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| Topic Proficiency Scale  Strand: The Nature of Science  Cluster: Big Idea 1- The Practice of Science | | |
| **Standards: SC.8.N.1.1** Define a problem from the sixth grade curriculum, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigation of various types, such as systematic observations or experiments, identify variables, collect and organize data, interpret data in charts, tables, and graphics, analyze information, make predictions, and defend conclusions.  (also assesses SC.6.N.1.1, SC.7.N.1.1, SC.6.N.1.3, SC.7.N.1.3, SC.8.N.1.3, SC.7.N.1.4, SC.8.N.1.4) | | |
| **Learning Scale:** | | **Resource or Performance Task:** |
| 4.0  \*Above Mastery\* | * I know all of my simple and complex goals and can make in depth analysis of source material.   Example(s):   * I am able to apply scientific thinking to evaluate an investigation and distinguish between an experiment and other scientific investigation and assess the limitations and benefits of each. | Design and perform an experiment that references other studies, analyzes the results, and develops a conclusion. |
| 3.0  \*Grade Level Target\* | * I can identify test variables (independent variables) and outcome variables (depend in a given scientific investigation. * I can distinguish between experiments and investigation where variables cannot be controlled. * I can carry out the steps of the scientific method. * I am able to organize and interpret data to make a prediction and/or form a conclusion. * I am able to apply scientific thinking to evaluate an investigation. |  |
| 2.5 | * I know all of my simple goals and some of my complex goals. |  |
| 2.0  Simple Goals | * I can explain the steps of the scientific method. * I can define: observation, experiment, hypothesis, independent variable, dependent variable, control group, trial, replication, repetition, data, sample size, analyze, results, inference, prediction, conclusion |  |
| 1.0 | * With support, I can demonstrate some or all of my simple goals. |  |
| 0 | * Even with help, no success. |  |

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| Topic Proficiency Scale  Strand: The Nature of Science  Cluster: Big Idea 1- The Practice of Science | | |
| **Standards: SC.7.N.1.2** Differentiate replication (by others) from repetition (multiple trials).  (Also assess SC.6.N.1.2, SC.6.N.1.4, SC.8.N.1.2) | | |
| **Learning Scale:** | | **Resource or Performance Task:** |
| 4.0  \*Above Mastery\* | * I know all of my simple and complex goals and can make in depth analysis of source material.   Example:   * I am able to evaluate the use and importance of replication in a scientific investigation and provide examples of each for a given situation. |  |
| 3.0  \*Grade Level Target\* | * I can differentiate between replication and repetition. * I can explain why scientific methods should be replicable. * I am able to compare methods and/or results obtained in a scientific investigation. * I can evaluate the use of repeated trials or replication in a scientific investigation. | Peer Review other students’ STEM project research plans |
| 2.5 | * I know all of my simple goals and some of my complex goals. |  |
| 2.0  Simple Goals | * I can define replication and repetition. * I can identify replication and repetition in an example of a scientific investigation. * I can compare observations made by different groups using the same tools and seek reasons to explain the differences across groups. * I can compare the methods and results of investigations done by other classmates. |  |
| 1.0 | * With support, I can demonstrate some or all of my simple goals. |  |
| 0 | * Even with help, no success. |  |

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| Topic Proficiency Scale  Strand: The Nature of Science  Cluster: Big Idea 1- The Practice of Science | | |
| **Standards: SC.7.N.1.5** Describe the methods used in the pursuit of a scientific explanation as seen in different fields of science such as biology, geology, and physics.  (Also assesses SC.7.N.3.2, SC.8.N.1.5, and SC.8.E.5.10) | | |
| **Learning Scale:** | | **Resource or Performance Task:** |
| 4.0  \*Above Mastery\* | * I know all of my simple and complex goals and can make in depth analysis of source material.   Example(s):   * I am able to analyze and evaluate the benefits and limitations of various models and methods used in different fields of science. * I am able to develop a model to test a scientific claim. |  |
| 3.0  \*Grade Level Target\* | * I can describe and analyze common methods and models used in different fields of science. * I am able to identify the benefits and/or limitations of the use of common scientific models. * I can identify how technology is essential to science. | Create a one-pager about a field of science that includes methods, models, and technology used. |
| 2.5 | * I know all of my simple goals and some of my complex goals. |  |
| 2.0  Simple Goals | * I can define measurement, data collection, and computation. * I can explain that models can be three dimensional, two dimensional, and explanation, or a computer model. * I can give examples of how models and technology are used in science. |  |
| 1.0 | * With support, I can demonstrate some or all of my simple goals. |  |
| 0 | * Even with help, no success. |  |

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| Topic Proficiency Scale  Strand: The Nature of Science  Cluster: Big Idea 2- The Characteristics of Scientific Knowledge | | |
| **Standards: SC.6.N.2.2** Explain that scientific knowledge is durable because it is open to change as new evidence or interpretations are encountered.  (Also assesses SC.7.N.1.6, SC.7.N.1.7, SC.7.N.2.1, SC.8.N.1.6) | | |
| **Learning Scale:** | | **Resource or Performance Task:** |
| 4.0  \*Above Mastery\* | * I know all of my simple and complex goals and can make in depth analysis of source material.   Example(s):   * I can predict how scientific knowledge may change due to new evidence or interpretations. |  |
| 3.0  \*Grade Level Target\* | * I can explain that scientific knowledge may change as new evidence is discovered or new scientific interpretations are formed. * I can explain that scientific explanations are based on empirical evidence, logical reasoning, predictions, and modeling. * I can give examples of how and when scientific knowledge has changed as a result of new evidence. |  |
| 2.5 | * I know all of my simple goals and some of my complex goals. |  |
| 2.0  Simple Goals | * I can define scientific knowledge, empirical evidence, scientific debate, logical reasoning, predictions, modeling, validation, natural event (phenomenon) * I can recognize and explain the difference between personal opinion/interpretation and verified observation. * I can identify a change in scientific knowledge in a given example. * I can explain that empirical evidence is information that is used to help validate explanations of natural events (phenomena). |  |
| 1.0 | * With support, I can demonstrate some or all of my simple goals. |  |
| 0 | * Even with help, no success. |  |

