

Strand: Physical Science		
Topic: 8.PS.1 & .3 Element Information & The Periodic Table		
Level: 8th Grade		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	Sample Tasks
	The student will: Apply your knowledge of the law of conservation of mass to correctly balance a chemical equation.	
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	Sample Tasks
	Create a model of an atomic structure using the first 3 rows on the periodic table	
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	Sample Tasks
	*Recognize or recall specific vocabulary, such as: atom, electron, electron cloud, neutron, nucleus, proton, atomic number, average atomic mass, ion, isotope, mass number, nuclear decay, radioactive, group, period, periodic table, alkali metal, alkaline earth metal, density, ductility, luster, malleability, metal, transition element, halogen, metalloid, noble gas, nonmetal, semiconductor, chemical bond, compound, electron dot diagram, valence electron, bond, chemical formula, covalent bond, molecule, polar molecule, ionic bond, metallic bond, chemical equation, chemical reaction, coefficient, law of conservation of mass, product, reactant, combustion, decomposition, double replacement, single replacement, synthesis, activation energy, catalyst, endothermic, enzyme, exothermic, inhibitor	
	Performs basic processes, such as:	
	use basic information provided for an element to determine its place on the Periodic Table. use above information to find the number of protons, neutrons and electrons in an atom.	
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Physical Science		
Topic: 8.PS.6 Chemical and Physical Changes		
Level: 8th Grade		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
	The student will: Given a set of mystery powders, devise a test to determine their identities based on their physical and chemical properties (Mystery Powder Lab)	
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Analyze the properties of substances before and after substances interact to determine if a chemical reaction has occurred.	
	Perform a lab or use scenarios to analyze a substance's properties and provide evidence that a chemical reaction has occurred (for example: Ziploc Chemistry)	
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as: Atom, bond, Compound, density, Dissolve, mass, element, Physical property, Heterogeneous mixture, property, Homogeneous mixture, solubility, Matter, Physical change, Mixture, Chemical change, Substance, Chemical property, Concentration Performs basic processes, such as: identify physical and chemical properties identify physical and chemical changes list the signs that a chemical reaction has occurred compare and contrast physical vs. chemical change.	
	Answer matching or multiple choice questions using vocab terms. Look at examples to identify physical and chemical properties and changes Create a T chart comparing chemical and physical changes/properties	
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Life Science		
Topic: 8.LS.2 Inheritance (meiosis and mitosis)		
Level: 8th Grade		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
	The student will: Research and design a digital product covering a specific genetic disorder, explaining patterns of inheritance on a genetic level.	Research and design a digital product covering a specific genetic disorder, explaining patterns of inheritance on a genetic level.
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Demonstrate how genetic information is transmitted from parent to offspring through chromosomes via the process of meiosis. Explain how living things grow and develop.	Develop a model to show how genetic info is inherited through meiosis. Develop a model to show how living things grow and develop.
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as: meiosis, mitosis, gametes, somatic cells, haploid, diploid, genetic variation Performs basic processes, such as: describe the purpose of mitosis and meiosis in multi and unicellular organisms	Answer matching or multiple choice questions using vocab terms.
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Life Science		
Topic: 8.LS.5 Natural Selection		
Level: 8th Grade		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
	The student will: Given a case study, identify the factors of natural selection affecting a species' population.	Given a case study, identify the factors of natural selection affecting a species' population.
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Explain how factors affecting natural selection (Competition, genetic variations, environmental changes, and overproduction) increase or decrease a species' ability to survive and reproduce.	Simulate the process of natural selection by changing the different variables that affect natural selection Analyze data and explain how different factors affected a species' ability to survive and reproduce.
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as:	Answer matching or multiple choice questions using vocab terms. Diagram of natural selection
	evolution, natural selection, genetic variation, competition, environmental changes, overproduction, mutations, extinctions	
	Performs basic processes, such as:	
explain the steps of natural selection understand that natural selection results in evolution		
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Life Science		
Topic: 8.LS.6 DNA		
Level: 8th Grade		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
	The student will: Using a pre-existing strand of DNA, model and explain a genetic mutation in the strand.	Using a pre-existing strand of DNA, model and explain a genetic mutation in the strand.
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Demonstrate how the structures of chromatin, chromosomes, chromatids, genes, alleles and deoxyribonucleic acid (DNA) molecules are related and differ.	Create a 3-D model to represent the structure of DNA by manipulating strand to create the different forms DNA can exist as.
