



Exhibit Alignment with SC Science Standards – 5th Grade

Scientific Inquiry

Standard 5-1: The student will demonstrate an understanding of scientific inquiry, including the foundations of technological design and the processes, skills, and mathematical thinking necessary to conduct a controlled scientific investigation

5 – 1.1 – Identify questions suitable for generating a hypothesis

- WonderWorks Applicable Exhibits: Are you a risk taker?, What are the odds?, How cold is it?, Tesla Coil, Virtual Sports, Xtreme 360, How high can you jump?, Coin Orbiter, Space Weight, One In a Million, MindBall

5 – 1.2 – Identify independent (manipulated), dependent (responding), and controlled variables in an experiment

- WonderWorks Applicable Exhibits: Are you a risk taker?, What are the odds?, One In a Million, MindBall

5 – 1.3 – Plan and conduct controlled scientific investigations, manipulating one variable at a time

- WonderWorks Applicable Exhibits: Are you a risk taker?, One In a Million, What are the odds?

5 – 1.4 – Use appropriate tools and instruments (including a timing device and a 10x magnifier) safely and accurately when conducting a controlled scientific investigation

- WonderWorks Applicable Exhibits: Pulley Power, Coin Orbiter

5 – 1.6 – Evaluate results of an investigation to formulate a valid conclusion based on evidence and communicate the findings of the evaluation in oral or written form

- WonderWorks Applicable Exhibits: MindBall, Are you a risk taker?, One In a Million, What are the odds?



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5 - 1.8 – Use appropriate safety procedures when conducting investigations

- WonderWorks Applicable Exhibits: Hurricane Wind Shack, Tesla Coil, Bed of Nails, Xtreme 360, Ropes Challenge Course

Ecosystems: Terrestrial and Aquatic

Standard 5-2: The student will demonstrate an understanding of relationships among biotic and abiotic factors within terrestrial and aquatic ecosystems (Life Science)

5 – 2.2 – Summarize the composition of an ecosystem, considering both biotic factors (including populations to the level of microorganisms and communities) and abiotic factors

- WonderWorks Applicable Exhibits: Earth Tic-Tac-Toe

5 – 2.3 – Compare the characteristics of different ecosystems (including estuaries/salt marshes, oceans, lakes and ponds, forests, and grasslands)

- WonderWorks Applicable Exhibits: Earth Tic-Tac-Toe

5 – 2.5 – Explain how limiting factors (including food, water, space, and shelter) affect populations in ecosystems

- WonderWorks Applicable Exhibits: Earth Tic-Tac-Toe

Landforms and Oceans

Standard 5-3: The student will demonstrate an understanding of features, processes, and changes in Earth's land and oceans (Earth Science)

5 – 3.1 – Explain how natural processes (including weathering, erosion, deposition, landslides, volcanic eruptions, earthquakes, and floods) affect Earth's oceans and lands in constructive and destructive ways

- WonderWorks Applicable Exhibits: Natural Disasters, Hurricane Wind Shack, Earth Tic-Tac-Toe

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5 – 3.4 – Explain how waves, currents, tides, and storms affect the geologic features of the ocean shore zone (including beaches, barrier islands, estuaries, and inlets)

- WonderWorks Applicable Exhibits: Natural Disasters, Robotic Arms

5 – 3.6 – Explain how human activity (including conservation efforts and pollution) has affected the land and the oceans of Earth

- WonderWorks Applicable Exhibits: Natural Disasters, Earth Tic-Tac-Toe

Properties of Matter

Standard 5-4: The student will demonstrate an understanding of properties of matter (Earth Science)

5 – 4.2 – Compare the physical properties of the states of matter (including volume, shape, and the movement and spacing of particles)

- WonderWorks Applicable Exhibits: Anti-Gravity Chamber, How cold is it?, Bubble Lab

5 – 4.3 – Summarize the characteristics of a mixture, recognizing a solution as a kind of mixture

- WonderWorks Applicable Exhibits: Bubble Lab

5 – 4.5 – Explain how the solute and the solvent in a solution determine the concentration

- WonderWorks Applicable Exhibits: Bubble Lab

5 – 4.7 – Illustrate the fact that when some substances are mixed together, they chemically combine to form a new substance that cannot easily be separated

- WonderWorks Applicable Exhibits: Bubble Lab



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Forces and Motion

Standard 5-5: The student will demonstrate an understanding of the nature of force and motion (Physical Science)

5 – 5.1 – Illustrate the affects of force (including magnetism, gravity, and friction) on motion

- WonderWorks Applicable Exhibits: Inversion Tunnel, Pulley Power, Anti-Gravity Chamber, How high can you jump?, Coin Orbiter

5 – 5.2 – Summarize the motion of an object in terms of position, direction, and speed

- WonderWorks Applicable Exhibits: Inversion Tunnel, Pulley Power, Anti-Gravity Chamber, Hurricane Wind Shack, Virtual Sports, How high can you jump?, Coin Orbiter

5 – 5.3 – Explain how unbalanced forces affect the rate and direction of motion in objects

- WonderWorks Applicable Exhibits: Inversion Tunnel, Pulley Power, Anti-Gravity Chamber, Hurricane Wind Shack, Virtual Sports, How high can you jump?, Coin Orbiter

5 – 5.4 – Explain ways to change the effect that friction has on the motion of objects (including changing the texture of the surfaces, changing the amount of surface area involved, and adding lubrication)

- WonderWorks Applicable Exhibits: Inversion Tunnel, Pulley Power, Anti-Gravity Chamber, Hurricane Wind Shack, Virtual Sports, How high can you jump?, Coin Orbiter, Space Weight

5 – 5.5 – Explain how a change of force or a change in mass affects the motion of an object

- WonderWorks Applicable Exhibits: Inversion Tunnel, Pulley Power, Anti-Gravity Chamber, Hurricane Wind Shack, Virtual Sports, How high can you jump?, Coin Orbiter , Space Weight