroplast, and cytoplasm of cells.	Student Edition: (A) 41-42 <i>Lab</i> 48 (B) 9 <i>Lab</i> 14		

OBJECTIVES & INDICATORS		Coverage in <i>Student Edition (SE)</i> and <i>Teacher Edition (TE)</i> (pg #'s, etc.)	Coverage in <i>Ancillary Material</i> (titles, pg #'s, etc.)	<i>Not covered in TE, SE or ancillaries</i> ✓
c.	Differentiate between plant and animal cells based on cell wall and cell membrane.	Student Edition: (A) 41-42, 43 <i>Lab 48</i> (B) 63, 64-65 Teacher Wraparound Edition: (A) A 48; QD 41; R 47		
d.	Model the cell processes of diffusion and osmosis and relate this motion to the motion of particles.	Student Edition: (A) 76-78 <i>MiniLab 77</i> <i>Lab 82</i> Teacher Wraparound Edition: (A) IL 78; LD 78		
e.	Gather information to report on how the basic functions of organisms are carried out within cells (e.g., extract energy from food, remove waste, produce their own food).	Student Edition: (A) 44-46, 80, 83-87 <i>National Geographic 81</i> <i>Lab 88-89</i> (B) 9-10, 63, 124-125, 127-131 Teacher Wraparound Edition: (B) UA 129		
Objective 3.2: Identify and describe the function and inter-dependence of various organs and tissues.				
a.	Order the levels of organization from simple to complex (e.g., cell, tissue, organ, system, organism).	Student Edition: (A) 47 <i>Section Review 47 (#3)</i> <i>Chapter Review 62 (#18)</i>		
b.	Match a particular structure to the appropriate level (e.g., heart to organ, cactus to organism, muscle to tissue).	Student Edition: (A) 47 <i>Chapter Review 63 (#24)</i>		
c.	Relate the structure of an organ to its component parts and the larger system of which it is a part.	Student Edition: (A) 47 Teacher Wraparound Edition: (A) RC 47		

OBJECTIVES & INDICATORS		Coverage in Student Edition (SE) and Teacher Edition (TE) (pg #'s, etc.)	Coverage in Ancillary Material (titles, pg #'s, etc.)	Not covered in TE, SE or ancillaries ✓
d.	Describe how the needs of organisms at the cellular level for food, air, and waste removal are met by tissues and organs (e.g., lungs provide oxygen to cells, kidneys remove wastes from cells).	Student Edition: (A) 47 (B) 74-77, 124-130 <i>Integrate Health 77</i> Teacher Wraparound Edition: (A) RC 47 (B) IH 77		
STANDARD IV: Students will understand that offspring inherit traits that make them more or less suitable to survive in the environment.				
Percentage of coverage in the student and teacher edition for Standard IV: _____ %		Percentage of coverage not in student or teacher edition, but covered in the ancillary material for Standard IV: _____ %		
Objective 4.1: Compare how sexual and asexual reproduction passes genetic information from parent to offspring.				
a.	Distinguish between inherited and acquired traits.	Student Edition: (A) 116-117, 128, 136-142 Teacher Wraparound Edition: (A) IL 129; TFYI 139; TPK 128		
b.	Contrast the exchange of genetic information in sexual and asexual reproduction (e.g., number of parents, variation of genetic material).	Student Edition: (A) 103, 106-109 <i>Section Review 111 (#4)</i> (B) 10, 32, 94-96 <i>MiniLab 95</i> Teacher Wraparound Edition: (B) A 93, 97; D 97; R 97		

OBJECTIVES & INDICATORS		Coverage in <i>Student Edition (SE)</i> and <i>Teacher Edition (TE)</i> (pg #'s, etc.)	Coverage in <i>Ancillary Material</i> (titles, pg #'s, etc.)	<i>Not covered in TE, SE or ancillaries</i> ✓
c.	Cite examples of organisms that reproduce sexually (e.g., rats, mosquitoes, salmon, sunflowers) and those that reproduce asexually (e.g., hydra, planaria, bacteria, fungi, cuttings from house plants).	Student Edition: (A) 103, 106-107 (B) 10, 32, 47, 94-96 <i>Science Online</i> 96 Teacher Wraparound Edition: (A) LD 102		
d.	Compare inherited structural traits of offspring and their parents.	Student Edition: (A) 136, 141-142 <i>Chapter Review</i> 151 (#25) <i>National Geographic</i> 131 (B) 94 <i>MiniLab</i> 95 Teacher Wraparound Edition: (A) TPK 128, 136; VL 141		
Objective 4.2: Relate the adaptability of organisms in an environment to their inherited traits and structures.				
a.	Predict why certain traits (e.g., structure of teeth, body structure, coloration) are more likely to offer an advantage for survival of an organism.	Student Edition: (A) 130, 159 <i>Launch Lab</i> 155 <i>Lab</i> 164 (B) 64-65 Teacher Wraparound Edition: (A) A 155; ACT 158; QD 158 (B) CU 67		
b.	Cite examples of traits that provide an advantage for survival in one environment but not other environments.	Student Edition: (A) <i>Lab</i> 164 (B) 64-65 <i>Section Review</i> 67 (#3) Teacher Wraparound Edition: (A) A 164 (B) ACT 65; R 67		