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| Topic Proficiency Scale  Strand: The Nature of Science  Cluster: Big Idea 3- The Role of Theories, Laws, Hypotheses, and Models | | |
| **Standards: SC.7.N.3.1** Recognize and explain the difference between theories and laws and give several examples of scientific theories and the evidence that supports them.  (Also assesses SC.6.N.3.1 and SC.8.N.3.2) | | |
| **Learning Scale:** | | **Resource or Performance Task:** |
| 4.0  \*Above Mastery\* | * I know all of my simple and complex goals and can make in depth analysis of source material.   Example(s):   * I am able to provide justification to distinguish between scientific theories and laws. |  |
| 3.0  \*Grade Level Target\* | * I can explain the difference between scientific theories and laws. * I can identify examples of theories and/or laws (i.e.- law of universal gravitation, law of superposition, theory of plate tectonics, atomic theory, law of conservation of mass, law of conservation of energy, cell theory, scientific theory of evolution) * I am able to explain why theories may be modified but are rarely discarded. |  |
| 2.5 | * I know all of my simple goals and some of my complex goals. |  |
| 2.0  Simple Goals | * I can define scientific theory, scientific law, evidence, hypothesis(es), scientific model * I understand that use of the term theory in science is different than how it is used in everyday life. |  |
| 1.0 | * With support, I can demonstrate some or all of my simple goals. |  |
| 0 | * Even with help, no success. |  |

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| Topic Proficiency Scale  Strand: Earth and Space Science  Cluster: Big Idea 5- Earth in Space and Time | | |
| **Standards: SC.8.E.5.3** Distinguish the hierarchical relationships between planets and other astronomical bodies relative to solar system, galaxy, and universe, including distance, size, and composition.  (Also assesses SC.8.E.5.1 and SC.8.E.5.2) | | |
| **Learning Scale:** | | **Resource or Performance Task:** |
| 4.0  \*Above Mastery\* | * I know all of my simple and complex goals and can make in depth analysis of source material.   Example(s):   * I am able to compare relative distance and relative size in terms of light and space travel, as well as general composition of astronomical bodies in the universe. * I can make predictions about space travel and its limitations using a scale model of the universe. |  |
| 3.0  \*Grade Level Target\* | * I am able to distinguish among the relative distance, relative size, and general composition of astronomical bodies in the universe. * I can describe distances between objects in space in the context of light and space travel. * I can interpret quantitative data about space and time in a given example. | Use a graphic organizer to distinguish astronomical bodies in the universe based on relative distance, relative size, and general composition. |
| 2.5 | * I know all of my simple goals and some of my complex goals. |  |
| 2.0  Simple Goals | * I can define planet, astronomical body, galaxy, universe, solar system, astronomical units (AU), light-years, star, moon, asteroid, nebula, galaxy, dwarf planet, comet. * I can describe that the universe contains billions of galaxies and stars. |  |
| 1.0 | * With support, I can demonstrate some or all of my simple goals. |  |
| 0 | * Even with help, no success. |  |

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| Topic Proficiency Scale  Strand: Earth and Space Science  Cluster: Big Idea 5- Earth in Space and Time | | |
| **Standards: SC.8.E.5.5-** Describe and classify specific physical properties of stars: apparent magnitude (brightness), temperature (color), size, and luminosity (absolute brightness).  (Also assesses SC.8.E.5.6) | | |
| **Learning Scale:** | | **Resource or Performance Task:** |
| 4.0  \*Above Mastery\* | * I know all of my simple and complex goals and can make in depth analysis of source material.   Example(s):   * I am able to classify stars using data, observations, and physical properties like brightness (apparent magnitude), color (temperature), size and absolute brightness (luminosity) * I can evaluate models of solar properties and/or solar characteristics. | Analyze the pictorial display of data of the HR diagram to compare patterns of similarities of physical properties of stars. |
| 3.0  \*Grade Level Target\* | * I am able to identify the physical properties of stars like brightness (apparent magnitude), color (temperature), size, and absolute brightness (luminosity). * I can create models of solar properties and/or explain solar characteristics including rotation, structure of the Sun, convection, sunspots, solar flare, and prominences. | Use a visual HR model to identify the physical properties of different stars: apparent magnitude, temperature (color), size, and absolute brightness. |
| 2.5 | * I know all of my simple goals and some of my complex goals. |  |
| 2.0  Simple Goals | * I can define star, rotation, convection, sunspot, solar flare, prominences, brightness (apparent magnitude), color (temperature), and absolute brightness (luminosity). * I can explain that the Sun is a star that emits energy; some of it in the form of light. * I am able to explain that stars can be different; some are smaller, some are larger, and some appear brighter than others. * I can explain that a galaxy consists of gas, dust, and many stars, including any objects orbiting the starts and identify our home galaxy as the Milky Way. |  |
| 1.0 | * With support, I can demonstrate some or all of my simple goals. |  |
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| Topic Proficiency Scale  Strand: Earth and Space Science  Cluster: Big Idea 5- Earth in Space and Time | | |
| **Standards: SC.8.E.5.7** Compare and contrast the properties of objects in the Solar System including the Sun, planets, and moons to those of Earth, such as gravitational force, distance from the Sun, speed, movement, temperature, and atmospheric conditions. | | |
| **Learning Scale:** | | **Resource or Performance Task:** |
| 4.0  \*Above Mastery\* | * I know all of my simple and complex goals and can make in depth analysis of source material.   Example(s):   * I am able to make predictions about the characteristics of objects in the Solar System in a given scenario. |  |
| 3.0  \*Grade Level Target\* | * I am able to compare and contrast the characteristics of objects in the Solar System. * I can identify and explain the role that gravity plays in the formation and motion of planets, stars, and solar systems. * I can distinguish between various historical models of the Solar System. * I am able to identify the presence, absence, and/or relative thickness of planetary atmospheres. * I can explain the relationship between distance from the sun and length of year and/or average surface temperature. |  |
| 2.5 | * I know all of my simple goals and some of my complex goals. |  |
| 2.0  Simple Goals | * I can define planet, Sun, moon, asteroid, comet, Solar System, gravitational force, atmospheric conditions, orbital path, astronomical bodes * I can explain that orbital paths differ in shape. * I can explain the Law of Gravity. * I recognize the major common characteristic of all planets and can compare the properties of inner and outer planets. * I can identify Earth’s position in the Solar System. |  |
| 1.0 | * With support, I can demonstrate some or all of my simple goals. |  |
| 0 | * Even with help, no success. |  |

