

Scientific Inquiry

Standard 3-1: The student will demonstrate an understanding of scientific inquiry, including the processes, skills, and mathematical thinking necessary to conduct a simple scientific investigation

- 3 1.2 Classify objects or events in sequential order
 - o <u>WonderWorks Applicable Exhibits:</u> Safe Crackers, Space Update, Cosmic Discovery

3 - 1.3 – Generate questions such as "what if?" or "how?" about objects, organisms, and events in the environment and use those questions to conduct a simple scientific investigation

- <u>WonderWorks Applicable Exhibits:</u> Are you a risk taker?, What are the odds?, How cold is it?, Xtreme 360, Virtual Sports, How high can you jump?, Coin Orbiter, Space Weight
- 3 1.4 Predict the outcome of a simple investigation and compare the result with the prediction
 - <u>WonderWorks Applicable Exhibits:</u> Are you a risk taker?, What are the odds?, How cold is it?,
 Virtual Sports, How high can you jump?, Coin Orbiter, Space Weight
- 3 1.6 Infer meaning from data communicated in graphs, tables, and diagrams
 - <u>WonderWorks Applicable Exhibits:</u> MindBall, Are you a risk taker?, Scan Me, Virtual Sports, How high can you jump?, Coin Orbiter, Space Weight, Memory Sequencer
- 3 1.7 Explain why similar investigations might produce different results
 - <u>WonderWorks Applicable Exhibits:</u> Are you a risk taker?, Scan Me, Virtual Sports, How high can you jump?, Coin Orbiter, Space Weight, Memory Sequencer, MindBall
- 3 1.8 Use appropriate safety procedures when conducting investigations
 - <u>WonderWorks Applicable Exhibits:</u> Hurricane Wind Shack, Tesla Coil, Virtual Sports, Bed of Nails, Xtreme 360, Ropes Challenge Course



Habitats and Adaptations

Standard 3-2: The student will demonstrate an understanding of the structures, characteristics, and adaptations of organisms that allow them to function and survive within their habitats (Life Science)

3 – 2.2– Explain how physical and behavioral adaptations allow organisms to survive (including hibernation, defense, locomotion, movement, food obtainment, and camouflage for animals and seed dispersal, color, and response to light for plants)

- <u>WonderWorks Applicable Exhibits:</u> Earth Tic-Tac-Toe, Roaring Sounds
- 3 2.4 Explain how changes in the habitats of plants and animals affect their survival
 - WonderWorks Applicable Exhibits: Earth Tic-Tac-Toe

Earth's Materials and Changes

Standard 3-3: The student will demonstrate an understanding of Earth's composition and the changes that occur to the features of Earth's surface (Earth Science)

3 – 3.1 – Classify rocks (including sedimentary, igneous, and metamorphic) and soils (including humus, clay, sand, and silt) on the basis of their properties

• WonderWorks Applicable Exhibits: Earth Tic-Tac-Toe

3 – 3.5 – Illustrate Earth's saltwater and freshwater features (including oceans, seas, rivers, lakes, ponds, streams, and glaciers)

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

3 – 3.6 – Illustrate Earth's land features (including volcanoes, mountains, valleys, canyons, caverns, and islands) by using models, pictures, diagrams, and maps

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

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3 – 3.7 – Exemplify Earth materials that are used as fuel, as a resource for building materials, and as a medium for growing plants

• WonderWorks Applicable Exhibits: Earth Tic-Tac-Toe

3 – 3.8 – Illustrate changes in Earth's surface that are due to slow processes (including weathering, erosion, and deposition) and changes that are due to rapid processes (including landslides, volcanic eruptions, floods, and earthquakes)

 <u>WonderWorks Applicable Exhibits</u>: Natural Disasters, Earth Tic-Tac-Toe, Fighter Jets, Space Shuttle Simulators

Heat and Changes in Matter

Standard 3-4: The student will demonstrate an understanding of the changes in matter that are caused by heat

3 – 4.1 – Classify different forms of matter (including solids, liquids, and gases) according to their observable and measurable properties

• <u>WonderWorks Applicable Exhibits</u>: Anti-Gravity Chamber, Bubble Lab, How cold is it?

3 – 4.2 – Explain how water and other substances change from one state to another (including melting, freezing, condensing, boiling, and evaporating)

• WonderWorks Applicable Exhibits: How cold is it?

3 - 4.4 - Identify sources of heat and exemplify ways that heat can be produced (including rubbing, burning, and using electricity)

• <u>WonderWorks Applicable Exhibits:</u> Pulley Power, Strike a Pose, Recollections



Motion and Sound

Standard 3-5: The student will demonstrate an understanding of how motion and sound are affected by a push or pull on an object and the vibration of an object (Physical Science)

3 – 5.2 – Compare the motion of common objects in terms of speed and direction

• WonderWorks Applicable Exhibits: Pulley Power, Coin Orbiter, Xtreme 360

3 - 5.3 - Explain how the motion of an object is affected by the strength of a push or pull and the mass of an object

 <u>WonderWorks Applicable Exhibits:</u> Pulley Power, Virtual Sports, Coin Orbiter, Fighter Jets, Space Shuttle Simulators, Robotic Arms, Wacky Wires, Floor Piano

3-5.4 – Explain the relationship between the motion of an object and the pull of gravity

 <u>WonderWorks Applicable Exhibits:</u> Inversion Tunnel, Anti-Gravity Chamber, Pulley Power, How high can you jump?, Xtreme 360, Fighter Jets, Space Shuttle Simulators, Coin Orbiter, Bed of Nails, Space Weight, Robotic Arms, Mission to Mars,

3 – 5.5 – Recall that vibrating objects produce sound and that vibrations can be transferred from one material to another

- <u>WonderWorks Applicable Exhibits:</u> Roaring Sounds, Harp, Floor Piano
- 3 5.6 Compare the pitch and volume of different sounds
 - WonderWorks Applicable Exhibits: Roaring Sounds, Floor Piano
- 3 5.7 Recognize ways to change the volume of sounds
 - <u>WonderWorks Applicable Exhibits:</u> Roaring Sounds, Floor Piano
- 3 5.8 Explain how the vibration of an object affects pitch
 - <u>WonderWorks Applicable Exhibits:</u> Roaring Sounds, Floor Piano

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