



COLORADO
Science Content Standards Grades 5-8
Life's Structure and Function A
From Bacteria to Plants B
Animal Diversity C
Human Body Systems D
Ecology E
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CONTENT STANDARDS	PAGE REFERENCES
STANDARD 1: Students understand the processes of scientific investigation and design, conduct, communicate about, and evaluate such investigations. As students in grades 5-8 extend their knowledge, what they know and are able to do includes	
<ul style="list-style-type: none"> • identifying and evaluating alternative explanations and procedures; 	(A) <i>Lab: Design Your Own</i> 30-31, 146-147 (B) <i>Lab: Design Your Own</i> 22-23, 114-115 (C) <i>Lab: Design Your Own</i> 96-97 (D) <i>Lab: Design Your Own</i> 196-197 (E) <i>Lab: Design Your Own</i> 26-27
<ul style="list-style-type: none"> • using examples to demonstrate that scientific ideas are used to explain previous observations and to predict future events (for example, plate tectonics and future earthquake activity); 	(A) <i>Lab</i> 135 <i>Applying Science</i> 109 (D) <i>Lab</i> 189 <i>Lab: Design Your Own</i> 196-197 (E) <i>MiniLab</i> 96, 135 <i>Lab</i> 54-55, 111
<ul style="list-style-type: none"> • asking questions and stating hypotheses that lead to different types of scientific investigations (for example, experimentation, collecting specimens, constructing models, researching scientific literature); 	(A) <i>Lab: Design Your Own</i> 30-31, 146-147 <i>Lab: Use the Internet</i> 118-119 (B) <i>Lab: Design Your Own</i> 22-23 <i>Lab</i> 132, 140-141 <i>Lab: Model and Invent</i> 52-53 <i>Lab: Use the Internet</i> 84-85 (C) <i>Lab: Design Your Own</i> 96-97 <i>Lab: Use the Internet</i> 124-125 (D) <i>Lab: Use the Internet</i> 26-27 <i>Lab: Design Your Own</i> 196-197 (E) <i>Lab: Design Your Own</i> 26-27 <i>Lab</i> 54-55, 111
<ul style="list-style-type: none"> • creating a written plan for an investigation; 	*All of the following can incorporate a written plan. (A) <i>Lab: Design Your Own</i> 30-31, 146-147 (B) <i>Lab: Design Your Own</i> 22-23, 114-115 (C) <i>Lab: Design Your Own</i> 96-97 (D) <i>Lab: Design Your Own</i> 196-197 (E) <i>Lab: Design Your Own</i> 26-27

CONTENT STANDARDS	PAGE REFERENCES
<ul style="list-style-type: none"> using appropriate tools, technologies, and measurement units to gather and organize data; 	(A) <i>MiniLab</i> 11 <i>Lab: Design Your Own</i> 30-31, 176-177 (B) <i>Lab</i> 132 (C) <i>Lab: Design Your Own</i> 96-97 <i>Lab: Use the Internet</i> 124-125 (D) <i>Lab</i> 25, 54-55, 127, 166-167 (E) <i>Lab</i> 54-55, 111 <i>Lab: Design Your Own</i> 84-85
<ul style="list-style-type: none"> interpreting and evaluating data in order to formulate conclusions; 	(A) <i>Applying Science</i> 13, 159 <i>Lab: Design Your Own</i> 30-31 <i>Lab</i> 88-89 <i>MiniLab</i> 138 (B) <i>Lab</i> 140-141 (C) <i>Lab</i> 62-63 <i>Lab: Design Your Own</i> 96-97 (D) <i>Lab</i> 54-55 <i>Lab: Design Your Own</i> 82-83 (E) <i>Lab: Design Your Own</i> 26-27 <i>Lab</i> 54-55, 111
<ul style="list-style-type: none"> communicating results of their investigations in appropriate ways (for example, written reports, graphic displays, oral presentations); 	(A) <i>Lab: Design Your Own</i> 30-31 <i>Lab: Use the Internet</i> 118-119 (B) <i>Lab: Model and Invent</i> 52-53 <i>Lab: Use the Internet</i> 84-85 <i>Lab: Design Your Own</i> 114-115 <i>Lab</i> 140-141 (C) <i>Lab: Design Your Own</i> 96-97 <i>Lab: Use the Internet</i> 124-125 (D) <i>Lab: Use the Internet</i> 26-27 (E) <i>Lab: Design Your Own</i> 26-27 <i>Lab</i> 76, 111 <i>Lab: Use the Internet</i> 84-85
<ul style="list-style-type: none"> using metric units in measuring, calculating, and reporting results; 	(A) 14 <i>Lab: Design Your Own</i> 30-31, 176-177 <i>Applying Math</i> 46 <i>MiniLab</i> 138 (B) <i>MiniLab</i> 9 (C) <i>Applying Math</i> 52 (D) <i>Lab</i> 25, 54-55, 166-167 (E) <i>Lab</i> 54-55
<ul style="list-style-type: none"> explaining that scientific investigations sometimes result in unexpected findings that lead to new questions and more investigations; and 	(A) 11-12, 13 <i>Lab: Design Your Own</i> 30-31 <i>Oops! Accidents in Science</i> 120 TFYI 12 (B) <i>The Nature of Science</i> 2-5 <i>Lab: Design Your Own</i> 114-115 EX 5 (C) <i>The Nature of Science</i> 2-5 <i>Lab: Design Your Own</i> 96-97 (D) <i>Lab: Design Your Own</i> 136-137 (E) <i>Lab: Design Your Own</i> 26-27