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| Topic Proficiency Scale  Strand: Earth and Space Science  Cluster: Big Idea 5- Earth in Space and Time | | |
| **Standards: SC.8.E.5.9** Explain the impact of objects in space on each other, including: 1. The Sun on the Earth, including seasons and gravitational attraction; 2. The Moon on the Earth, including phases, tides, and eclipses, and the relative position of each body. | | |
| **Learning Scale:** | | **Resource or Performance Task:** |
| 4.0  \*Above Mastery\* | * I know all of my simple and complex goals and can make in depth analysis of source material.   Example(s):   * I can create a model that depicts the impact of objects in space on each other. * I can make inferences to the relationships of objects in space on each other. |  |
| 3.0  \*Grade Level Target\* | * I am able to relate the effect of astronomical bodies on each other including the effect of the Sun and the Moon on the Earth (seasons, tides, eclipses, phases of the moon) * I can create and/or identify a diagram that shows the impact of objects in space on each other. | Gizmos- Tides |
| 2.5 | * I know all of my simple goals and some of my complex goals. |  |
| 2.0  Simple Goals | * I can define season, tide, eclipse, phase, gravity * I can explain that Earth revolves around the Sun in a year and rotates on its axis every day. * I can explain that the rotation of the Earth and movement of the Sun, Moon, and stars are connected. * I can describe how the Moon appears to changes shape over the course of a month. |  |
| 1.0 | * With support, I can demonstrate some or all of my simple goals. |  |
| 0 | * Even with help, no success. |  |

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| Topic Proficiency Scale  Strand: Earth and Space Science  Cluster: Big Idea 6- Earth Structures | | |
| **Standards: SC.7.E.6.2**  Identify the patterns within the rock cycle and relate them to surface events (weathering and erosion) and subsurface events (plate tectonics and mountain building).  (Also assesses SC.6.E.6.1, SC.6.E.6.2, and SC.7.E.6.6) | | |
| **Learning Scale:** | | **Resource or Performance Task:** |
| 4.0  \*Above Mastery\* | * I know all of my simple and complex goals and can make in depth analysis of source material.   Example(s):   * I am able to analyze how patterns in the rock cycle relate to ways in which Earth’s surface is built up and torn down. | Identify community features that were affected by weathering and write a proposal to restore such a structure. |
| 3.0  \*Grade Level Target\* | * I can describe and give examples of ways Earth’s surface is built up and torn down by physical and chemical weathering, erosion, and deposition. * I can identify and describe steps of the rock cycle and relate them to surface and subsurface events. * I can identify landforms commonly found on Earth. * I am able to describe similarities and differences among landforms found in Florida and those found outside of Florida. | Create an interactive model that shows how Earth’s surface is built up and torn down by physical and chemical weathering, erosion and deposition. |
| 2.5 | * I know all of my simple goals and some of my complex goals. |  |
| 2.0  Simple Goals | * I can define chemical and physical weathering, erosion, and deposition. * I can identify the three categories of rocks. * I can identify the physical properties of earth-forming minerals and their role in the formation of rocks. * I recognize a variety of landforms on Earth’s surface such as coastlines, dunes, rivers, mountains, glaciers, deltas, and lakes. * I can identify renewable and nonrenewable resources. |  |
| 1.0 | * With support, I can demonstrate some or all of my simple goals. |  |
| 0 | * Even with help, no success. |  |

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| Topic Proficiency Scale  Strand: Earth and Space Science  Cluster: Big Idea 6- Earth Structures | | |
| **Standards: SC.7.E.6.4**  Explain and give examples of how physical evidence support scientific theories that Earth has evolved over geologic time due to natural processes.  (Also assesses SC.7.E.6.3) | | |
| **Learning Scale:** | | **Resource or Performance Task:** |
| 4.0  \*Above Mastery\* | * I know all of my simple and complex goals and can make in depth analysis of source material.   Example:   * I am able to evaluate physical evidence to determine if it supports scientific theories that Earth has evolved, including scientific methods for measuring geologic time. | Investigate and report various real life stories in which scientists determined the age of a fossil such as an ice man or dinosaur. |
| 3.0  \*Grade Level Target\* | * I can identify examples of and explain physical evidence that supports scientific theories that Earth has evolved over geologic time due to natural processes. * I can identify and describe current scientific methods for measuring the age of Earth and its parts. |  |
| 2.5 | * I know all of my simple goals and some of my complex goals. |  |
| 2.0  Simple Goals | * I can define geologic time, fossil record, folding, faulting, intrusion, extrusion, index fossil, radioactive dating, relative age, era, period, and epoch, * I can explain the Law of Superposition. * I can describe basic differences between weathering, erosion, and deposition. | Create a graphic organizer/timelines that illustrates that Earth has evolved over geologic time. Include terms such as Law of Superposition, index fossils, intrusion, extrusion, folding, faults, and relative age. |
| 1.0 | * With support, I can demonstrate some or all of my simple goals. |  |
| 0 | * Even with help, no success. |  |

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| Topic Proficiency Scale  Strand: Earth and Space Science  Cluster: Big Idea 6- Earth Structures | | |
| **Standards: SC.7.E.6.5** Explore the scientific theory of plate tectonics by describing how the movement of Earth’s crustal plates causes both slow and rapid changes in Earth’s surface, including volcanic eruptions, earthquakes, and mountain building.  (Also assesses SC.7.E.6.1 and SC.7.E.6.7) | | |
| **Learning Scale:** | | **Resource or Performance Task:** |
| 4.0  \*Above Mastery\* | * I know all of my simple and complex goals and can make in depth analysis of source material.   Example:   * I am able to interpret the scientific theory of plate tectonics and how it related to surface and subsurface structures and geologic events. * I can make predictions about changes in Earth’s surface based on a given situation about plate tectonics and their movement. |  |
| 3.0  \*Grade Level Target\* | * I can describe the scientific theory of plate tectonics and/or how the movement of Earth’s crustal plates and the flow of heat and material cause various geologic events to occur. * I am able to identify and/or describe the layers of the Earth. * I can compare different types of volcano formation. | Create a model of the movement of Earth’s plates that includes the heat flow and movement of material within Earth and the type of geologic event such as a volcanic eruption that occurs at that type of boundary. Identify the type of rock found at the geologic event. |
| 2.5 | * I know all of my simple goals and some of my complex goals. |  |
| 2.0  Simple Goals | * I can define tectonic plates, crust, lithosphere, mantle, outer core, inner core, convection, * I can recognize that movements of Earth’s plates result in various geologic events. |  |
| 1.0 | * With support, I can demonstrate some or all of my simple goals. |  |
| 0 | * Even with help, no success. |  |

