Grade 8 Science 2009 Item Map

Item #	Standard	Performance Indicator	
77-CR	Standard 1	11	S1.2c Differentiate among observations, inferences, predictions, and explanations
79-CR	Standard 1	11	M 1.1b Identify relationships among variables
70-CR	Standard 1	12	S2.1b Conduct an experiment designed by others
81-CR	Standard 1	12	M2.1a Interpolate and extrapolate from data
82-CR	Standard 1	12	S2.2d Identify independent variables, dependent variables and constants. . .
44-MC	Standard 1	13	S3.2h Use and interpret graphs and data tables
45-MC	Standard 1	13	S3.2h Use and interpret graphs and data tables
80-CR	Standard 1	13	S3.1a Organize results, using appropriate graphs, diagrams, data tables, and other models. . .
83-CR	Standard 1	13	S3.2d Formulate and defend explanations and conclusions as they relate to scientific phenomena
74-CR	Standard 6	62	2.2 Use models to study processes that cannot be studied directly.
56-CR	Standard 7	71	KI 1 Through systems thinking, people can recognize the commonalities that exist among all. . .
20-MC	Living environment	L1	1.1a Living things are composed of cells. Cells provide structure and carry. . .
21-MC	Living environment	L1	1.1b The way in which cells function is similar in all living things. Cells grow and
22-MC	Living environment	L1	1.2e The excretory system functions in the disposal of dissolved waste molecules. . .
23-MC	Living environment	L1	1.2g Locomotion, necessary to escape danger, obtain food and shelter. . .
24-MC	Living environment	L1	1.2h The nervous and endocrine systems interact to control and coordinate the body. . .
25-MC	Living environment	L1	1.2j Disease breaks down the structures or functions of an organism.. . .
27-MC	Living environment	L1	1.1c Most cells have cell membranes, genetic material, and cytoplasm.. . .
32-MC	Living environment	L1	1.1g Multicellular animals often have similar organs and specialized systems for carring out major

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33-MC	Living environment	L1	1.2d During respiration, cells use oxygen to release the energy stored in food.. . .
39-MC	Living environment	L1	1.1e Cells are organized for more effective functioning in multicellular organisms.
71-CR	Living environment	L1	1.2d During respiration, cells use oxygen to release the energy stored in food.. . .
73-CR	Living environment	L1	1.1h Living things are classified by shared characteristics on the cellular. . .
28-MC	Living environment	L2	2.1b Each gene carries a single unit of information. A single inherited trait of an individual can
65-CR	Living environment	L2	2.2c The probability of traits being expressed can be determined using models of. . .
66-CR	Living environment	L2	2.2c The probability of traits being expressed can be determined using models of. . .
26-MC	Living environment	L3	3.2a In all environments, organisms with similar needs make compete with one another. . .
29-MC	Living environment	L3	3.2d Although the time needed for change in a species is usually great. . .
36-MC	Living environment	L3	3.1b Changes in environmental conditions can affect the survival of individual. . .
49-CR	Living environment	L3	3.2c Many thousands of layers of sedimentary rock provide evidence. . .
30-MC	Living environment	L4	4.3d Patterns of development vary among animals. . .
43-MC	Living environment	L4	4.1b Fossil fuels contain stored solar energy and are considered nonrenewable. . .
64-CR	Living environment	L4	4.3e Patterns of development vary among plants. . .
31-MC	Living environment	L5	5.1c All organisms require energy to survive. The amount of energy needed. . .
34-MC	Living environment	L5	5.1f Regulation of an organism's internal environment involves sensing the internal environment. . .
35-MC	Living environment	L5	5.2e Herbivores obtain energy from plants. Carnivores obtain energy from animals. Omnivores. . .
38-MC	Living environment	L5	5.1d The methods for obtaining nutrients vary among organisms.. . .
68-CR	Living environment	L5	5.1e Herbivores obtain energy from plants. Carnivores obtain energy from animals.
67-CR	Living environment	L6	6.1b Food webs identify feeding relationships among producers, consumers. . .
69-CR	Living environment	L6	6.1a Energy flows through ecosystems in one direction, usually from the Sun. . .

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75-CR	Living environment	L6	6.2b The major source of atmospheric oxygen is photosynthesis.. . .
37-MC	Living environment	L7	7.1c In all enviroments, organisms interact with one another in many ways.
40-MC	Living environment	L7	7.1b Given adequate resources and no disease or predators, populations (including humans) increase.
41-MC	Living environment	L7	7.2c Overpopulation by any species impacts the environment. . .
42-MC	Living environment	L7	7.2d Since the Industrial Revolution, human activities have resulted in major pollution. . .
76-CR	Living environment	L7	7.1c In all enviroments, organisms interact with one another in many ways.
01-MC	Physical setting	P1	1.1b Other stars are like the Sun but are so far away that they look like points of light.
02-MC	Physical setting	P1	1.1h The apparent motions of the Sun, Moon, planets, and stars across the sky. . .
03-MC	Physical setting	P1	1.1h The apparent motions of the Sun, Moon, planets, and stars across the sky. . .
04-MC	Physical setting	P2	2.2q Hazardous weather conditions include thunderstorms, tornadoes, hurricanes, ice storms...
12-MC	Physical setting	P2	2.2g Rocks are classified according to their method of formation.. . .
13-MC	Physical setting	P2	2.2b Analysis of earthquake wave data (vibrational disturbances) leads to. . .
14-MC	Physical setting	P2	2.2e The Theory of Plate Tectonics explains how the "solid" lithosphere consists. . .
46-CR	Physical setting	P2	2.1e Rocks are composed of minerals. Only a few rock-forming minerals. . .
48-CR	Physical setting	P2	2.1e Rocks are composed of minerals. Only a few rock-forming minerals. . .
50-CR	Physical setting	P2	2.2g Rocks are classified according to their method of formation.. . .
51-CR	Physical setting	P2	2.2f Plates may collide, move apart, or slide past one another. . .
52-CR	Physical setting	P2	2.2a The interior of Earth is hot. Heat flow and movement of material within Earth
53-CR	Physical setting	P2	2.2o Fronts are boundaries between air masses. Precipitation is likely to occur. . .
54-CR	Physical setting	P2	2.2p High pressure systems usually bring fair weather. Low-pressure systems usually bring cloudy. .
55-CR	Physical setting	P2	2.2r Substances enter the atmosphere naturally and from human activity. . .

