6th grade Earth Science	**S6E1a** Models of solar system	**S6E1b** Position of solar system	**S6E1c** Planets: Size, Features, Distance & Life	**S6E1d** Motion of objects in the sky	**S6E1e** Role of gravity in solar system	**S6E1f** Comets, asteroids, & meteors	**S6E2a** Phases of the moon	**S6E2b** Alignment during eclipses	**S6E2c** Tilt of earth & effect on seasons	**S6E3a** Water on the earth's surface	**S6E3b** Oceans: composition, location, and ocean floor	**S6E3c** Waves, currents, & tides	**S6E4a** Effect of unequal heating rates	**S6E4b** Wind systems & weather events	**S6E4c** Effect of oceans on weather	**S6E5a** Crust, mantle, core; temperature, density, and composition	**S6E5b** Rock Classification	**S6E5c** Processes that change rocks & the earth's surface	**S6E5d** Cause of geological events and lithospheric plates	**S6E5e** Effects of physical processes on geological features	**S6E5f** Fossils as evidence	**S6E5g** Soil composition	**S6E5h H**umans & erosion	**S6E5i** Conserving natural resources	S6E6a Role of sun and its relation to wind and water energy	S6E6b Identify Renewable and Nonrenewable resources
A Tangled Web										x																X
Mapping It Out										**x**																**x**
It's Clear to Me																										**X**
From H to OH																										
Pollution – Take It or Leave It										**x**	**x**															
Grab Gram																										
Stone Soup																		**X**								
Carts and Horses																										
Hitting the Mark																										
Multiple Perspectives											**x**		**x**		**X**											
A Snapshot in Time																										
Water Quality Monitoring																										
Turbidity or Not Turbidity										**x**												**x**				
Footprints on the Sand																										**x**
Looks Aren't Everything										**X**																
Setting the Standards										**X**																
Wash It Away																										
Life and Death Situation										**X**																
There is no Point to this Pollution										**X**					**x**											**X**
Washing Water										**X**																**x**
Benthic Bugs and Bioassessment										**X**																
Water Quality Windows										**X**																
Invertebrates as Indicators										**X**																
Picking Up the Pieces										**X**								**x**								
Going Underground										**x**								**x**								

7th Grade Life Science	**S7L1a** Develop dichotomous key	**S7L1b** Classifying 6 kingdoms and key	**S7L2a** Cells grow, divide, and produce	**S7L2b** Cell structures	**S7L2c** Cells, tissues, organs,	**S7L2d** Cells' needs for oxygen, food, and waste	**S7L2e** Major organ systems	**S7L3a** Roles of genes and chromosomes	**S7L3b** Compare and contrast	**S7L3c** Selective breeding	**S7L4a** Demonstrate food web energy transfer	**S7L4b** Energy movement through web	**S7L4c** Changes can affect survival.	**S7L4d** Competitive or mutually beneficial	**S7L4e** Terrestrial biomes and aquatic	**S7L5a** Changes of characteristics over successive generations	**S75b** Natural selection	**S7L5c** Fossils as evidence
A Tangled Web																		
Mapping It Out																		
It's Clear to Me																		
From H to OH																		
Pollution – Take It or Leave It																		
Grab Gram													X					
Stone Soup																		
Carts and Horses																		
Hitting the Mark																		
Multiple Perspectives																		
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Water Quality Monitoring																		
Turbidity or Not Turbidity																		
Footprints on the Sand																		
Looks Aren't Everything	X												x			x		
Setting the Standards													X					
Wash It Away						X			x							x		
Life and Death Situation						x							X					
There is no Point to this Pollution													X					
Washing Water																		
Benthic Bugs and Bioassessment						x			x				X					
Water Quality Windows						x			x				x			X		
Invertebrates as Indicators																		
Picking Up the Pieces																		
Going Underground																		