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| Topic Proficiency Scale  Strand: Earth and Space Science  Cluster: Big Idea 7- Earth Systems and Patterns | | |
| **Standards: SC.6.E.7.4** Differentiate and show interactions among the geosphere, hydrosphere, cryosphere, atmosphere, and biosphere.  (Also assesses SC.6.E.7.2, SC.6.E.7.3, SC.6.E.7.6, SC.6.E.7.9) | | |
| **Learning Scale:** | | **Resource or Performance Task:** |
| 4.0  \*Above Mastery\* | * I know all of my simple and complex goals and can make in depth analysis of source material.   Example:   * I can differentiate and analyze interactions among Earth’s spheres. * I can make inferences about impacts caused by changes in Earth’s spheres. * I can make predictions about weather events based on a weather map. |  |
| 3.0  \*Grade Level Target\* | * I am able to recognize relationships among Earth’s spheres. * I can describe how the cycling of water and global patterns influence local weather and climate. * I am able to differentiate between weather and climate. * I can demonstrate the composition and structure of the atmosphere and how it protects life and insulates the planet. | Create a Venn diagram to compare and contrast convection, conduction and radiation in both the Sun’s and Earth’s systems (atmosphere, hydrosphere, cryosphere, geosphere). |
| 2.5 | * I know all of my simple goals and some of my complex goals. |  |
| 2.0  Simple Goals | * I can label Earth’s spheres describe their functions. * I can explain the water cycle. * I can define climate, weather, jet stream, Gulf Stream, wind, current, temperature, hurricane, tornado, lightning, fronts, and precipitation. * I can recognize factors that determine the weather in a particular place. * I can describe how location can impact weather and climate zones. | Develop a model, sketch or story that identifies how the water cycle influences both weather and climate. |
| 1.0 | * With support, I can demonstrate some or all of my simple goals. |  |
| 0 | * Even with help, no success. |  |

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| Topic Proficiency Scale  Strand: Earth and Space Science  Cluster: Big Idea 7- Earth Systems and Patterns | | |
| **Standards: SC.6.E.7.5** Explain how energy provided by the Sun influences global patterns of atmospheric movement and the temperature differences between air, water, and land.  (Also assesses SC.6.E.7.1) | | |
| **Learning Scale:** | | **Resource or Performance Task:** |
| 4.0  \*Above Mastery\* | * I know all of my simple and complex goals and can make in depth analysis of source material.   Example:   * I can analyze how Earth’s orbit impacts the energy provided by the Sun and how that may influence global patterns of atmospheric movement as well as temperature differences between air, water, and land. |  |
| 3.0  \*Grade Level Target\* | * I can explain how energy provided by the Sun influences global patterns of atmospheric movement and/or temperature differences among air, water, and land. * I am able to differentiate between radiation, conduction, and convection in Earth’s systems. * I can demonstrate the causes of wind and wind patterns. |  |
| 2.5 | * I know all of my simple goals and some of my complex goals. |  |
| 2.0  Simple Goals | * I can define radiation, conduction, convection, atmosphere, geosphere, hydrosphere, wind. * I can recognize global patterns of atmospheric movement. * I can demonstrate that radiant energy from the Sun can heat objects and when the Sun is not present, heat may be lost. |  |
| 1.0 | * With support, I can demonstrate some or all of my simple goals. |  |
| 0 | * Even with help, no success. |  |

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| Topic Proficiency Scale  Strand: Physical Science  Cluster: Big Idea 8- Properties of Matter | | |
| **Standards: SC.8.P.8.4** Classify and compare substances on the basis of characteristic physical properties that can be demonstrated or measured for examples, density; thermal or electrical conductivity; solubility; magnetic properties; melting and boiling points; and know that these properties are independent of the amount of the sample. | | |
| **Learning Scale:** | | **Resource or Performance Task:** |
| 4.0  \*Above Mastery\* | * I know all of my simple and complex goals and can make in depth analysis of source material.   Example:   * I am able to classify and compare substances using data, observations, and measurable physical properties. * I am able to calculate and analyze the densities of various materials using data. | Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred. |
| 3.0  \*Grade Level Target\* | * I am able to classify and/or compare substance on the basis of their physical properties and explain that these properties are independent of the amount of the sample. * I can describe density and calculate the densities of various materials using data. | Describe density and/or calculate and compare the densities of various materials using the materials’ masses and volumes. (may require use of the density formula to calculate density, mass, or volume when comparing substances) |
| 2.5 | * I know all of my simple goals and some of my complex goals. |  |
| 2.0  Simple Goals | * I can define density, mass, volume, conductivity, solubility, magnetism, solvent, solute, saturation, melting point, freezing point * I can explain how to calculate density. * I can compare solids, liquids, and gases. * I can recognize conductors of electricity and illustrate that the flow of electricity requires a closed circuit. |  |
| 1.0 | * With support, I can demonstrate some or all of my simple goals. |  |
| 0 | * Even with help, no success. |  |

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| Topic Proficiency Scale  Strand: Physical Science  Cluster: Big Idea 8- Properties of Matter | | |
| **Standards: SC.8.P.8.5** Recognize that there are a finite number of elements and that their atoms combine in a multitude of ways to produce compounds that make up all of the living and nonliving things that we encounter.  (Also assesses SC.8.P.8.1, SC.8.P.8.6, SC.8.P.8.7, SC.8.P.8.8, SC.8.P.8.9) | | |
| **Learning Scale:** | | **Resource or Performance Task:** |
| 4.0  \*Above Mastery\* | * I know all of my simple and complex goals and can make in depth analysis of source material.   Example:   * I can group elements based on the similarities of their properties. * I can predict how elements and compounds function when combined. * I can assess periodic trends. |  |
| 3.0  \*Grade Level Target\* | * I can describe how elements combine in a multitude of ways to produce compounds that make up all living and nonliving things. * I can explain how elements are grouped in the periodic table and illustrate periodic trends. * I can compare, contrast, and classify the properties of compounds, including acids and bases. * I can differentiate among pure substances, mixtures, and solutions. * I can demonstrate my understanding of the pH scale and give examples. | Develop models to describe the atomic composition of simple molecules. |
| 2.5 | * I know all of my simple goals and some of my complex goals. |  |
| 2.0  Simple Goals | * I can define element, compound, acid, base, pH, salt, substance, mixture, solution, reaction, proton, neutron, electron * I can identify common examples of acids, bases, and/or salts. * I am able to describe the motion of particles in solids, liquids, and/or gases. | Draw and label models of atoms, elements and compounds and the atomic composition of simple molecules. |
| 1.0 | * With support, I can demonstrate some or all of my simple goals. |  |
| 0 | * Even with help, no success. |  |

