Exhibit Alignment with Science Standards – 4th Grade

- S1.1– Raise questions about the natural world, use appropriate reference materials that support understanding to obtain information (identifying the source), conduct both individual and team investigations through free exploration and systematic investigations, and generate appropriate explanations based on those explorations

    - WonderWorks Applicable Exhibits: Inversion Tunnel, Pull Yourself Up, Upside Down World, Anti-Gravity Chamber, Hurricane Shack, Wonder Park, Space Trivia, Cosmic Discovery, Bed of Nails, MindBall, Google Earth, Astronaut Trainer

- S1.2a – Compare the observations made by different groups using multiple tools and seek reasons to explain the differences across groups

    - WonderWorks Applicable Exhibits: Pull Yourself Up, Inversion Tunnel, Upside Down World, Anti-Gravity Chamber, Hurricane Shack, Kidz Pace Bike, Space Trivia, Astronaut Suit, Coin Orbiter, Space Weight, Mercury Capsule, Cosmic Discovery, Robotic Arms, Alien Stomper, Strike A Pose, WonderWall, Earth Tic-Tac-Toe, Memory Sequencer , Carney Mirrors, Theme Song Challenge, MindBall, Astronaut Trainer, Air Cannon

- S1.2.3 – Explain that science does not always follow a rigidly defined method("the scientific method") but that science does involve the use of observations and empirical evidence

    - WonderWorks Applicable Exhibits: Inversion Tunnel, Upside Down World, Anti-Gravity Chamber, Hurricane Shack, Air Cannon, Kidz Pace Bike, Wonder Park, Kidz Pace Snow Jam, How High Can You Jump, Space Trivia, Astronaut Suit, Coin Orbiter, Space Weight, Fighter Jets, Shuttle Landers, Mercury Capsule, Cosmic Discovery, Virtual Hockey, Alien Stomper, Strike A Pose, WonderWall, Earth Tic-Tac-Toe, Swirling Vortex, WonderCoaster, Bed of Nails, Astronaut Trainer, 4D Theater, Lightning Coil, Jacob's Ladder, Google Earth

- S12.3 – Attempt reasonable answers to scientific questions and cite evidence in support

    - WonderWorks Applicable Exhibits: Pull Yourself Up, Air Cannon, Upside Down World, Anti-Gravity Chamber, Natural Disasters, Hurricane Shack, Space Trivia, Coin Orbiter, Cosmic Discovery, MindBall

- S1.3.4 – Recognize and explain that scientists base their explanations on evidence

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- WonderWorks Applicable Exhibits: Inversion Tunnel, Upside Down World, Anti-Gravity Chamber, Hurricane Shack, Hoop Fever, Kidz Pace Bike, Wonder Park, Kidz Pace Snow Jam, How High Can You Jump, Space Trivia, Astronaut Suit, Coin Orbiter, Space Weight, Fighter Jets, Shuttle Landers, Mercury Capsule, Cosmic Discovery, Virtual Hockey, Alien Stomper, Lightning Coil, Jacob's Ladder, Air Cannon, Astronaut Trainer, Strike A Pose, WonderWall, Earth Tic-Tac-Toe, Swirling Vortex, Wonder Coasters, Bed of Nails, MindBall

- S1.2.1a – Recognize that science involves creativity in designing experiments
  - WonderWorks Applicable Exhibits: Inversion Tunnel, Pull Yourself Up, How Tall Are You, Upside Down World, Anti-Gravity Chamber, Natural Disasters, Hurricane Shack, Hoop Fever, Wonder Park, How High Can You Jump, Space Trivia, Astronaut Suit, Coin Orbiter, Space Weight, Fighter Jets, Shuttle Landers, Cosmic Discovery, Robotic Arms, Virtual Hockey, Alien Stomper, Strike A Pose, WonderWall, Earth Tic-Tac-Toe, Swirling Vortex, Memory Sequencer , Carney Mirrors, Giant Piano, Theme Song Challenge, Wonder Coasters, Bed of Nails, MindBall, Air Cannon, Lightning Coil, Jacob's Ladder, 4D Theater, Astronaut Trainer, Google Earth

- S6.1– Explain that models can be three dimensional, two dimensional, an explanation in your mind, or a computer model
  - WonderWorks Applicable Exhibits: At some degree, all exhibits are a sample of a scientific model

- PS1.1c – Observe that the patterns of stars in the sky stay the same although they appear to shift across the sky nightly, and different stars can be seen in different seasons
  - WonderWorks Applicable Exhibits: Space Trivia, Cosmic Discovery, Earth Tic-Tac-Toe

- PS1.1a. – Describe the changes in the observable shape of the moon over the course of about a month
  - WonderWorks Applicable Exhibits: Space Trivia, Earth Tic-Tac-Toe

- PS1.1a. – Recognize that Earth revolves around the Sun in a year and rotates on its axis in a 24-hour day
  - Wonder Works Applicable Exhibits: Space Trivia, Earth Tic-Tac-Toe

- PS1.1a. – Relate that the rotation of Earth (day and night) and apparent movements of the Sun, Moon, and Stars are connected
  - WonderWorks Applicable Exhibits: Space Trivia, Earth Tic-Tac-Toe