CONTENT STANDARDS	PAGE REFERENCES
<ul style="list-style-type: none"> giving examples of how collaboration can be useful in solving scientific problems and sharing findings. 	(A) 12, 113 <i>Lab: Design Your Own</i> 30-31 <i>Lab: Use the Internet</i> 118-119 (B) <i>The Nature of Science</i> 2-3 (C) <i>The Nature of Science</i> 2-3 <i>Lab: Use the Internet</i> 124-125 (D) <i>The Nature of Science</i> 2-3 (E) <i>Lab: Design Your Own</i> 26-27
STANDARD 2: Physical Science: Students know and understand common properties, forms, and changes in matter and energy. (Focus: Physics and Chemistry) 2.1 Students know that matter has characteristic properties, which are related to its composition and structure.	
As students in grades 5-8 extend their knowledge, what they know and are able to do includes	
<ul style="list-style-type: none"> examining, describing, comparing, measuring, and classifying objects based on common physical and chemical properties (for example, states of matter, mass, volume, electrical charge, temperature, density, boiling points, pH, magnetism, solubility); 	(A) 70-71, 75 QD 70 DIF 71 (C) 81 <i>Applying Math</i> 82 (D) <i>Applying Math</i> 11 (E) 103 <i>MiniLab</i> 103
<ul style="list-style-type: none"> separating mixtures of substances based on their properties (for example, solubility, boiling points, magnetic properties, densities); 	(A) 71 VL 71 DIF 71
<ul style="list-style-type: none"> classifying and describing matter in terms of elements, compounds, mixtures, atoms, and molecules (for example, copper is an element, water is a compound, air is a mixture); and 	(A) 68-75 DIF 69 QD 71
<ul style="list-style-type: none"> developing simple models to explain observed properties of matter (for example, using a particle model to account for the solubility of a substance). 	(A) 74-75 MAM 74
2.2 Students know that energy appears in different forms, and can move (be transferred) and change (be transformed).	
As students in grades 5-8 extend their knowledge, what they know and are able to do includes	
<ul style="list-style-type: none"> measuring quantities associated with energy forms (for example, temperature, mass, speed, distance, electrical charge, current, voltage); and 	(E) <i>Lab</i> 54-55 <i>Lab: Model and Invent</i> 116-117
<ul style="list-style-type: none"> describing qualitative and quantitative relationships, using data and observations and graphs, associated with energy transfer or energy transformation (for example, speed of object vs. height of ramp; length of string vs. pitch of sound; electric current vs. volume of gas produced in electrolysis, with length of time kept constant). 	(C) <i>Applying Math</i> 52 (D) <i>Applying Math</i> 133

