



## **Exhibit Alignment with Science Standards (NGSSS) – 8<sup>th</sup> Grade**

- **SC.8.N.1.1** – Define a problem from the eighth grade curriculum, use appropriate reference materials to support scientific understanding, plan and carry out scientific investigations 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
  - **WonderWorks Applicable Exhibits:** Tesla Coil, Pull Yourself Up, What Are The Odds?, Safe Crackers, Anti-Gravity Chamber, Earthquake Café, Natural Disasters, Hurricane Shack, How Cold Is It?, Space Trivia, Space Shuttle Simulators, Robotic Arms, Bed of Nails, MindBall, Wonder Park, Speed of Light, How High Can You Jump?, Bubble Lab

[These exhibits can be used if students are asked to identify which steps of scientific investigation were used to develop it.]

- **SC.8.N.1.2** – Design and conduct a study using repeated trials and replication
  - **WonderWorks Applicable Exhibits:** Pull Yourself Up, What Are The Odds?, Safe Crackers, Natural Disasters, How Cold Is It?, Wonder Park, How High Can You Jump?, Coin Orbiter, Cosmic Discovery, Space Shuttle Simulators, Robotic Arms, MindBall, Speed of Light, Hoop Fever
- **SC.8.N.1.5** – Analyze the methods used to develop a scientific explanation as seen in different fields of science
  - **WonderWorks Applicable Exhibits:** Inversion Tunnel, Bed of Nails, MindBall, What Are The Odds?, Anti-Gravity Chamber, Earthquake Café, Hurricane Shack, How Cold Is It?, Virtual Hoops, , Wonder Park, How High Can You Jump?, Fog Wall, Space Trivia, Coin Orbiter, Space Weight, Fighter Jets, Space Shuttle Simulators, Mercury Capsule, Cosmic Discovery, Virtual Hockey, Strike A Pose, Swirling Vortex, Wonder Coaster
- **SC.8.N.1.6** – Understand that scientific investigations involve the collection of relevant empirical evidence, the use of logical reasoning, and the application of imagination in devising hypotheses, predictions, explanations and models to make sense of the collected evidence

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- WonderWorks Applicable Exhibits: Pull Yourself Up, What Are The Odds?, Safe Crackers, One In a Million, Wonder Park, How High Can You Jump?, Coin Orbiter, Cosmic Discovery, Robotic Arms, Strike A Pose, Earth Tic-Tac-Toe, Memory Sequencer (Simon Says), Bed of Nails, Far Out Art Gallery, MindBall, Speed of Light, Bubble Lab, Hoop Fever
  
- SC.8.N.2.2 – Discuss what characterizes science and its methods
  - WonderWorks Applicable Exhibits: Earthquake Café, Natural Disasters, Hurricane Shack, How Cold Is It?, Wonder Park, How High Can You Jump?, Bubble Lab, Fog Wall, Space Trivia, Coin Orbiter, Space Weight, Fighter Jets, Space Shuttle Simulators, Cosmic Discovery, Roaring Lion, Earth Tic-Tac-Toe, MindBall
  
- SC.8.N.4.1 – Explain that science is one of the processes that can be used to inform decision making at the community, state, national, and international level
  - WonderWorks Applicable Exhibits: What Are The Odds?, Safe Crackers, One In a Million, Natural Disasters, Space Trivia, Fighter Jets, Space Shuttle Simulators, Cosmic Discovery
  
- SC.8.N.4.2 – Explain how political, social, and economic concerns can affect science, and vice versa
  - WonderWorks Applicable Exhibits: Tesla Coil, Space Trivia, Cosmic Discovery, Mission to Mars, What Are The Odds?, Safe Crackers, One In a Million, Earthquake Café, Natural Disasters, Hurricane Shack, How Cold Is It?, Wonder Park
  
- SC.8.E.5.1 – Recognize that there are enormous distances between objects in space and apply our knowledge of light and space travel to understand this distance
  - WonderWorks Applicable Exhibits: Cosmic Discovery, Space Shuttle Simulators, Earth Tic-Tac-Toe, Space Trivia
  
- SC.8.E.5.2 – Recognize that the universe contains many billions of galaxies and that each galaxy contains many billions of stars
  - WonderWorks Applicable Exhibits: Cosmic Discovery, Space Trivia
  
- 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
  - WonderWorks Applicable Exhibits: Cosmic Discovery, Earth Tic-Tac-Toe, Space Trivia, Mission to Mars
  
- SC.8.E.5.4 – Explore the Law of Universal Gravitation by explaining the role that gravity plays in the formation of planets, stars, and solar systems and in determining their motions
  - WonderWorks Applicable Exhibits: - Space Trivia

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- SC.8.E.5.5 – Describe and classify specific physical properties of stars: apparent magnitude (brightness), temperature (color), size, and luminosity (absolute brightness) of stars
  - WonderWorks Applicable Exhibits: Cosmic Discovery, Space Trivia
- 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
  - WonderWorks Applicable Exhibits: Cosmic Discovery, Space Trivia, Mission to Mars
- 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
  - WonderWorks Applicable Exhibits: Natural Disasters, Cosmic Discovery, Earth Tic-Tac-Toe, Space Trivia
- SC.8.E.5.10 – Assess how technology is essential to science for such purposes as access to outer space and other remote locations, sample collection, measurement, data collection and storage, computation, and communication of information
  - WonderWorks Applicable Exhibits: Space Trivia, Astronaut Suit, Coin Orbiter, Space Weight, Fighter Jets, Space Shuttle Simulators, Mercury Capsule, Cosmic Discovery, Earth Tic-Tac-Toe, Mission to Mars, Robotic Arms
- SC.8.E.5.12 – Summarize the effects of space exploration on the economy and culture of Florida
  - WonderWorks Applicable Exhibits: Space Shuttle Simulators, Space trivia
- SC.8.P.8.2 – Differentiate between weight and mass recognizing that weight is the amount of gravitational pull on an object and is distinct from, though proportional, to mass
  - WonderWorks Applicable Exhibits: Pull Yourself Up, Anti-Gravity Chamber, Hurricane Shack, Wonder Park, How High Can You Jump?, Coin Orbiter, Space Weight
- SC.8.P.8.3 – Explore and describe the densities of various materials through measurement of their masses and volumes
  - WonderWorks Applicable Exhibits: Pull Yourself Up, Coin Orbiter, Space Weight
- SC.8.P.8.4 – Classify and compare substances on the basis of characteristic physical properties that can be demonstrated or measured; for example, 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
  - WonderWorks Applicable Exhibits: How Cold Is It?, Coin Orbiter, Space Weight, Bubble Lab

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- SC.8.P.8.9 – Distinguish among mixtures (including solutions) and pure substances
  - WonderWorks Applicable Exhibits: Bubble Lab
- SC.8.P.9.2 – Differentiate between physical changes and chemical changes
  - WonderWorks Applicable Exhibits: Natural Disasters, How Cold Is It?