- SC.4.E.6.1. –Identify the three categories of rocks: igneous, (formed from molten rock); sedimentary (pieces

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of other rocks and fossilized organisms); and metamorphic (formed from heat and pressure)

- WonderWorks Applicable Exhibits: Earth Tic-Tac-Toe

- SC.4.E.6.2. – Identify the physical properties of common earth-forming minerals, including hardness, color, luster, cleavage, and streak color, and recognize the role of minerals in the formation of rocks

  - WonderWorks Applicable Exhibits: Earth Tic-Tac-Toe

- LE7.1a – Recognize that humans need resources found on Earth and that these are either renewable or nonrenewable resources

  - WonderWorks Applicable Exhibits: Earth Tic-Tac-Toe

- S2.1 – Investigate how technology and tools help to extend the ability of humans to observe very small things and very large things

  - WonderWorks Applicable Exhibits: Hurricane Shack, Natural Disasters, Wonder Park, How High Can You Jump, Space Trivia, Astronaut Suit, Coin Orbiter, Space Weight, Fighter Jets, Shuttle Landers, Mercury Capsule, Cosmic Discovery, Robotic Arms, Earth Tic-Tac-Toe, Bed of Nails, Google Earth

- PS3.1e – Measure and compare objects and materials based on their physical properties including: mass, shape, volume, color, hardness, texture, odor, taste, attraction to magnets

  - WonderWorks Applicable Exhibits: Pull Yourself Up, Coin Orbiter, Space Weight, Earth Tic-Tac-Toe, Bubble Lab, Robotic Arms, Memory Sequencer

- PS2.1c – Identify properties and common uses of water in each of its states

  - WonderWorks Applicable Exhibits: Hurricane Shack, Bubble Lab, Earth Tic-Tac-Toe

- PS3.1c – Explore the Law of Conservation of Mass by demonstrating that the mass of a whole object is always the same as the sum of the masses of its parts

  - Wonder Works Applicable Exhibits: Robotic Arms, WonderWall, Earth Tic-Tac-Toe

- PS3.2. – Identify some familiar changes in materials that result in other materials with different characteristics, such as decaying animal or plant matter, burning, rusting, and cooking

  - WonderWorks Applicable Exhibits: Carney Mirrors, Earth Tic-Tac-Toe

- PS4.1a. – Observe and describe some basic forms of energy, including light, heat, sound, electrical, and the energy of motion

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  - WonderWorks Applicable Exhibits: Pull Yourself Up, Anti-Gravity Chamber, Natural Disasters, Hurricane Shack, Hoop Fever, Wonder Park, Robotic Arms, Virtual Hockey, Memory Sequencer , Giant Piano, Theme Song Challenge, Astronaut Trainer, Lightning Coil, Jacob's Ladder, Air Cannon

- PS5.1d – Investigate and describe that energy has the ability to cause motion or create change
  - WonderWorks Applicable Exhibits: Pull Yourself Up, Anti-Gravity Chamber, Hoop Fever, Wonder Park, Coin Orbiter, Fighter Jets, Shuttle Landers, Virtual Hockey, Astronaut Trainer

- PS4.1b – Recognize that heat flows from a hot object to a cold object and that heat flow may cause materials to change temperature
  - WonderWorks Applicable Exhibits: Natural Disasters

- PS5.1d – Recognize that an object in motion always changes its position and may change its direction
  - WonderWorks Applicable Exhibits: Inversion Tunnel, Pull Yourself Up, Anti-Gravity Chamber, Hurricane Shack, Wonder Park, Space Trivia, Coin Orbiter, Fighter Jets, Shuttle Landers, Cosmic Discovery, Alien Stomper, Virtual Hockey, Swirling Vortex, Bed of Nails, Astronaut Trainer

- PS5.1b – Investigate and describe that the speed of an object is determined by the distance it travels in a unit of time and that objects can move at different speeds
  - WonderWorks Applicable Exhibits: Inversion Tunnel, Pull Yourself Up, Global VR, Anti-Gravity Chamber, Hurricane Shack, Wonder Park, Space Trivia, Coin Orbiter, Fighter Jets, Shuttle Landers, Cosmic Discovery, Alien Stomper, Virtual Hockey, Swirling Vortex, Bed of Nails, Astronaut Trainer, Air Cannon

- LE3.1c – Explain that although characteristics of plants and animals are inherited, some characteristics can be affected by the environment
  - WonderWorks Applicable Exhibits: Earth Tic-Tac-Toe

- LE4.2b – Explain that animals, including humans, cannot make their own food and that when animals eat plants or other animals, the energy stored in the food source is passed to them
  - WonderWorks Applicable Exhibits: Earth Tic-Tac-Toe

- LE6.2b – Trace the flow of energy from the Sun as it is transferred along the food chain through the producers to the consumers
  - WonderWorks Applicable Exhibits: Earth Tic-Tac-Toe

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- LE7.1c – Recognize ways plants and animals, including humans, can impact the environment
    - WonderWorks Applicable Exhibits: Earth Tic-Tac-Toe