Middle School Science Characteristics	**S7CS1a** Honest, clear, accurate records	**S7CS1b** Value of hypotheses	**S7CS2a** Correct procedures for apparatus	**S7CS2b** Appropriate laboratory techniques	**S7CS2c** Identify and report safety problems	**S7CS3a** Data (using, interpreting, comparing numbers)	**S7CS3b** Mean, median, mode to analyze data	**S7CS3c** Metric system including metric to metric conversions	**S7CS3d** Conclusions based on analyzed data	**S7CS3e** Degree of precision and rounding off answers	**S7CS3f** Accuracy and precision	**S7CS4a** Appropriate technology for information	**S7CS4b** Appropriate measurement tools	**S7CS4c** Safety practices	**S7CS5a** How parts are related in other parts in a system	**S7CS5b** Models to represent	**S7CS6a** Clear Step-by-step instructions	**S7CS6b** Writing for scientific	**S7CS6c** Tables, charts, graphs	**S7CS7a** Questions claims	**S7CS7b** Identify flaws in reasoning	**S7CS7c** Question value of arguments based on data	**S7CS7d** Recognize that interpretations may vary	**S7CS8a** Trivial or significant differences in results	**S7CS8b** Critically assess the quality of data	**S7CS8c** Theories may change with new knowledge	**S7CS9a** Reasons for scientific investigations	**S7CS9b** Investigations involve collected evidence	**S7CS9c** Effect of variables on an investigation	**S7CS9d** Collaboration to design research	**S7CS9e** Accuracy is essential for credibility	**S7CS9f** Ethics of science research	**S7CS10a** Reading in all curriculum areas	**S7CS10b** Discussing books	**S7CS10c** Building vocabulary	**S7CS10d** Establishing context
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Stone Soup																																					
Carts and Horses																												x	x	x	x	x	x				
Hitting the Mark	x	x				x			x	X																											
Multiple Perspectives																					x	x	x	X													
A Snapshot in Time						X													x																		
Water Quality Monitoring												x	x	x			x	X	x									x	x	x	x	x	x				
Turbidity or Not Turbidity																																					
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Looks Aren't Everything						X						x	x	x	X	x																					
Setting the Standards						X									x	X																					
Wash It Away						X									x	X																					
Life and Death Situation						X									x	x																					
There is no Point to this Pollution						X									X	x																					
Washing Water						X									X	x																					
Benthic Bugs and Bioassessment						X									x	x																					
Water Quality Windows						X									X	x																					
Invertebrates as Indicators						X									x	x																					
Picking Up the Pieces	x																x	x	x	x	x	X															
Going Underground												x	x	x						x	x	x															

Environmental Science High School	SEV1a. Interpret biogeochemical cycles including hydrologic, nitrogen,	SEV1b. Relate energy changes to food chains, food webs, and to trophic levels in a generalized ecosystem,	SEV1c. Relate food production and quality of nutrition to population growth and the trophic levels.	SEV1d. Relate the cycling of matter and the flow of energy to the Laws of Conservation of	SEV1e. Distinguish between abiotic and biotic factors in an	**SEV2**a. Describe how the abiotic components (water, air, and energy) affect the biosphere	**SEV2**b. Recognize and give examples of the hierarchy of the biological entities of the biosphere (organisms, populations, communities,	**SEV2**c. Characterize the components that define a Biome. Abiotic Factors - to	**SEV2**d. Characterize the components that define fresh-water and marine systems.	**SEV3** a. Describe interconnections between abiotic and biotic factors,	**SEV3** b. Explain succession in terms of changes in communities through time to include changes in biomass	**SEV3** c. Explain how succession may be altered by traumatic events	**SEV3** d. Explain how biotic and abiotic factors influence populations.	**SEV3** e. Describe interactions between individuals	**SEV4** a. Differentiate between renewable and nonrenewable resources	**SEV4** b. Describe how technology is increasing the efficiency of utilization and accessibility of resources.	**SEV4** c. Describe how energy and other resource utilization	**SEV4** d. Describe the relationship of energy	**SEV4** e. Describe the commonly used fuels	**SEV4** f. Describe the need for informed decision making of	**SEV5** a. Describe factors affecting population growth of	**SEV5** b. Describe the effects of population growth,	**SEV5** c. Explain how human activities affect global and	**SEV5** d. Describe the actual and potential effects of habitat	**SEV5** e. Describe the effects and potential implications of	**SEV5** f. Describe how political, legal, social, and