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c.	Cite examples of changes in genetic traits due to natural and manmade influences (e.g., mimicry in insects, plant hybridization to develop a specific trait, breeding of dairy cows to produce more milk).	Student Edition: (A) 142, 145, 158, 160, 161 (B) <i>Science and Society</i> 116 (G) 157-158 <i>Lab</i> 169 Teacher Wraparound Edition: (A) ACT 158; CU 163; R 163 (B) INV 116		
d.	Relate the structure of organs to an organism's ability to survive in a specific environment (e.g., hollow bird bones allow them to fly in air, hollow structure of hair insulates animals from hot or cold, dense root structure allows plants to grow in compact soil, fish fins aid fish in moving in water).	Student Edition: (B) 64-65, 74-76 Teacher Wraparound Edition: (A) ACT 158; DI 158 (B) ACT 76; LD 65; TFYI 75		
STANDARD V: Students will understand that structure is used to develop classification systems.				
Percentage of coverage in the <i>student and teacher edition</i> for Standard V: _____ %		Percentage of coverage not in student or teacher edition, but covered in the <i>ancillary material</i> for Standard V: _____ %		
Objective 5.1: Classify based on observable properties.				
a.	Categorize nonliving objects based on external structures (e.g., hard, soft).	Student Edition: (G) <i>Lab</i> 113 (K) <i>Lab</i> 77, 117 Teacher Wraparound Edition: (A) ACT 166 (F) A 18; AIL 26; DI 42 (K) CU 23		

OBJECTIVES & INDICATORS		Coverage in <i>Student Edition (SE)</i> and <i>Teacher Edition (TE)</i> (pg #'s, etc.)	Coverage in <i>Ancillary Material</i> (titles, pg #'s, etc.)	<i>Not covered in TE, SE or ancillaries</i> ✓
b.	Compare living, once living, and nonliving things.	Student Edition: (A) 16-19, 21, 54, 169-171, 172-175 <i>Science Online</i> 167 (B) <i>Lab</i> 14, 43, 102 (G) <i>Lab</i> 113 (K) <i>Lab</i> 77, 117 Teacher Wraparound Edition: (A) DI 17 (B) CU 13; D 33		
c.	Defend the importance of observation in scientific classification.	Student Edition: (A) 24-25 <i>Lab</i> 29 (B) <i>Lab</i> 14 (G) <i>Lab</i> 113 (K) <i>Lab</i> 77 Teacher Wraparound Edition: (A) IL 25; TPK 24 (B) A 13; QD 12		
d.	Demonstrate that there are many ways to classify things.	Student Edition: (A) 24-25 <i>Lab</i> 29 (B) 67 <i>Applying Science</i> 41 (K) <i>Lab</i> 77 Teacher Wraparound Edition: (A) A 29; DI 25; TFYI 26 (B) ACT 34 (F) AIL 26		

OBJECTIVES & INDICATORS		Coverage in <i>Student Edition (SE)</i> and <i>Teacher Edition (TE)</i> (pg #'s, etc.)	Coverage in <i>Ancillary Material</i> (titles, pg #'s, etc.)	<i>Not covered in TE, SE or ancillaries</i> ✓
Objective 5.2: Use and develop a simple classification system.				
a.	Using a provided classification scheme, classify things (e.g., shells, leaves, rocks, bones, fossils, weather, clouds, stars, planets).	Student Edition: (A) 28, 41, 166 (B) Lab 83 (F) Lab 56-57 (G) Lab 113 (K) 22-23 Lab 24 Teacher Wraparound Edition: (A) ACT 28, 166 (B) A 82 (K) A 23		
b.	Develop a classification system based on observed structural characteristics.	Student Edition: (A) Launch Lab 7 Lab 29 (B) Model and Invent Lab 52-53 (K) Lab 77 Teacher Wraparound Edition: (A) A 29 (B) A 83; ACT 34 (F) AIL 56		
c.	Generalize rules for classification.	Student Edition: (A) Lab 29 Teacher Wraparound Edition: (A) CC 26; TPK 24 (B) TPK 32		
d.	Relate the importance of classification systems to the development of science knowledge.	Student Edition: (A) 24-27 (F) Lab 56-57 (K) 19 Teacher Wraparound Edition: (A) TFYI 26		

OBJECTIVES & INDICATORS		Coverage in <i>Student Edition (SE)</i> and <i>Teacher Edition (TE)</i> (pg #'s, etc.)	Coverage in <i>Ancillary Material</i> (titles, pg #'s, etc.)	<i>Not covered in TE, SE or ancillaries</i> ✓
e.	Recognize that classification is a tool made by science to describe perceived patterns in nature.	Student Edition: (A) 24-25 (G) Lab 113 (K) 19 Lab 117 Teacher Wraparound Edition: (B) QD 12 (K) ACT 20; TFYI 20		
Objective 5.3: Classify organisms using an orderly pattern based upon structure.				
a.	Identify types of organisms that are not classified as either plant or animal.	Student Edition: (A) <i>Reference Handbook</i> 223-224 (B) 8-13, 32-42, 44-51 <i>Integrate Earth Science</i> 12 <i>Science Online</i> 45 Teacher Wraparound Edition: (B) D 33, 45; TPK 8, 44		
b.	Arrange organisms according to kingdom (i.e., plant, animal, monera, fungi, protist).	Student Edition: (A) 25 <i>Reference Handbook</i> 223-226 (B) 11-13, 67 <i>Applying Science</i> 41		
c.	Use a classification key or field guide to identify organisms.	Student Edition: (A) 28 (B) <i>Model and Invent Lab</i> 52-53 Lab 83 Teacher Wraparound Edition: (A) ACT 28		
d.	Report on changes in classification systems as a result of new information or technology.	Student Edition: (A) 171 Teacher Wraparound Edition: (B) VL 11		