

Textbook Alignment to the Utah 7th Grade Integrated Science Core Curriculum Rubric

Title _____ ISBN# _____			
Publisher: _____			
Name of Person(s) conducting alignment and evaluation: _____			
Overall percentage of coverage of the Utah State Core Curriculum: _____%			
Standard I: Students will understand the structure of matter.			
Percentage of coverage for Standard I: %			
Objectives	Indicators	If covered, appropriate page #'s	Comments on coverage
Objective 1.1: Describe the structure of matter in terms of atoms and molecules.	a. Recognize that atoms are too small to see.		
	b. Relate atoms to molecules (e.g., atoms combine to make molecules).		
	c. Diagram the arrangement of particles in the physical states of matter (i.e., solid, liquid, gas).		
	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).		
	e. Investigate and report how our knowledge of the structure of matter has been developed over time.		
Objective 1.2: Accurately measure the characteristics of matter in different states.	a. Use appropriate instruments to determine mass and volume of solids and liquids and record data.		
	b. Use observations to predict the relative density of various solids and liquids.		
	c. Calculate the density of various solids and liquids.		
	d. Describe the relationship between mass and volume as it relates to density.		
	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.		
	b. Compare the motion of particles at various temperatures by measuring changes in the volume of gases, liquids, or solids.		
	c. Design and conduct an experiment investigating the diffusion of particles.		

	d. Formulate and test a hypothesis on the relationship between temperature and motion.		
	e. Describe the impact of expansion and contraction of solid materials on the design of buildings, highways, and other structures.		
Standard II: Students will understand the relationship between properties of matter and Earth's structure.			
Percentage of coverage for Standard II: %			
Objectives	Indicators	If covered, appropriate page #'s	Comments on coverage
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.		
	b. Calculate the density of earth materials (e.g., rocks, water, air).		
	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).		
	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.		
	e. Design and conduct an experiment that provides data on the natural sorting of various earth materials.		
Objective 2.2: Analyze how density affects Earth's structure.	a. Compare the densities of Earth's atmosphere, water, crust, and interior layers.		
	b. Relate density to the relative positioning of Earth's atmosphere, water, crust, and interior.		
	c. Model the layering of Earth's atmosphere, water, crust, and interior due to density differences.		
	d. Distinguish between models of Earth with accurate and inaccurate attributes.		
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 for Standard III: %			
Objectives	Indicators	If covered, appropriate page #'s	Comments on coverage
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).		
	b. Observe and distinguish		

	the cell wall, cell membrane, nucleus, chloroplast, and cytoplasm of cells.		
	c. Differentiate between plant and animal cells based on cell wall and cell membrane.		
	d. Model the cell processes of diffusion and osmosis and relate this motion to the motion of particles.		
	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).		
Objective 3.2: Identify and describe the function and interdependence of various organs and tissues.	a. Order the levels of organization from simple to complex (e.g., cell, tissue, organ, system, organism).		
	b. Match a particular structure to the appropriate level (e.g., heart to organ, cactus to organism, muscle to tissue).		
	c. Relate the structure of an organ to its component parts and the larger system of which it is a part.		
	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).		
Standard IV: Students will understand that offspring inherit traits that make them more or less suitable to survive in the environment.			
Percentage of coverage for Standard IV: %			
Objectives	Indicators	If covered, appropriate page #'s	Comments on coverage
Objective 4.1: Compare how sexual and asexual reproduction passes genetic information from parent to offspring.	a. Distinguish between inherited and acquired traits.		
	b. Contrast the exchange of genetic information in sexual and asexual reproduction (e.g., number of parents, variation of genetic material).		
	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).		
	d. Compare inherited structural traits of offspring and their parents.		
Objective 4.2: Relate the adaptability of organisms in an environment to	a. Predict why certain traits (e.g., structure of teeth, body structure, coloration)		

their inherited traits and structures.	are more likely to offer an advantage for survival of an organism.		
	b. Cite examples of traits that provide an advantage for survival in one environment but not other environments.		
	c. 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).		