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59-CR	Physical setting	P2	2.1d The majority of the lithosphere is covered by a relatively thin layer of water. . .
72-CR	Physical setting	P2	2.1g The dynamic processes that wear away Earth's surface include weathering. . .
78-CR	Physical setting	P2	2.1f Fossils are usually found in sedimentary rocks.. . .
05-MC	Physical setting	P3	3.2a During a physical change a substance keeps its chemical composition. . .
06-MC	Physical setting	P3	3.3a All matter is made up of atoms. Atoms are far too small to see with a light. . .
15-MC	Physical setting	P3	3.1c The motion of particles helps to explain the phases (states) of matter. . .
16-MC	Physical setting	P3	3.2e The Law of Conservation of Mass states that during an ordinary chemical reaction matter. . .
17-MC	Physical setting	P3	3.2c During a chemical change, substances react in characteristic ways. . .
47-CR	Physical setting	P3	3.1a Substances have characteristic properties. . .
58-CR	Physical setting	P3	3.1b Solubility can be affected by the nature of the solute and solvent. . .
61-CR	Physical setting	P3	3.3b Atoms and molecules are perpetually in motion.. . .
07-MC	Physical setting	P4	4.1c Most activities in everyday life involve one form of energy being transformed. . .
08-MC	Physical setting	P4	4.4g Without direct contact, a magnet attracts certain materials. . .
09-MC	Physical setting	P4	4.1b Fossil fuels contain stored solar energy and are considered nonrenewable. . .
10-MC	Physical setting	P4	4.4f Without touching them, material that has been electronically charged attracts uncharged. . .
60-CR	Physical setting	P4	4.2d Most substances expand when heated and contract when cooled. . .
62-CR	Physical setting	P4	4.1e Energy can be considered to be either kinetic energy, which is the. . .
11-MC	Physical setting	P5	5.2a Every object exerts gravitational force on every other object. . .
18-MC	Physical setting	P5	5.1d Forces directly related to an object's mass and acceleration.
19-MC	Physical setting	P5	5.1b The motion of an object can be described by its position, direction of motion, and speed.
63-CR	Physical setting	P5	5.1d Forces directly related to an object's mass and acceleration.

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57-CR	Physical setting	PS	PS-11 determine the volume of a regular- and irregular-shaped solids
STA1-1	Performance Statio	S1	General Skills-6. develop and use a dichotomous key
STA1-2	Performance Statio	S1	General Skills-6. develop and use a dichotomous key
STA1-3	Performance Statio	S1	General Skills-6. develop and use a dichotomous key
STA1-4	Performance Statio	S1	General Skills-6. develop and use a dichotomous key
STA1-5	Performance Statio	S1	General Skills-6. develop and use a dichotomous key
STA1-6	Performance Statio	S1	LE-1. manipulate a compound microscope to view microscopic objects
STA1-7	Performance Statio	S1	LE-2. determine the size of a microscopic object, using a compound microscope
STA1-8	Performance Statio	S1	LE-1. manipulate a compound microscope to view microscopic objects
STA1-9	Performance Statio	S1	LE-6. classify living things according to a student-generated scheme and an established scheme
STA1-TOT	Performance Statio	S1	1 Performance Station 1 Total
STA2-1	Performance Statio	S2	General Skills-2. safely and accurately use measurement tools
STA2-2	Performance Statio	S2	2 Station 2-Task 2
STA2-3	Performance Statio	S2	2 Station 2-Task 3
STA2-4	Performance Statio	S2	General Skills-8. identify cause and effect relationships
STA2-5	Performance Statio	S2	General Skills-8. identify cause and effect relationships
STA2-6	Performance Statio	S2	General Skills-8. identify cause and effect relationships
STA2-7	Performance Statio	S2	General Skills-4. recognize and analyze patterns and trends
STA2-8	Performance Statio	S2	General Skills-4. recognize and analyze patterns and trends
STA2-TOT	Performance Statio	S2	2 Performance Station 2 Total
STA3-1	Performance Statio	S3	General Skills-3. use appropriate units for measured or calculated values

Item #	*Standard*	*Performance Indicator*	
STA3-2	Performance Statio	S3	General Skills-3. use appropriate units for measured or calculated values
STA3-3	Performance Statio	S3	General Skills-3. use appropriate units for measured or calculated values
STA3-4	Performance Statio	S3	3 Station 3-Task 4
STA3-5	Performance Statio	S3	3 Station 3-Task 5
STA3-6	Performance Statio	S3	General Skills-8. identify cause and effect relationships
STA3-7	Performance Statio	S3	General Skills-8. identify cause and effect relationships
STA3-TOT	Performance Statio	S3	3 Performance Station 3 Total