CONTENT STANDARDS	PAGE REFERENCES
2.3 Students understand that interactions can produce changes in a system, although the total quantities of matter and energy remain unchanged.	
As students in grades 5-8 extend their knowledge, what they know and are able to do includes	
<ul style="list-style-type: none"> identifying and classifying factors causing change within a system (for example, force, light, heat); 	(A) <i>MiniLab 77</i> <i>Applying Science 13</i> (B) <i>Lab 140-141</i> (C) <i>Lab: Design Your Own 96-97</i> (E) <i>Lab 111</i> <i>Lab: Model and Invent 116-117</i>
<ul style="list-style-type: none"> identifying and predicting what will change and what will remain unchanged when matter experiences an external force or energy change (for example, boiling a liquid; comparing the force, distance, and work involved in simple machines); 	(D) <i>National Geographic 16</i>
<ul style="list-style-type: none"> observing and gathering data to support the concept of conservation of mass within a closed system (for example, precipitation reaction, forming mixtures, gas production); 	See Glencoe's <i>Chemistry L</i> © 2005 SE: 40 <i>MiniLab 40</i> <i>Applying Math 42</i> <i>Section Review 45 #3</i> VL 40
<ul style="list-style-type: none"> describing, measuring (for example, temperature, mass, volume, melting point of a substance) and calculating quantities before and after a chemical or physical change within a system (for example, temperature change, mass change, specific heat); and 	(A) <i>Lab 88-89</i> QD 71 (E) <i>Lab 54-55</i> QD 52
<ul style="list-style-type: none"> describing, measuring (for example, time, distance, mass, force) and calculating quantities that characterize moving objects and their interactions within a system (for example, force, velocity, acceleration, potential energy, kinetic energy). 	(D) <i>Lab 73, 127</i>

CONTENT STANDARDS	PAGE REFERENCES
<p>STANDARD 3: Life Science: Students know and understand the characteristics and structure of living things, the processes of life, and how living things interact with each other and their environment. (Focus: Biology-- Anatomy, Physiology, Botany, Zoology, Ecology) 3.1 Students know and understand the characteristics of living things, the diversity of life, and how living things interact with each other and with their environment. As students in grades 5-8 extend their knowledge, what they know and are able to do includes</p>	
<ul style="list-style-type: none"> constructing and using classification systems based on the structure of organisms; 	<p>(A) 24-28 <i>Launch Lab 7</i> <i>Lab 29</i> <i>Reference Handbook 223-226</i> IL 25</p> <p>(B) <i>Lab: Model and Invent 52-53</i> <i>National Geographic 66</i> <i>Lab 83</i></p> <p>(C) 12-13 TFYI 9 AS 13</p>
<ul style="list-style-type: none"> describing the importance of plant and animal adaptations, including local examples; 	<p>(A) 160 <i>Launch Lab 155</i> <i>Lab 164</i> AS 155</p> <p>(B) 64-65 AC 65</p> <p>(C) 8-11 <i>MiniLab 10, 88</i> VL 11</p> <p>(E) 68-72, 74-75 <i>MiniLab 72</i> VL 39 LD 72</p>
<ul style="list-style-type: none"> creating and interpreting food chains and food webs; 	<p>(E) 20-21, 50-53 MAM 22 VL 23, 52 DIF 51 AC 51 DIV 75</p>
<ul style="list-style-type: none"> explaining the interaction and interdependence of nonliving and living components within ecosystems; and 	<p>(E) 9, 12, 20-24, 36-42, 44-49 TFYI 9 USW 37</p>
<ul style="list-style-type: none"> describing how an environment's ability to provide food, water, space, and essential nutrients determines carrying capacity. 	<p>(E) 15 <i>Applying Science 15</i> <i>National Geographic 18</i> AC 15 RC 15</p>