Standard V: Students will understand that structure is used to develop classification systems.

Percentage of coverage for Standard V: %

Objectives	Indicators	If covered, appropriate page #'s	Comments on coverage
Objective 5.1: Classify based on observable properties.	a. Categorize nonliving objects based on external structures (e.g., hard, soft).		
	b. Compare living, once living, and nonliving things.		
	c. Defend the importance of observation in scientific classification.		
	d. Demonstrate that there		

	are many ways to classify things.		
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).		
	b. Develop a classification system based on observed structural characteristics.		
	c. Generalize rules for classification.		
	d. Relate the importance of classification systems to the development of science knowledge.		
	e. Recognize that classification is a tool made by science to describe perceived patterns in nature.		
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.		
	b. Arrange organisms according to kingdom (i.e., plant, animal, monera, fungi, protist).		
	c. Use a classification key or field guide to identify organisms.		
	d. Report on changes in classification systems as a result of new information or		

	technology.		
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General Rubric

Review Category Curriculum Content Coverage	High Quality - 3	2	1	0	NA	Comments
Content matches the standards and objectives of the Utah Core Curriculum.	80% of the Utah Core and objectives are covered. Objectives are clearly stated with measurable outcomes.	70% of the Utah Core and objectives are covered. Objectives are clearly stated with measurable outcomes.	50% of the Utah Core and objectives are covered.	Less than 50% of the Utah Core and objectives are covered		
Content is delivered in an appropriate sequence.	80% of the program content is covered in an appropriate sequence matching the Utah Core.	70% of the program content is covered in an appropriate sequence matching the Utah Core.	50% of the program content is covered in an appropriate sequence matching the Utah Core.	Less than 50% of the program content is covered in an appropriate sequence matching the Utah Core.		
Content is covered with appropriate depth.	The program provides 80% or more of the necessary depth needed for appropriate instruction.	The program provides 70% or less of the necessary depth needed for appropriate instruction.	The program provides 50% or less of the necessary depth needed for appropriate instruction.	The program lacks the necessary depth needed for appropriate instruction.		
Content endorses sound research-based practices.	The program utilizes 80% or more of current research-based practices.	The program utilizes 70% or less of current research-based practices.	The program utilizes 50% or less of current research-based practices.	The program does not utilize current research-based practices.		
Content is presented accurately and in an	Materials reflect current content	Materials have some content	Materials show many content inaccuracies	Materials have major content		

age-appropriate manner.	knowledge without content bias. Materials utilize cross-curricular references and experiences. Materials are age appropriate.	inaccuracies, but do not show content bias. Materials utilize some cross-curricular references. Materials are 70% age appropriate	and some content bias. Materials have very limited cross curricular references. Materials are approximately 50% age appropriate.	inaccuracies. Materials have no cross curricular references. Materials are not age appropriate.		
Content is engaging to the student.	80% or more of the materials and activities are interesting and engaging to the student promoting purposeful learning.	Less than 80% of the materials and activities are interesting and engaging to the student promoting purposeful learning.	50% or less of the materials and activities are interesting and engaging to the student promoting purposeful learning.	Very little, if any, of the materials and activities are interesting and engaging to the student promoting purposeful learning.		
Content is differentiated to meet different abilities and needs.	There are appropriate accommodations for various developmental levels acknowledging prerequisite skills and knowledge.	70% of the program provides appropriate accommodations for various developmental levels acknowledging prerequisite skills and knowledge.	50% of the program provides appropriate accommodations for various developmental levels acknowledging prerequisite skills and knowledge.	There are few or no appropriate accommodations for various developmental levels with little acknowledgment of needed prerequisite skills and knowledge.		
Review Category Physical Qualities	High Quality - 3	2	1	0	NA	Comments
Student materials provide appropriate print, illustrations and text features.	Student materials provide appropriate use of font, illustrations and text features, (e.g., illustrations, graphs, tables).	70% of the student material provides appropriate use of font, illustrations and text features, (e.g., illustrations, graphs, tables).	50% of the student material provides appropriate use of font, illustrations and text features, (e.g., illustrations, graphs, tables).	The student materials lack appropriate use of font, illustrations, and text features, (e.g., illustrations, graphs, tables).		
Student materials provide table of	Student materials provide necessary	Student materials provide some table	Student materials provide a limited	Student materials provide very little,		