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as: chromatin, chromosomes, chromatids, genes, alleles, deoxyribonucleic acid, DNA bases, nucleotide	Answer matching and multiple choice questions using vocab terms Draw and label a DNA molecule
	Performs basic processes, such as: Describe the relationship between genes, chromosomes and DNA	
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Life Science		
Topic: 8.LS.7 - .8 Taxonomy and Evolution		
Level: 8th Grade		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u> Construct a dichotomous key based on shared characteristics (can peers fill out?)
	The student will: Construct a dichotomous key based on shared characteristics (can peers fill out?)	
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u> Use above key to compare fossil evidence and shared characteristics to show evolutionary relationships.
	Explain how an organism’s scientific name correlates to their shared characteristics based on taxonomic levels. Explore and predict the evolutionary relationships between species looking at the anatomical differences among modern organisms and fossil organisms.	
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will: *Recognize or recall specific vocabulary, such as: Linnaeus, taxonomy, binomial nomenclature, scientific name, kingdom, phylum, class, species, order, family, genus adaptation, dichotomous key, phylogenetic trees	<u>Sample Tasks</u> Use a dichotomous key to classify organisms based on shared traits Answer matching or multiple choice questions using vocab terms.
	Performs basic processes, such as: Recognize organisms are classified into taxonomic levels according to shared characteristics.	
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Science & Engineering Process Standard		
Topic: 8.SESP.8 Obtaining, Evaluating, and Communicating Information		
Level: 8th Grade		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u> Design an experiment, collect data and communicate results.
	The student will: Design an experiment, collect data and communicate results.	
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u> Conduct an experiment and collect data. Use data to communicate results via a line graph. Gum Lab
	Communicate clearly and articulate ideas and methods that are generated from conducting an experiment. Communicate information and ideas to others so that it could be repeated.	
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u> Create a line graph using a predetermined set of data, making sure to label all parts of the graph. Matching multiple choice vocab
	*Recognize or recall specific vocabulary, such as: independent, dependent, y-axis, x-axis, units, best-fit line, increments	
	Performs basic processes, such as: using tables, diagrams, graphs, models and equations communicating orally in writing and through extended discussions	
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Life Science		
Topic: 8.LS.11 Bacteria and Viruses		
Level: 8th Grade		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
	The student will: Ask students to research an epidemic in history such as small pox, and document efforts to create a vaccine.	Ask students to research an epidemic in history such as small pox, and document efforts to create a vaccine.
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Will understand how viruses and bacteria affect the human body.	Design an informative webpage on a bacterial/viral disease.
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as: bacteria, virus, pathogen, lytic, lysogenic, binary fission, prokaryote, antibiotic, vaccine, host Performs basic processes, such as:	Answer matching or multiple choice questions using vocab terms.
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	

Strand: Earth Science		
Topic: 8.ESS.1 and 8.ESS.3 Human Impact/Climate Change		
Level: 8th Grade		
Score 4.0 Mastery	In addition to Score 3.0, in-depth inferences, applications, and analysis indicate an extension of learning.	<u>Sample Tasks</u>
	The student will: Using level 3 research, further explore a topic on a specific human impact on the environment.	
3.5	In addition to score 3.0 performance, the student has partial success at score 4.0 content.	
Score 3.0 Proficient	The student will:	<u>Sample Tasks</u>
	Research how human consumption of finite natural resources impact the environment and climate	
2.5	The student has no major errors or omissions regarding score 2.0 content, and partial success at score 3.0 content.	
Score 2.0 Progressing	The student will:	<u>Sample Tasks</u>
	*Recognize or recall specific vocabulary, such as: Greenhouse gas, Global climate model, Deforestation, Global warming, , Remote sensing, Turbidity, Bioindicator, Nonpoint-source pollution, Nitrate, point-source pollution, Water quality, Carrying capacity, Runoff, Population, Urban sprawl, Resource, Acid precipitation, Desertification, Air Quality Index, Dispose, Greenhouse Effect, Reclamation, Particulate matter, Reforestation, Photochemical smog	
	Performs basic processes, such as:	
1.5	The student has partial success at score 2.0 content, but major errors or omissions regarding score 3.0 content.	
Score 1.0 Beginning	With help, the student has partial success at score 2.0 content and score 3.0 content.	
0.5	With help, the student has partial success at score 2.0 content but not at score 3.0 content.	
Score 0.0	Even with help, the student has no success.	