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Biology High School	SB1 a. Explain the role of cell organelles for both prokaryotic and eukaryotic cells,	SB1 b. Explain how enzymes function as catalysts.	SB1 c. Identify the function of the four major macromolecules	SB1 d. Explain the impact of water on life processes .	SB2 a. Distinguish between DNA and RNA.	SB2 b. Explain the role of DNA in storing and transmitting cellular information.	SB2 c. Using Mendel's laws, explain the role of meiosis in reproductive variability.	SB2 d. Describe the relationships between changes in DNA and potential	SB3 a. Explain the cycling of energy through the processes of photosynthesis and	SB3 b. Compare how structures and function vary between the six kingdoms	SB3 c. Examine the evolutionary basis of modern classification systems	SB3 d. Compare and contrast viruses with living organisms.	SB4 a. Investigate the relationships among organisms, populations, communities,	SB4 b. Explain the flow of matter and energy through	SB4 c. Relate environmental conditions to successional	SB4 d. Assess and explain human activities that influence and modify the environment	SB4 e. Relate plant adaptations, including tropisms, to the ability to survive	SB4 f. Relate animal adaptations, including	SB5 a. Trace the history of the theory.	SB5 b. Explain the history of	SB5 c. Explain how fossil and biochemical evidence support	SB5 d. Relate natural selection to changes in organisms.	SB5 e. Recognize the role of		
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Earth Science High School	SES1 a. Describe the early evolution of the Earth and solar system.	SES1 b. Explain how the composition of the Earth's crust, mantle and core is determined	SES1 c. Describe how the decay of radioactive isotopes is used to determine the age of	SES1 d. Describe how the Earth acquired its initial oceans and atmosphere.	SES1 e. Identify the transformations that make up the rock cycle, hydrologic cycle,	SES2 a. Distinguish among types of plate tectonic settings produced by plates diverging	SES2 b. Relate modern and ancient geologic features to each kind of plate tectonic	SES2 c. Relate certain geologic hazards to specific plate tectonic settings.	SES2 d. Associate specific plate tectonic settings with the production of particular	SES2 e. Explain how plate tectonics creates and destroys sedimentary basins through	SES3 a. Describe how surface water and groundwater act as the major agents of physical	SES3 b. Explain how soil results from weathering and biological processes acting on	SES3 c. Describe the processes and hazards associated with both sudden and gradual	SES3 d. Relate the past and present actions of ice, wind, and water to landform	SES3 e. Explain the processes that transport and deposit material in terrestrial and	SES4 a. Describe and apply principles of relative age and describe how unconformities	SES4 b. Interpret the geologic history of a succession of rocks and unconformities.	SES4 c. Apply the principle of uniformitarianism to relate sedimentary rock	SES4 d. Explain how sedimentary rock units are correlated within and across regions by a	SES4 e. Use geologic maps and stratigraphic relationships to interpret major events in	SES5 a. Explain how latitudinal variations in	SES5 b. Explain the relationship between air masses and the surfaces over which they	SES5 c. Relate weather patterns to interactions among ocean currents, air masses, and	SES5 d. Describe how temperature and precipitation produce the pattern of climate	SES5 e. Describe the hazards associated with extreme weather events and climate	SES6 a. Relate the nature and distribution of life on Earth, including humans, to the	SES6 b. Relate the distribution of biomes to climate regions through time.	SES6 c. Explain how geological and ecological processes interact through time to cycle	SES6 d. Describe how fossils provide a record of shared ancestry, evolution, and	SES6 e. Identify the evolutionary innovations that most profoundly shaped Earth systems
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High School Characteristics of Science	**SCSh1 Students will evaluate the importance of curiosity, honesty, openness, and skepticism in science.**	**SCSh2 Students will use standard safety practices for all classroom laboratory and field investigations.**	**SCSh3 Students will identify and investigate problems scientifically.**	**SCSh4 Students will use tools and instruments for observing, measuring, and manipulating scientific equipment and materials.**	**SCSh5 Students will demonstrate the computation and estimation skills necessary for analyzing data and developing reasonable scientific explanations.**	**SCSh6 Students will communicate scientific investigations and information clearly.**	**SCSh7 Students will analyze how scientific knowledge is developed. Students will recognize that:**	**SCSh8 Students will understand important features of the process of scientific inquiry. Students will apply the following to inquiry learning practices:**	**SCSh9 Students will enhance reading in all curriculum areas by:**
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