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| Topic Proficiency Scale  Strand: Physical Science  Cluster: Big Idea 9- Changes in Matter | | | |
| **Standards: SC.8.P.9.2** Differentiate between physical changes and chemical changes.  (Also assesses SC.8.P.9.1 and SC.8.P.9.3) | | | |
| **Learning Scale:** | | **Resource or Performance Task:** |
| 4.0  \*Above Mastery\* | * I know all of my simple and complex goals and can make in depth analysis of source material.   Example(s):   * I can relate physical and chemical changes to real life scenarios. * I can design and conduct and experiment to test the impact of temperature on chemical changes. * I can analyze a set of data regarding physical and chemical changes and make inferences or predictions. |  |
| 3.0  \*Grade Level Target\* | * I can differentiate between physical and chemical changes and provide examples of each. * I can explain the Law of Conservation of Mass and give examples. * I am able to describe how temperature influences chemical changes. * I can select the type of change present in a presented scenario. | Develop and use a model to describe how the total number of atoms does not change in a chemical reaction and thus mass is conserved. (*Emphasis is on law of conservation of matter and on physical models or drawings, including digital forms that represent atoms)* |
| 2.5 | * I know all of my simple goals and some of my complex goals. |  |
| 2.0  Simple Goals | * I can define the Law of Conservation of Mass. * I can explain chemical and physical changes. * I can define temperature (using both Celsius and Fahrenheit). * I am able to determine the mass of substances before and after physical and chemical changes to confirm that mass is conserved. | Demonstrate that mass is conserved in ordinary chemical reactions. *(Compare the mass before and after in the following physical and chemical reactions: baking soda in balloon and vinegar in small bottle, beaker of ice, bottle of dry ice with balloon, and Alka-Seltzer tablet and water)* |
| 1.0 | * With support, I can demonstrate some or all of my simple goals. |  |
| 0 | * Even with help, no success. |  |

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| Topic Proficiency Scale  Strand: Physical Science  Cluster: Big Idea 10- Forms of Energy | | |
| **Standards: SC.7.P.10.1** Illustrate that the Sun’s energy arrives as radiation with a wide range of wavelengths, including infrared, visible, and ultraviolet, and that white light is made up of a spectrum of many different colors.  (Also assesses SC.8.E.5.11) | | |
| **Learning Scale:** | | **Resource or Performance Task:** |
| 4.0  \*Above Mastery\* | * I know all of my simple and complex goals and can make in depth analysis of source material.   Example(s):   * I can design and conduct and experiment that tests the impacts of wavelengths. * I am able to analyze the characteristics of waves using the electromagnetic spectrum. | Make a graphic organizer that analyzes the types of electromagnetic waves, their wavelengths and frequencies as they transport energy from the Sun to Earth. |
| 3.0  \*Grade Level Target\* | * I can compare and contrast the variety of types of radiation present in radiation from the sun. * I can identify and compare characteristics of the electromagnetic spectrum. * I am able to identify common uses and/or application of electromagnetic waves. | Use a graphic organizer to compare and contrast the wavelengths and other characteristics of the different types of radiation that comes from the Sun’s energy. |
| 2.5 | * I know all of my simple goals and some of my complex goals. |  |
| 2.0  Simple Goals | * I can define radiation, frequency, wavelength * I can explain what the electromagnetic spectrum is. * I can identify each type of radiation that is found in energy from the Sun. |  |
| 1.0 | * With support, I can demonstrate some or all of my simple goals. |  |
| 0 | * Even with help, no success. |  |

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| Topic Proficiency Scale  Strand: Physical Science  Cluster: Big Idea 10- Forms of Energy | | |
| **Standards: SC.7.P.10.3** Recognize that light waves and other waves move at different speeds in different materials.  (Also assesses SC.7.P.10.2) | | |
| **Learning Scale:** | | **Resource or Performance Task:** |
| 4.0  \*Above Mastery\* | * I know all of my simple and complex goals and can make in depth analysis of source material.   Example(s):   * I am able to evaluate how evidence from experiments or investigations supports that light waves can be reflected, refracted, or absorbed. | Research the relationship between the transport of energy and the angle, speed, or medium during reflection, refraction, and absorption of light and prepare a presentation of your findings. |
| 3.0  \*Grade Level Target\* | * I can describe and explain that waves move at different speeds through different materials. * I can explain and illustrate how light waves can be reflected, refracted, and absorbed. * I can show the general relative order of wave speed in different phases. | Space Jams[: Light, Absorption, Reflection and Refraction](http://studyjams.scholastic.com/studyjams/jams/science/energy-light-sound/light-absorb-reflect-refract.htm)  Create labeled diagrams of light being reflected, refracted, and absorbed through different substances. For each diagram, explain why light behaves in this way. |
| 2.5 | * I know all of my simple goals and some of my complex goals. |  |
| 2.0  Simple Goals | * I can define wave, wavelength, frequency, speed, reflection, refraction, absorption. * I can explain the phases of a wave. * I can identify reflection, refraction, and absorption of light in an example. * I can observe and describe some basic forms of energy including light, heat, sound, electrical, chemical, and mechanical. |  |
| 1.0 | * With support, I can demonstrate some or all of my simple goals. |  |
| 0 | * Even with help, no success. |  |

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| Topic Proficiency Scale  Strand: Physical Science  Cluster: Big Idea 11- Energy Transfer and Transformations | | |
| **Standards: SC.7.P.11.2** Investigate and describe the transformations of energy from one form to another.  (Also assesses SC.6.P.11.1 and SC.7.P.11.3) | | |
| **Learning Scale:** | | **Resource or Performance Task:** |
| 4.0  \*Above Mastery\* | * I know all of my simple and complex goals and can make in depth analysis of source material.   Example(s):   * I am able to analyze the transformation of energy from one form to another. * I can assess the validity of an example of an energy transformation. * I can make predictions and inferences about the amount of potential and kinetic energy in specific situations. | Analyze different transformations of energy within systems, i.e., in a flashlight, in an energy pyramid, in renewable and nonrenewable sources to electricity that powers everyday appliances, or from within the sun to plants. |
| 3.0  \*Grade Level Target\* | * I can describe the transformation of energy from one form to another. * I can differentiate between potential energy and kinetic energy. * I can explain situations where energy is transformed between kinetic energy and potential energy. * I can identify and describe examples of the Law of Conservation of Energy. | **GIZMOS**: [Energy Conversions](http://www.explorelearning.com/index.cfm?method=cResource.dspDetail&ResourceID=651)  Create energy pathways to show where our energy comes from. |
| 2.5 | * I know all of my simple goals and some of my complex goals. | Describe the flow of energy (pathway) in everyday examples such as cooking, riding a bike, using cell phone, fireworks reacting, or camp fires burning. |
| 2.0  Simple Goals | * I can define energy, transformation, potential energy, kinetic energy, electrical energy, chemical energy, mechanical energy * I can explain the Law of Conservation of Energy * I can identify the transformation of energy from one form to another. * I can identify situations where energy is transformed between kinetic energy and potential energy. |  |
| 1.0 | * With support, I can demonstrate some or all of my simple goals. |  |
| 0 | * Even with help, no success. |  |