contents, glossary, index, and etc.	table of contents, indicies, glossaries, and other references to assist and guide students, parents, and teachers.	of contents, indicies, glossaries, and other references to assist and guide students, parents, and teachers.	amount of table of contents, indicies, glossaries, and other references to assist and guide students, parents, and teachers.	if any, table of contents, indicies, glossaries, and other references to assist and guide students, parents, and teachers.		
Student materials are durable.	Student materials are securely bound and reinforced.	Student materials are adequately hardbound.	Student materials have secure bindings.	Student materials have inferior bindings.		
Teacher materials are easy to use.	Teacher materials are well organized with easy to read font and good correlation with student materials.	Teacher materials are organized with easy to read font, and follow correlation with student materials.	Teacher materials are somewhat organized with hard to read font and layout. Materials provide difficult to follow correlation with student materials.	Materials are disorganized with hard to read font for teachers. Layout provides little or no correlation to student materials.		
Teacher material is durable.	Teacher materials are securely bound and reinforced while staying open and flat for teaching.	Teacher materials are adequately hardbound while staying open and flat for teaching	Teacher materials have secure bindings but do not open and lay flat to facilitate teaching.	Teacher materials have inferior bindings but do lay flat to facilitate teaching.		
Review Category Technology Qualities	High Quality - 3	2	1	0	NA	Comments
Technology provided is user friendly.	Program provides menus that are easy to read and follow. Program is user-friendly to install and requires a minimal level of computer expertise. Manuals and directions are understandable.	Program provides menus that are generally easy to read and follow. Installation requires little computer expertise. Manuals and directions are simple to understand.	Program menus are easy to read. Manuals might have to be read in detail to understand operation of technology, (e.g., laser remote, software). Installation might require some knowledge or	Menus are not descriptive and hard to follow. Installation requires expertise. No manuals or written instructional materials are provided.		

			expertise. Manuals are included.			
Technology provided enhances the learning experience.	Technology provided is appropriate giving additional support for student learning.	Technology provided is appropriate giving some additional support for student learning.	Limited technology is provided giving little support for student learning.	No technology is provided.		
Technology has quality audio/visual attributes.	Program provides high quality audio and visual effects.	Program provides good audio and visual effects.	Program audio and visual effects are of poor quality.	No technology is available.		
Review Category Ancillary Materials	High Quality - 3	2	1	0	NA	Comments
Student ancillary materials provide appropriate supplemental instruction.	Program provides high quality student ancillary materials that enhance and supplement the delivery of instruction.	Program provides adequate student ancillary materials to enhance and supplement the delivery of instruction.	Program provides some student ancillary materials that are of limited value to supplement and enhance the delivery of instruction.	The program provides no student ancillary materials or student ancillary materials are of such poor quality and have little correlation to learning objectives that they are of no value.		
Student ancillary materials are easy to access and utilize.	Student ancillary materials are easy to access, are durable and easy to utilize.	Student ancillary materials are easy to access, are somewhat durable requiring some modification to utilize.	Student ancillary materials are difficult to access and require modification to utilize.	Student ancillary materials are of such poor quality or difficult to prepare or access that they are of little or no value.		
Parent ancillary materials are appropriate and support desired student learning	Parent ancillary materials are appropriate providing good	Parent ancillary materials are appropriate providing adequate	Parent ancillary materials are not always appropriate nor do they provide	There are no parent ancillary materials available.		

