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| Benchmarks | | Garden Example lessons |
| **Standard 1: SCIENTIFIC INVESTIGATION** | | |
| SC.8.1.1 – **Scientific Inquiry** – Determine the link between evidence and conclusion of an investigation. Apply to real world. |  | |
| SC.8.1.2 – Clearly communicate the components of an experimental design and the results of a scientific investigation. |  | |
| **Standard 2: NATURE OF SCIENCE/SCIENTIFIC PROCESS** | | |
| SC.8.2.1 – **Science/Technology/Society** – Give examples (Earth and Space) of how technology and society have impacted each other. |  | |
| SC.8.2.2 – **Unifying Concepts and Themes** – Describe how scale and mathematical models can be used to support and explain scientific data. |  | |
| **Standard 3: ORGANISMS AND THE ENVIRONMENT**  NO BENCHMARKS | | |
| **Standard 4: STRUCTURE AND FUNCTION IN ORGANISMS**  NO BENCHMARKS | | |
| **Standard 5: DIVERSITY, GENETICS, AND EVOLUTION** | | |
| SC.8.5.1 – **Life and Environmental Science -** Explain how changes in the physical environment affect the survival of organisms. |  | |
| **Standard 6: NATURE OF MATTER AND ENERGY** | | |
| SC.8.6.1 – **Matter and Energy** – Explain the relationship between the color of light and the wavelength with the spectrum. |  | |
| SC.8.6.2 – **Waves** – Explain the differences between seismic waves (primary/secondary/surface) and provide examples. |  | |
| SC.8.6.3 – Identify the characteristics and properties of mechanical and electromagnetic waves (reflection, refraction, absorption, wavelength). Give real world examples. |  | |
| **Standard 7: FORCE AND MOTION** | | |
| SC.8.7.1 – **Earth and Space Science – Force and Motion** – Explain that all objects have mass and exert a gravitational force on other objects. Proportional relationship. | |  |
| **Standard 8: EARTH AND SPACE SCIENCE** | | |
| SC.8.8.1 – **Earth Materials** – Classify rocks (igneous/metamorphic/sedimentary) and justify placement. | |  |
| SC.8.8.2 – Diagram the rock cycle and include interrelationships between the formation of the three main rock groupings. | |  |
| SC.8.8.3 – **Earth in the Solar System** - How does the Earth’s motion and tilt affect seasons and weather. | |  |
| SC.8.8.4 **– Forces that Shape the Earth** – Explain and analyze the importance of the sun and it’s influence on Earth’s climate and weather. | |  |
| SC.8.8.5 – Explain continental drift and plate tectonics and defend a prediction for future drift based on knowledge. | |  |
| SC.8.8.6 – Describe the relationships between density and convection currents and the effect on global wind patterns and major ocean currents. | |  |
| SC.8.8.7 – Describe the ocean’s physical characteristics over time (size, depth, geologic history, ocean floor, currents). | |  |
| SC.8.8.8 – **The Universe –** Describe the physical properties and chemical composition of objects in the galaxy. | |  |
| SC.8.8.9 – Explain the motions of the Earth and the moon and the moon’s impact on the Earth. | |  |
| SC.8.8.10 – Explain the characteristics and movement patterns of planets in our solar system. | |  |
| SC.8.8.11 – Describe the major components of the universe and their classifications by shape, their movements, and their characteristics. | |  |
| SC.8.8.12 – Describe how gravitational forces keep the Earth, other planets, and moons in orbit. How do gravitational forces determine shape of motion in planetary systems? | |  |