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| Topic Proficiency Scale  Strand: Physical Science  Cluster: Big Idea 11- Energy Transfer and Transformations | | |
| **Standards: SC.7.P.11.4** Observe and describe that head flows in predictable ways, moving from warmer objects to cooler one until they reach the same temperature. | | |
| **Learning Scale:** | | **Resource or Performance Task:** |
| 4.0  \*Above Mastery\* | * I know all of my simple and complex goals and can make in depth analysis of source material.   Example(s):   * I can predict how heat will flow in a given situation. * I can design and conduct an experiment that demonstrates the impacts of the amount of heat entering or leaving a system. |  |
| 3.0  \*Grade Level Target\* | * I can describe how heat flows in predictable ways. * I can explain that adding heat to or removing heat from a system may result in a temperature change and possibly a change of state. | Gizmo: [Phase Change](http://www.explorelearning.com/index.cfm?method=cResource.dspDetail&ResourceID=557)  Create a graphic organizer that illustrates everyday examples of the various phase changes as heat energy is added or removed from a substance. |
| 2.5 | * I know all of my simple goals and some of my complex goals. |  |
| 2.0  Simple Goals | * I can define energy, temperature, heat, states of matter, condensation, vaporization, sublimation, deposition * I can identify the transformation of energy from one form to another. * I am able to investigate and describe that many physical and chemical changes are affected by temperature. * I can explain the way heat flows. * I can investigate and illustrate the fact that the flow of electricity requires a closed circuit. |  |
| 1.0 | * With support, I can demonstrate some or all of my simple goals. |  |
| 0 | * Even with help, no success. |  |

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| Topic Proficiency Scale  Strand: Physical Science  Cluster: Big Idea 13- Forces and Changes is Motion | | |
| **Standards: SC.6.P.13.1** Investigate and describe types of forces, including contact forces and forces acting at a distance, such as electrical, magnetic, and gravitational.  (Also assesses SC.6.P.13.2 and SC.8.P.8.2) | | |
| **Learning Scale:** | | **Resource or Performance Task:** |
| 4.0  \*Above Mastery\* | * I know all of my simple and complex goals and can make in depth analysis of source material.   Example(s):   * I can calculate differences between mass and weight in given scenarios. * I can provide examples that differentiate mass and weight. * I can make predictions about the effects of distance, mass, and gravitational force on one another. | Evaluate how the gravitational force between objects changes if the distance between them and mass changes. *Examples: two oranges on a branch or two oranges in a bowl, ping pong and a bowling ball next to each other or a marble and a plastic ball next to each other.* |
| 3.0  \*Grade Level Target\* | * I can compare and contrast types of forces. * I can explain the Law of Universal Gravitation. * I can describe the relationship among distance, mass, and gravitational force between any two objects. * I can differentiate between mass and weight. | Gizmos: Mass vs. Weight  Graph and compare how gravitational force between objects (*ex. Earth & the Moon, Sun & Earth, etc.)* changes if distance between them increases. |
| 2.5 | * I know all of my simple goals and some of my complex goals. |  |
| 2.0  Simple Goals | * I can define force, mass, weight, distance, gravity, gravitational force, friction, electric force, magnetic force * I can identify and describe types of forces. * I can recognize that there is a difference between mass and weight. |  |
| 1.0 | * With support, I can demonstrate some or all of my simple goals. |  |
| 0 | * Even with help, no success. |  |

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| Topic Proficiency Scale  Strand: Physical Science  Cluster: Big Idea 13- Forces and Changes in Motion | | |
| **Standards: SC.6.P.13.3** Investigate and describe that an unbalanced force acting on an object changes its speed, or direction of motion, or both.  (Also assesses SC.6.P.12.1) | | |
| **Learning Scale:** | | **Resource or Performance Task:** |
| 4.0  \*Above Mastery\* | * I know all of my simple and complex goals and can make in depth analysis of source material.   Example(s):   * I can create and describe a diagram or example demonstrating the forces acting on an object. * I can create a graph to display distance and time for an object or objects mowing at a constant speed. * I can predict how the addition or removal of forces would impact an object. | Design and perform an experiment that demonstrates how an unbalanced force acts on the motion of an object |
| 3.0  \*Grade Level Target\* | * I can describe and explain that an unbalanced force acting on an object changes its speed and/or direction. * I can interpret and/or analyze graphs of distance and time for an object moving at a constant speed and compare the speed of multiple objects. * I can calculate the net force on an object using a diagram and/or description. | Using a force diagram, explain how two people pushing on opposite sides of a box with unbalanced amounts of force differ from two people pushing on opposite sides of a box with equal force. |
| 2.5 | * I know all of my simple goals and some of my complex goals. |  |
| 2.0  Simple Goals | * I can define force, speed, direction, net force, positive acceleration, negative acceleration, friction, mass, vectors * I can explain how to graph speed using distance and time. * I can investigate and explain that energy has the ability to cause motion or create change and give examples of sources of energy. * I can investigate and explain the relationships between mass and force on the motion of an object. | Illustrate the direction of forces using vectors |
| 1.0 | * With support, I can demonstrate some or all of my simple goals. |  |
| 0 | * Even with help, no success. |  |

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| Topic Proficiency Scale  Strand: Life Science  Cluster: Big Idea 14- Organization and Development of Living Organisms | | |
| **Standards: SC.7.L.14.1** Describe and identify patterns in the hierarchical organization of organisms from atoms to molecules and cells to tissues to organs to organ systems to organisms. | | |
| **Learning Scale:** | | **Resource or Performance Task:** |
| 4.0  \*Above Mastery\* | * I know all of my simple and complex goals and can make in depth analysis of source material.   Example(s):   * I can infer the impacts of one hierarchical level on another. * I can give examples and uses of different types of tissues in animals. |  |
| 3.0  \*Grade Level Target\* | * I can describe patterns in the hierarchical organization of organisms, from atoms to molecules, to cells, to tissues, to organs, to organ systems, to organisms. * I can differentiate between types of tissues in animals such as epithelial, muscular, nervous, and connective. | Create a diagram describing the hierarchical organization of an animal cell |
| 2.5 | * I know all of my simple goals and some of my complex goals. |  |
| 2.0  Simple Goals | * I can define organism, atom, molecule, cell, tissue, organ, organ system * I can identify patterns in the hierarchical organization or organisms. |  |
| 1.0 | * With support, I can demonstrate some or all of my simple goals. |  |
| 0 | * Even with help, no success. |  |