CONTENT STANDARDS	PAGE REFERENCES
3.2 Students know and understand interrelationships of matter and energy in living systems. As students in grades 5-8 extend their knowledge, what they know and are able to do includes	
<ul style="list-style-type: none"> describing the basic processes of photosynthesis and respiration and their importance to life (for example, set up a terrarium or aquarium and make changes such as blocking out light); 	(A) 17, 44, 84-87 <i>Lab</i> 88-89 AC 84 QD 86 VL 87 (B) 125-131 <i>MiniLab</i> 127 DS 129 QD 129 UAA 129 AS 131 (D) 93 RC 93 (E) 20-21, 50, 51-53 TFYI 52
<ul style="list-style-type: none"> comparing and contrasting food webs within and between different ecosystems (for example, grasslands, tundra, marine) and predicting the consequences of disrupting one of the organisms in a food web; 	(E) 21, 51-52 MAM 22 AC 51 VL 52 DIV 75
<ul style="list-style-type: none"> describing ways (for example, digestion, transport of nutrients by circulatory system) that multicellular organisms get food and other matter to their cells; 	(B) 75-77 (C) 16, 18, 44, 86, 90 (D) 47-53, 64-69, 74-75 <i>Launch Lab</i> 35 TTPK 47
<ul style="list-style-type: none"> explaining the recycling of materials by determining a pathway of a substance that is important for life (for example, trace water through an ecosystem); and 	(A) 20 (E) 44-47, 49 <i>National Geographic</i> 48 DIF 46, 48 DIV 49 AS 49
<ul style="list-style-type: none"> describing the role of organisms in the decomposition and recycling of dead organisms (for example, bacteria's role in the decomposition and recycling of matter from a dead animal). 	(B) 16, 51 <i>MiniLab</i> 16 LD 18 (E) 21, 46 <i>National Geographic</i> 48
3.3 Students know and understand how the human body functions, factors that influence its structures and functions, and how these structures and functions compare with those of other organisms. As students in grades 5-8 extend their knowledge, what they know and are able to do includes	
<ul style="list-style-type: none"> describing the observable components and functions of a cell (for example, cell membrane, nucleus, cytoplasm, chloroplasts; movement of molecules into and out of cells); 	(A) 40-46, 53, 76-80, 83-87 <i>National Geographic</i> 81 UAA 41 MAM 45 DIV 47 IL 78 TFYI 79

CONTENT STANDARDS	PAGE REFERENCES
<ul style="list-style-type: none"> comparing and contrasting the basic structures and functions of different types of cells (for example, single-celled organisms in pond water, Elodea, onion cell, human cheek cell); 	(A) 40-46 <i>Lab</i> 48 QD 41 VL 43 AS 47 (B) 9 <i>Lab</i> 43 DIV 13 (D) 75, 119
<ul style="list-style-type: none"> describing the growth and development of several organisms (for example, embryonic development of a vertebrate); 	(B) 104-106, 110, 112-113 (C) 50, 87 <i>MiniLab</i> 50 (D) 157, 158-160, 162-165 <i>MiniLab</i> 160 MAM 158, 163
<ul style="list-style-type: none"> describing the structures and functions of human body systems; and 	(E) 8, 14, 20, 47, 64, 80, 92, 101, 118, 146, 151, 176
<ul style="list-style-type: none"> describing and giving examples of noncommunicable diseases and communicable diseases (for example, heart disease and chicken pox). 	(E) 13, 71-72, 79, 81, 98-100, 105-106, 181-182, 185-188, 190-195 <i>National Geographic</i> 70 UAA 70 TFYI 185, 186, 187
3.4 Students know and understand how organisms change over time in terms of biological evolution and genetics. As students in grades 5-8 extend their knowledge, what they know and are able to do includes	
<ul style="list-style-type: none"> describing the purpose of body cell division and sex cell division; 	(A) 98-104, 106-109 <i>Lab</i> 105 CC 107 AC 109 AS 111
<ul style="list-style-type: none"> describing the role of chromosomes and genes in heredity (for example, genes control traits, while chromosomes are made up of many genes); and 	(A) 100, 106-107, 114, 128 UAA 100 CC 107
<ul style="list-style-type: none"> describing evidence that reveals changes or constancy in groups of organisms over geologic time. 	(A) 165-167, 169-171, 172-175 TFYI 169 (B) 63-64 VL 63 (C) 12, 14, 19, 24, 41, 47, 56, 61, 75, 84, 89, 95 <i>National Geographic</i> 94

