



Exhibit Alignment with NC Science Standards – 8th Grade

Competency Goal 1: The learner will design and conduct investigations to demonstrate an understanding of scientific inquiry

1.01 – Identify and create questions and hypotheses that can be answered through scientific investigations

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

1.02 – Develop appropriate experimental procedures for: given questions, student generated questions

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

1.03 – Apply safety procedures in the laboratory and in field studies

- WonderWorks Applicable Exhibits: Pulley Power, Safe Crackers, Hurricane Wind Shack, Virtual Sports, Xtreme 360, Bed of Nails, WonderCoaster, Ropes Challenge Course

1.04 – Analyze variables in scientific investigations: indentify dependent and independent, use of a control, manipulate, describe relationships between, define operationally

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

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1.05 – Analyze evidence to: explain observations, make inferences and predictions, develop the relationship between evidence and explanation

- WonderWorks Applicable Exhibits: Are you a risk taker?, What are the odds?, One In a Million, Coin Orbiter, Cosmic Discovery, Space Weight, Space Info Center

1.06 – Use mathematics to gather, organize, and present quantitative data resulting from scientific investigations

- WonderWorks Applicable Exhibits: Are you a risk taker?, What are the odds?, One In a Million, Coin Orbiter, Cosmic Discovery, Space Weight

1.08 – Use oral and written language to: communicate findings, defend conclusions of scientific investigations

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

1.09 – Use technologies and information systems to: research, gather and analyze data, visualize data, disseminate findings to others

- WonderWorks Applicable Exhibits: Are you a risk taker?, What are the odds?, One In a Million, Coin Orbiter, Natural Disasters, Space Update, Cosmic Discovery, Space Info Center, Earth Tic-Tac-Toe

1.10 – Analyze and evaluate information from a scientifically literate viewpoint by reading, hearing, and/or viewing

- WonderWorks Applicable Exhibits: Are you a risk taker?, What are the odds?, One In a Million, Coin Orbiter, Natural Disasters, Space Trivia, Cosmic Discovery, Earth Tic-Tac-Toe

Competency Goal 2: The learner will demonstrate an understanding of technological design

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2.01 – Explore evidence that “technology” has many definitions.

- WonderWorks Applicable Exhibits: All Exhibits use some form of technology

2.02 – Use information systems to: identify scientific needs, human needs, or problems that are subject to technological solution

- WonderWorks Applicable Exhibits: Safe Crackers, Hurricane Wind Shack, Natural Disasters, How Cold is it?, Tesla Coil, Fighter Jets, Space Shuttle Simulators, Robotic Arms, Earth Tic-Tac-Toe, World Clock

2.03 – Evaluate technological designs

- WonderWorks Applicable Exhibits: Time Machine, Google Earth, Safe Crackers, Hurricane Wind Shack, Natural Disasters, How Cold is it?, Tesla Coil, Fighter Jets, Space Shuttle Simulators, Robotic Arms, Earth Tic-Tac-Toe, Are you a risk taker?, What are the odds?, One In a Million, Coin Orbiter, Space Update, Cosmic Discovery, Earth Tic-Tac-Toe

2.04 – Apply tenets of technological design to make informed consumer decisions

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

Competency Goal 3: The learner will conduct investigations and utilize appropriate technologies and information systems to build an understanding of the hydrosphere

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3.01 – Analyze the unique properties of water

- WonderWorks Applicable Exhibits: Earth Tic-Tac-Toe, Anti-Gravity Chamber, How Cold is it?, Bubble Lab, Fog Wall

3.02 – Explain the structure of the hydrosphere

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

3.03 – Evaluate evidence that Earth’s oceans are a reservoir of nutrients, minerals, dissolved gasses, and life forms

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

3.05 – Analyze hydrospheric data over time to predict the health of a water system

- WonderWorks Applicable Exhibits: Earth Tic-Tac-Toe

3.06 – Evaluate technologies and information systems used to monitor the hydrosphere

- WonderWorks Applicable Exhibits: Earth Tic-Tac-Toe, Space Update

3.08 – Recognize that the good health of environments and organisms requires: monitoring of the hydrosphere, water quality standards, methods of water treatment, maintaining safe water quality, stewardship

- WonderWorks Applicable Exhibits: Earth Tic-Tac-Toe

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Competency Goal 4: The learner will conduct investigations and utilize technology and information systems to build an understanding of chemistry

4.02 – Evaluate evidence that elements combine in a multitude of ways to produce compounds that account for all living and nonliving substances

- WonderWorks Applicable Exhibits: Bubble Lab

4.04 – Describe the suitability of materials for use in technological design

- WonderWorks Applicable Exhibits: Bubble Lab

4.05 – Identify substances based on characteristic physical properties

- WonderWorks Applicable Exhibits: Bubble Lab, How Cold is it?, Tesla Coil

4.06 – Describe and measure quantities related to chemical/physical changes within a system

- WonderWorks Applicable Exhibits: Bubble Lab, How Cold is it?, Tesla Coil

4.07 – Identify evidence supporting the law of conservation of matter

- WonderWorks Applicable Exhibits: Bubble Lab

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4.10 – Describe risks and benefits of chemicals

- WonderWorks Applicable Exhibits: Earth Tic-Tac-Toe

Competency Goal 5: The learner will conduct investigations and utilize appropriate technologies and information systems to build an understanding of evidence of evolution in organisms and landforms

5.03 – Examine evidence that the geologic evolution has had significant global impact

- WonderWorks Applicable Exhibits: Earth Tic-Tac-Toe, Google Earth

5.04 – Analyze satellite imagery as a method to monitor Earth from space

- WonderWorks Applicable Exhibits: Earth Tic-Tac-Toe, Google Earth

5.05 – Use maps, ground truthing and remote sensing to make predictions

- WonderWorks Applicable Exhibits: Earth Tic-Tac-Toe, Google Earth

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