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| Topic Proficiency Scale  Strand: Life Science  Cluster: Big Idea 14- Organization and Development of Living Things | | |
| **Standards: SC.6.L.14.2** Investigate and explain the components of the scientific theory of cell (cell theory): all organisms are composed of cells (single-celled or multicellular), all cells come from pre-existing cells, and cells are the basic unit of life.  (Also assesses SC.6.L.14.3) | | |
| **Learning Scale:** | | **Resource or Performance Task:** |
| 4.0  \*Above Mastery\* | * I know all of my simple and complex goals and can make in depth analysis of source material.   Example(s):   * I can give examples of how humans maintain homeostasis * I can make inferences about how a person may maintain homeostasis in a given scenario |  |
| 3.0  \*Grade Level Target\* | * I can describe and explain the components of cell theory. * I can describe how cells undergo similar processes to maintain homeostasis including extracting energy from food, getting rid of waste, and reproducing. | Create a comic strip or a commercial about cell processes in homeostasis |
| 2.5 | * I know all of my simple goals and some of my complex goals. |  |
| 2.0  Simple Goals | * I can define cell, single-celled, multicellular, organisms, homeostasis, cellular respiration, photosynthesis * I can identify the parts of Cell Theory. * I can explain homeostasis. |  |
| 1.0 | * With support, I can demonstrate some or all of my simple goals. |  |
| 0 | * Even with help, no success. |  |

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| Topic Proficiency Scale  Strand: Life Science  Cluster: Big Idea 14- Organization and Development of Living Organisms | | |
| **Standards: SC.6.L.14.4** Compare and contrast the structure and function of major organelles of plant an animal cells, including cell wall, cell membrane, nucleus, cytoplasm, chloroplasts, mitochondria, and vacuoles. | | |
| **Learning Scale:** | | **Resource or Performance Task:** |
| 4.0  \*Above Mastery\* | * I know all of my simple and complex goals and can make in depth analysis of source material.   Example(s):   * I can compare cell organelles to real life items. * I can create a model of a cell that depicts the structures and functions of its major organelles. |  |
| 3.0  \*Grade Level Target\* | * I can compare and contrasts the structure and function of major organelles of plant and animal cells. | Create a graphic organizer to compare and contrast characteristics of plant and animal cells. |
| 2.5 | * I know all of my simple goals and some of my complex goals. |  |
| 2.0  Simple Goals | * I can define cell and organelle. * I can identify cellular structures such as the cell wall, cell membrane, nucleus, cytoplasm, mitochondria, and vacuoles. | Create a flip book or flashcards with major organelles. |
| 1.0 | * With support, I can demonstrate some or all of my simple goals. |  |
| 0 | * Even with help, no success. |  |

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| Topic Proficiency Scale  Strand: Life Science  Cluster: Big Idea 14- Organization and Development of Living Organisms | | |
| **Standards: SC.7.L.14.5** Identify and investigate the general functions of the major systems of the human body (digestive, respiratory, circulatory, reproductive, excretory, immune, nervous, and musculoskeletal) and describe ways these systems interact with each other to maintain homeostasis.  (Also assesses SC.6.L.14.6) | | |
| **Learning Scale:** | | **Resource or Performance Task:** |
| 4.0  \*Above Mastery\* | * I know all of my simple and complex goals and can make in depth analysis of source material.   Example(s):   * I can compare and contrast the functions human body systems. * I can identify and predict solutions for problems with homeostasis when given details about organ system functions in humans. * I can summarize the impacts of infectious agents on human body systems in a given scenario. |  |
| 3.0  \*Grade Level Target\* | * I can describe the general functions of the major systems of the human body. * I can describe how the major systems of the human body interact to maintain homeostasis. * I can compare and contrast the types of infectious agents that affect the human body. | Discuss functions of body system in a gallery walk or world café |
| 2.5 | * I know all of my simple goals and some of my complex goals. |  |
| 2.0  Simple Goals | * I can define organism, organ, organ system, homeostasis, infectious agent * I can name and identify the systems of the human body. * I can identify interactions between human organ systems. * I can list and define the types of infectious agents that affect the human body including viruses, bacteria, fungi, and parasites. * I can recognize which systems that organs are a part of in the human body. |  |
| 1.0 | * With support, I can demonstrate some or all of my simple goals. |  |
| 0 | * Even with help, no success. |  |

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| Topic Proficiency Scale  Strand: Life Science  Cluster: Big Idea 15- Diversity and Evolution of Living Organisms | | | |
| **Standards: SC.6.L.15.1** Analyze and describe how and why organisms are classified according to shared characteristics, with emphasis on the Linnaean system combined with the concept of Domains. | | | |
| **Learning Scale:** | | **Resource or Performance Task:** |
| 4.0  \*Above Mastery\* | * I know all of my simple and complex goals and can make in depth analysis of source material.   Example(s):   * I can classify an item based on its characteristics into its Domain and Kingdom. | Create a list of organisms and analyze and describe how and why these organisms are classified according to shared characteristics from Domain through Species (or create a dichotomous key) |
| 3.0  \*Grade Level Target\* | * I can describe how and why organisms are classified. * I can analyze how and why organisms are classified. * I can compare and contrast the kingdoms of Bacteria, Archaea, and Eukarya. * I can distinguish between the kingdoms of Protist, Fungus, Plant, and Animal. | Classify different types of organisms using the levels of classification |
| 2.5 | * I know all of my simple goals and some of my complex goals. |  |
| 2.0  Simple Goals | * I can define classification, prokaryotes, eukaryotes, heterotroph, autotroph, bacteria, archaea, eukarya, protest, fungus, plant, animal, binomial nomenclature, scientific name, common name * I can explain that characteristics are used to classify organisms. * I can list the hierarchy of classification of organisms in order from largest to smallest and/or smallest to largest. * I can classify animals and plants into major groups according to their physical characteristics and behaviors. * I can compare and contrast the function of organs and other physical structures of plants and animals. | Design a graphic organizer on the levels of organization including the terms: Domain, Kingdom, Phylum, Class, Order, Family, Genus, Species |
| 1.0 | * With support, I can demonstrate some or all of my simple goals. |  |
| 0 | * Even with help, no success. |  |