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STANDARD 4: Earth and Space Science: Students know and understand the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space. (Focus: Geology, Meteorology, Astronomy, Oceanography) 4.1 Students know and understand the composition of Earth, its history, and the natural processes that shape it. As students in grades 5-8 extend their knowledge, what they know and are able to do includes	
<ul style="list-style-type: none"> explaining how minerals, rocks, and soils form; 	(A) 166 AC 166 SJ 166 (E) 38, 65 <i>MiniLab</i> 38 <i>Lab</i> 43 LD 38
<ul style="list-style-type: none"> explaining how fossils are formed and used as evidence to indicate that life has changed through time; 	(A) 165-167, 169, 173-175 AC 166 MAM 167 DS 174
<ul style="list-style-type: none"> modeling natural processes that shape Earth's surface (for example, weathering, erosion, mountain building, volcanic activity); and 	(A) 165 SJ 166 (B) <i>Integrate Earth Science</i> 12 IES 12 (E) 109 TFYI 43, 109
<ul style="list-style-type: none"> explaining the distribution and causes of natural events (for example, earthquakes, volcanoes, landslides). 	(E) TFYI 42
4.2 Students know and understand the general characteristics of the atmosphere and fundamental processes of weather. As students in grades 5-8 extend their knowledge, what they know and are able to do includes	
<ul style="list-style-type: none"> describing the basic composition, properties, and structure of the atmosphere (for example, the range and distribution of temperature and pressure in the troposphere and stratosphere); 	(E) 37, 104-105
<ul style="list-style-type: none"> observing, measuring, and recording changes in weather conditions (for example, humidity, temperature, air pressure, cloud types, wind, precipitation); 	(E) 39-42 <i>Applying Math</i> 40 <i>Science Stats</i> 56 DIF 39, 41 DS 41 QD 41
<ul style="list-style-type: none"> explaining how atmospheric circulation is driven by solar heating (for example, the transfer of energy by radiation, convection, conduction); and 	(E) 41 DIF 41
<ul style="list-style-type: none"> describing large-scale and local weather systems (for example, fronts, air masses, storms). 	(E) 39, 41-42 DIF 41 DS 41 QD 41 VL 56

CONTENT STANDARDS	PAGE REFERENCES
4.3 Students know major sources of water, its uses, importance, and cyclic patterns of movement through the environment.	
As students in grades 5-8 extend their knowledge, what they know and are able to do includes	
<ul style="list-style-type: none"> investigating and comparing the properties and behavior of water in its solid, liquid, and gaseous states; 	(A) 74-75 (E) 44-45 QD 45
<ul style="list-style-type: none"> describing the distribution and circulation of the world's water through oceans, glaciers, rivers, groundwater, and atmosphere; and 	(E) 44-45 IL 39 IM 45 SJ 45 DIF 82
describing the composition and physical characteristics of oceans (for example, currents, waves, features of the ocean floor, salinity).	(E) 80-81, 82 QD 80 AC 80 SJ 80
4.4 Students know the structure of the solar system, composition and interactions of objects in the universe, and how space is explored.	
As students in grades 5-8 extend their knowledge, what they know and are able to do includes	
<ul style="list-style-type: none"> describing the basic components, composition, size, and theories of origin of the solar system; 	See Glencoe's <i>Astronomy J</i> © 2005 (J) 70-72, 74, 76-81, 82-87 <i>Science Online</i> 71 <i>National Geographic Society Visualizing</i> 73 <i>Section Review</i> 81 #2-6; 87 #1-5 DI 72 SJ 72
<ul style="list-style-type: none"> explaining the effects of relative motion and positions of the Sun, Earth, and Moon (for example, seasons, eclipses, moon phases, tides); 	(E) 39, 82 FF 80
<ul style="list-style-type: none"> comparing Earth to other planets (for example, size, composition, relative distance from the Sun); and 	(A) TFYI 74
<ul style="list-style-type: none"> identifying technology needed to explore space (for example, telescopes, spectroscopes, spacecraft, life support systems). 	See Glencoe's <i>Astronomy J</i> © 2005 (J) 8-13, 15-18, 23-29 <i>Section Review</i> 13 #1,4 <i>Lab</i> 14 <i>Integrate Career</i> 18 <i>National Geographic Society Visualizing</i> 19 TF 12 AS 81
STANDARD 5:	
Students know and understand interrelationships among science, technology, and human activity and how they can affect the world.	
As students in grades 5-8 extend their knowledge, what they know and are able to do includes	
<ul style="list-style-type: none"> investigating and describing the extent of human uses of renewable and non-renewable resources (for example, forests, fossil fuels); 	(E) 94-100, 109 <i>National Geographic</i> 101 <i>Lab: Model and Invent</i> 84-85 <i>Time: Science and Society</i> 146 AC 95