	support for desired student learning through home activities, homework, and practice opportunities.	support for desired student learning through a variety of opportunities and activities.	adequate support through a variety of opportunities for student learning.			
Review Category Assessment Materials	High Quality - 3	2	1	0	NA	Comments
A variety of assessment options are provided.	Program provides multiple assessment measures to monitor individual student progress at regular intervals.	Program provides some assessment measures to monitor individual student progress at regular intervals.	Program provides limited assessment measures to monitor individual student progress at regular intervals.	Program provides no assessment measures or measures are of such poor quality or correlation to student learning to be of any value.		
Assessment tools are appropriate to inform instruction and are aligned with the program, the Utah Core curriculum, and U-PASS.	Assessment tools are appropriate to inform the major areas of instruction and are aligned with the program and the Utah Core curriculum and U-PASS.	Assessment tools are appropriate to inform some areas of the instructional program and are adequately aligned with the program and the Utah Core curriculum and U-PASS.	Assessment tools are appropriate to inform limited areas of the instructional program and are poorly aligned with the program and the Utah Core curriculum and U-PASS.	Assessment tools are not appropriate to inform areas of the instructional program and are not aligned with the program and the Utah Core curriculum and U-PASS.		

Assessment tools are easily accessible and utilized.	Assessment tools are easily accessible with a limited amount of training or expertise.	Assessment tools are accessible with some amount of training or expertise needed.	Assessment tools are difficult to access and require extensive training.	Assessment tools are not accessible.		
Category Universal Access	High Quality - 3	2	1	0	NA	Comments
Program content	Program provides	Program provides	Program provides	Program provides		

accurately reflects diverse populations.	ways to adapt curriculum for all students, (e.g., special learning needs, learning disabilities, ELL, and advanced learners).	some ways to adapt curriculum to meet special learning needs of students.	limited strategies to assist special learning needs of students.	no strategies to assist special learning needs of students.		
Program contents provides for the development of healthy attitudes and values.	Program accurately portrays and promotes understanding of cultural, racial, religious and diversity in society.	Program accurately portrays and promotes some understanding of cultural, racial, religious and diversity in society.	Program accurately portrays and promotes a limited understanding of cultural, racial, religious and diversity in society.	Program does not accurately portray or promote an understanding of cultural, racial, religious and diversity in society.		

I have reviewed the above program and recommend the following use: (Choose one category only.)

- Instructional materials are in alignment with content philosophy and instructional strategies of the Utah Core. Materials provide comprehensive coverage of course content and support U-PASS. Materials may be used for **primary course instruction**.
- Instructional materials provide limited alignment with the Utah Core or U-PASS or have a narrow or restricted scope and sequence. Use of these materials must be supplemented with necessary missing program elements for effective instruction. Materials may be used on a **limited basis with accompanying plan** for use with additional appropriate materials to assure coverage of core requirements.
 - Materials could be used to support primary course instruction - **Tier I** of the **Utah Model for Instruction and Intervention**.
 - Materials could be used to support intervention instruction - **Tier II** of the **Utah Model for Instruction and Intervention**.
 - Materials could be used to support intervention instruction - **Tier III** of the **Utah Model for instruction and Intervention**.
- (3) Materials are not for student instructional use, but may only be used only as **teacher resource material**.
- (4) Materials are aligned to the core, developmentally appropriate, may contain valuable content information, but are not intended to be used as the source for primary instruction, but **only as student resource material**.

Materials have been reviewed, but **not adopted** because of lack of alignment, inaccurate content, misleading connotations, undesirable presentation, or are in conflict with existing law and rules, or otherwise unsuitable for use by students. **School districts are strongly cautioned against using these materials.** Materials were included in the publisher bid, but **not sampled** to the USOE or Textbook commission.

Materials were not reviewed, but may be purchased in accordance with the law and Rule **277-469-6**: Advanced placement materials, International materials, concurrent enrollment materials, library or trade books, reference materials, teacher professional materials which are not components of an integrated instructional program. Galley proofs or unfinished copies are not reviewed.

Evaluator Signature: _____

Date: _____