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| Topic Proficiency Scale  Strand: Life Science  Cluster: Big Idea 15- Diversity and Evolution of Living Organisms | | |
| **Standards: SC.7.L.15.2** Explore the scientific theory of evolution by recognizing and explaining ways in which genetic variation and environmental factors contribute to evolution by natural selection and diversity of organisms.  (Also assesses SC.7.L.15.1 and SC.7.L.15.3) | | |
| **Learning Scale:** | | **Resource or Performance Task:** |
| 4.0  \*Above Mastery\* | * I know all of my simple and complex goals and can make in depth analysis of source material.   Example(s):   * I can summarize ways in which genetic variation and environmental factors contribute to evolution by natural selection and diversity of organisms. * I can provide examples of factors that contribute to evolution. | Explain what happens to organisms of the same species that cannot camouflage. |
| 3.0  \*Grade Level Target\* | * I can identify and explain ways in which genetic variation and environmental factors contribute to evolution by natural selection and diversity of organisms. * I can identify and explain ways in which fossil evidence is consistent with the Scientific Theory of Evolution. * I am able to identify and explain how a species’ inability to adapt may contribute to the extinction of that species. | Create a time-line that illustrates how an organism has evolved over time.  Complete activity that shows how the Peppered Moth can blend into its environment and explain what happens to the moths that can’t blend. |
| 2.5 | * I know all of my simple goals and some of my complex goals. |  |
| 2.0  Simple Goals | * I can define genetic variation, evolution, natural selection, diversity, adaptation, extinction * I can explain the Scientific Theory of Evolution. * I can list factors that contribute to evolution. |  |
| 1.0 | * With support, I can demonstrate some or all of my simple goals. |  |
| 0 | * Even with help, no success. |  |

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| Topic Proficiency Scale  Strand: Life Science  Cluster: Big Idea 16- Heredity and Reproduction | | |
| **Standards: SC.7.L.16.1** Understand and explain that every organism requires a set of instructions that specifies its traits, that this hereditary information (DNA) contains genes located in the chromosomes of each cell, and that heredity is the passage of these instructions from one generation to another.  (Also assesses SC.7.L.16.2 and SC.7.L.16.3) | | |
| **Learning Scale:** | | **Resource or Performance Task:** |
| 4.0  \*Above Mastery\* | * I know all of my simple and complex goals and can make in depth analysis of source material.   Example(s): |  |
| 3.0  \*Grade Level Target\* | * I can explain that hereditary information (DNA) contains genes located in the chromosomes of each cell. * I can use Punnett squares and pedigrees to determine genotypic and phenotypic probabilities. * I can compare and contrast general processes of sexual and asexual reproduction that result in the passage of hereditary information from one generation to another. | Design a creature using Punnett squares  Gizmos: [Building DNA](http://www.explorelearning.com/index.cfm?method=cResource.dspView&ResourceID=439) |
| 2.5 | * I know all of my simple goals and some of my complex goals. |  |
| 2.0  Simple Goals | * I can define offspring, trait, gene, heredity, generation, DNA, chromosome, genotype, phenotype, dominant, recessive, probability, sexual reproduction, asexual reproduction, mitosis, meiosis * I can describe and explain that every organism requires a set of instructions that specifies its traits. | Create a graphic organizer that differentiates between phenotype and genotype when discussing heredity.  BrainPop [: Heredity](http://www.brainpop.com/science/cellularlifeandgenetics/heredity/preview.weml) |
| 1.0 | * With support, I can demonstrate some or all of my simple goals. |  |
| 0 | * Even with help, no success. |  |

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| Topic Proficiency Scale  Strand: Life Science  Cluster: Big Idea 17- Interdependence | | |
| **Standards: SC.7.L.17.2** Compare and contrast the relationships among organisms, such as mutualism, predation, parasitism, competition, and commensalism.  (Also assesses SC.7.L.17.1 and | | |
| **Learning Scale:** | | **Resource or Performance Task:** |
| 4.0  \*Above Mastery\* | * I know all of my simple and complex goals and can make in depth analysis of source material.   Example(s):   * I can decide the type of relationship among organisms based on a description. * I can design a food web to depict the process of energy transfer in a food web. * I can predict how limiting factors will affect a population. |  |
| 3.0  \*Grade Level Target\* | * I can compare and contrast relationship between organisms, such as mutualism, predation, parasitism, competition, and commensalism. * I can describe and explain the roles of and relationship among producers, consumers, and decomposers in the process of energy transfer in a food web. * I can differentiate between primary, secondary, and tertiary consumers. * I can describe various limiting factors in an ecosystem and their impact on native population. | Create a diagram of the Carbon Cycle  Identify the roles and relationships among organisms in a food web in your backyard or school grounds.  Create a booklet that provides an explanation and diagram of each type. |
| 2.5 | * I know all of my simple goals and some of my complex goals. |  |
| 2.0  Simple Goals | * I can define mutualism, predation, parasitism, competition, commensalism, producer, consumer, decomposer, food web, trophic level, limiting factor, native species, population, ecosystem * I can explain what a food web is. * I can identify types of limiting factors. | Analyze several food chains and explain what happens to energy as it flows through the food chain. |
| 1.0 | * With support, I can demonstrate some or all of my simple goals. |  |
| 0 | * Even with help, no success. |  |

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| Topic Proficiency Scale  Strand: Life Science  Cluster: Big Idea 18- Matter and Energy Transformation | | |
| **Standards: SC.8.L.18.4** Cite evidence that living systems follow the Laws of Conservation of Mass and Energy.  (Also assesses SC.8.L.18.1, SC.8.L.18.2, and SC.8.L.18.3) | | |
| **Learning Scale:** | | **Resource or Performance Task:** |
| 4.0  \*Above Mastery\* | * I know all of my simple and complex goals and can make in depth analysis of source material.   Example(s):   * I can give examples of how living systems obey the Law of Conservation of Mass and the Law of Conservation of Energy. * I can design and conduct and experiment to test the factors of photosynthesis and cellular respiration. | Investigate and manipulate the process of photosynthesis using real plants or algae |
| 3.0  \*Grade Level Target\* | * I can explain how living systems obey the Law of Conservation of Mass and the Law of Conservation of Energy. * I can describe and explain the general processes of photosynthesis and cellular respiration. * I can describe how matter is transferred in the carbon cycle. * I can describe the role of light, carbon dioxide, water, and chlorophyll in the process and products of photosynthesis. | Create a poem or song about the Laws of Conservation of Mass and Energy.  Create a diagram depicting photosynthesis and cellular respiration. |
| 2.5 | * I know all of my simple goals and some of my complex goals. |  |
| 2.0  Simple Goals | * I can define photosynthesis, cellular respiration, carbon cycle, carbon dioxide, chlorophyll, carbon reservoir, fossil fuel, atmosphere, sediment * I can state the Law of Conservation of Mass and the Law of Conservation of Energy. |  |
| 1.0 | * With support, I can demonstrate some or all of my simple goals. |  |
| 0 | * Even with help, no success. |  |