CONTENT STANDARDS	PAGE REFERENCES
<ul style="list-style-type: none"> describing advantages and disadvantages that might accompany the introduction of a new technology (for example, mountain bikes, cellular telephones, pagers); 	(A) 143-145 <i>The Nature of Science</i> 2-5 <i>Integrate Environment</i> 144 CDIV 144 (B) <i>Time: Science and Society</i> 116 (E) 100 <i>National Geographic</i> 101 ISS 97
<ul style="list-style-type: none"> describing how the use of technology can help solve an individual or community problem (for example, using catalytic converters on automobiles to help reduce air pollution); and 	(A) 144-145 DIV 145 (D) 106, 194 (E) 97-100, 113-115 <i>Lab: Model and Invent</i> 116-117 TFYI 99
<ul style="list-style-type: none"> describing how people use science and technology in their professions. 	(A) <i>The Nature of Science</i> 4-5 <i>Time: Science and History</i> 60 <i>Oops! Accidents in Science</i> 120 IE 144 (B) <i>The Nature of Science</i> 2-5 <i>Integrate Career</i> 50, 125 (D) <i>Integrate Career</i> 21, 158 <i>Time: Science and History</i> 110 (E) <i>Integrate Career</i> 41, 79
STANDARD 6: Students understand that science involves a particular way of knowing and understand common connections among scientific disciplines. As students in grades 5-8 extend their knowledge, what they know and are able to do includes	
<ul style="list-style-type: none"> explaining why a controlled experiment must have comparable results when repeated; 	(A) 11-12 <i>Science Skill Handbook</i> 194 (B) <i>The Nature of Science</i> 4-5 (C) <i>The Nature of Science</i> 4-5 AC 4 (D) <i>The Nature of Science</i> 3
<ul style="list-style-type: none"> giving examples of how scientific knowledge changes as new knowledge is acquired and previous ideas are modified (for example, through space exploration); 	(A) 21, 23, 53, 112-113, 157-159 <i>National Geographic</i> 22 (D) 181-182 <i>The Nature of Science</i> 2-3 <i>Time: Science and History</i> 84
<ul style="list-style-type: none"> describing contributions to the advancement of science made by people in different cultures and at different times in history; 	(A) 22, 24-25, 112-113, 129, 157 <i>National Geographic</i> 22 <i>Time: Science and History</i> 60 CC 11 CDIV 44 (B) <i>Integrate History</i> 64 (D) 182 <i>Time: Science and History</i> 84 <i>Integrate History</i> 119 (E) <i>The Nature of Science</i> 2-5

CONTENT STANDARDS	PAGE REFERENCES
<ul style="list-style-type: none"> identifying, comparing, and predicting variables and conditions related to change (for example, climate, population, motion); 	(A) 9-12 <i>Applying Science</i> 13, 159 (B) <i>Lab: Design Your Own</i> 22-23, 114-115 <i>Lab</i> 140-141 (C) <i>Lab: Design Your Own</i> 96-97 (E) <i>Lab: Design Your Own</i> 26-27 <i>Lab</i> 54-55, 111
<ul style="list-style-type: none"> identifying and illustrating natural cycles within systems (for example, water, planetary motion, geological changes, climate); and 	(B) 16 <i>Lab: Design Your Own</i> 22-23 (C) <i>MiniLab</i> 50 (E) 44-47, 49, 64-65, 67 <i>National Geographic</i> 48, 66 <i>Time: Science and Society</i> 86 QD 45 DIF 48
<ul style="list-style-type: none"> using a model to predict change (for example, computer simulation, video sequence, stream table). 	(A) <i>MiniLab</i> 42, 77, 161 <i>Lab</i> 82 (E) <i>MiniLab</i> 96, 135 <i>Lab</i> 111 <i>Lab: Design Your Own</i> 26-27

Codes Used for TWE Pages

AC	Activity
AS	Assessment
CC	Curriculum Connection
CDIV	Cultural Diversity
DIF	Differentiated Instruction
DIV	Daily Intervention
DS	Discussion
EX	Extension
FF	Fun Fact
IE	Integrate Environment
IES	Integrate Earth Science
IL	Inquiry Lab
IM	Identifying Misconceptions
ISS	Integrate Social Studies
LD	Lab Demonstration
MAM	Make a Model
QD	Quick Demo
RC	Reading Check
SJ	Science Journal
TFYI	Teacher FYI
TTPK	Tying to Prior Knowledge
UAA	Using an Analogy
USW	Using Science Words
VL	Visual Learning