

# WILD Correlations: SCIENCE GRADE 4

| <b>Grade 4 : Embedded Inquiry</b>  |  |
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| <b>Learning Expectations</b>   | <b>Project WILD (W) and Aquatic WILD (AW) Correlations</b>   |
| <p><b>GLE 0407.Inq.1</b> Explore different scientific phenomena by asking questions, making logical predictions, planning investigations, and recording data.</p>  | <p><b>Environmental Barometer, W77</b> - Students go outside to observe and count or to estimate wildlife in an area; they repeat the same procedures in another setting to compare findings and, as an option, make a school "environmental barometer."</p> <p><b>Fashion a Fish, AW56</b> - Students consider how up to 5 characteristics of their "designed fish" would affect what habitat it could survive in.</p> <p><b>Grasshopper Gravity, W4</b> - Students attempt to answer various questions about grasshoppers.</p> <p><b>Habitrekking, W79</b> - Students go outside to conduct an investigation requiring observation, interpretation, and data-gathering skill.</p> <p><b>Learning to Look, Looking to See, W278</b> - Students develop observation skills needed in other inquiry-based activities.</p> <p><b>Plastic Jellyfish, AW128</b> - Students explore the problems in trying to recover spilled plastic pellets, graph the data, and consider the effects of unrecovered pellets (Steps 3-10).</p> <p><b>Silt: A Dirty Word, AW190</b> - Students create a model to simulate changes to a stream and its water flow when silt, sand or both are added to the system.</p> <p><b>Too Close for Comfort, W300</b> - Students experiment with physical distance and levels of comfort in humans, estimate appropriate distances between humans and wildlife under various conditions, hypothesize about indicators of animal discomfort, and summarize reasons to avoid animal discomfort through crowding.</p> <p><b>Water We Eating?, AW83</b> - As an <b>Extension</b>, students classify food products by aquatic habitats or compare aquatic products in typical American supermarkets to those in ethnic markets.</p> |
| <p><b>GLE 0407.Inq.2</b> Select and use appropriate tools and simple equipment to conduct an investigation.</p> <p><b>GLE 0407.Inq.3</b> Organize data into appropriate tables, graphs, drawings, or diagrams.</p> <p><b>GLE 0407.Inq.4</b> Identify and interpret simple patterns of evidence to communicate the findings of multiple investigations.</p> |  |

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| <p><b>GLE 0407.Inq.5</b> Recognize that people may interpret the same results in different ways.</p> <p><b>GLE 0407.Inq.6</b> Compare the results of an investigation with what scientists already accept about this question.</p> |  |  |
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## Grade 4 : Embedded Technology & Engineering

| <b>Learning Expectations</b>  | <b>Checks for Understanding</b>  | <b>Project WILD (W) and Aquatic WILD (AW) Correlations</b> |
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| <p><b>GLE 0407.T/E.1</b> Describe how tools, technology, and inventions help to answer questions and solve problems.</p> <p><b>GLE 0407.T/E.2</b> Recognize that new tools, technology, and inventions are always being developed.</p> <p><b>GLE 0407.T/E.3</b> Identify appropriate materials, tools, and machines that can extend or enhance the ability to solve a specified problem.</p> <p><b>GLE 0407.T/E.4</b> Recognize the connection between scientific advances, new knowledge, and the availability of new tools and technologies.</p> <p><b>GLE 0407.T/E.5</b> Apply a creative design strategy to solve a particular problem generated by societal needs and wants.</p> | <p><b>0407.T/E.1</b> Explain how different inventions and technologies impact people and other living organisms.</p> <p><b>0407.T/E.2</b> Design a tool or a process that addresses an identified problem caused by human activity.</p> <p><b>0407.T/E.3</b> Determine criteria to evaluate the effectiveness of a solution to a specified problem.</p> <p><b>0407.T/E.4</b> Evaluate an invention that solves a problem and determine ways to improve the design.</p> |  |

## Grade 4 : Standard 1 - Cells

| Learning Expectations   | Checks for Understanding  | Project WILD (W) and Aquatic WILD (AW) Correlations |
|---|---|---|
| <p><b>GLE 0407.1.1</b> Recognize that cells are the building blocks of all living things.</p> | <p><b>0407.1.1</b> Use illustrations or direct observations to compare and contrast the basic structures of plant and animal cells.</p> <p><b>0407.1.2</b> Create a basic model of the cell that illustrates different cell structures and describes their functions.</p> |   |

## Grade 4 : Standard 2 - Interdependence

| Learning Expectations  | Checks for Understanding   | Project WILD (W) and Aquatic WILD (AW) Correlations  |
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| <p><b>GLE 0407.2.1</b> Analyze the effects of changes in the environment on the stability of an ecosystem.</p> | <p><b>0407.2.1</b> Analyze how an increase or decrease in competition or predation affects an ecosystem.</p> <p><b>0407.2.2</b> Design a simple experiment to illustrate the effects of competition, predation, and interdependency among living things.</p> | <p><b>Environmental Barometer, W77</b><br/> <b>Ethi-Thinking, W303</b><br/> <b>Habitrekking, W79</b><br/> <b>Plastic Jellyfish, AW128</b><br/> <b>Too Close for Comfort, W300</b><br/> <b>What's That, Habitat?, W56</b></p> |

## Grade 4 : Standard 3 - Flow of Matter and Energy

| <b>Learning Expectations</b>   | <b>Checks for Understanding</b>   | <b>Project WILD (W) and Aquatic WILD (AW) Correlations</b> |
|--|---|--|
| <b>GLE 0407.3.1</b> Demonstrate that plants require light energy to grow and survive.  | <b>0407.3.1</b> Create a food web that illustrates the energy relationships between plants and animals and the key issues or assumptions found in the model.    |  |
| <b>GLE 0407.3.2</b> Investigate different ways that organisms meet their energy needs. | <b>0407.3.2</b> Classify organisms as carnivores, herbivores, or omnivores.<br><br><b>0407.3.3</b> Identify how a variety of organisms meet their energy needs. | <b>Thicket Game, W114</b>                                  |

## Grade 4 : Standard 4 - Heredity

| <b>Learning Expectations</b>   | <b>Checks for Understanding</b>   | <b>Project WILD (W) and Aquatic WILD (AW) Correlations</b> |
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| <b>GLE 0407.4.1</b> Recognize the relationship between reproduction and the continuation of a species.<br><br><b>GLE 0407.4.2</b> Differentiate between complete and incomplete metamorphosis. | <b>0407.4.1</b> Design a simple demonstration that illustrates the relationship between reproduction and survival of a species.<br><br><b>0407.4.2</b> Study the life cycles of a variety of organisms and determine whether these processes illustrate complete or incomplete metamorphosis. | <b>Are You Me?, AW2</b>                                    |

## Grade 4 : Standard 5 - Biodiversity and Change

| Learning Expectations   | Checks for Understanding  | Project WILD (W) and Aquatic WILD (AW) Correlations   |
|---|---|---|
| <p><b>GLE 0407.5.1</b> Analyze physical and behavioral adaptations that enable organisms to survive in their environment.</p> | <p><b>0407.5.1</b> Classify animals according to their physical adaptations for obtaining food, oxygen, and surviving within a particular environment.</p> <p><b>0407.5.2</b> Describe how animal behaviors such as migration, defense, means of locomotion, and hibernation enable them to survive in an environment.</p> <p><b>0407.5.3</b> Investigate tropisms that plants exhibit in response to changes in their environment.</p> | <p><b>And the Wolf Wore Shoes, W180</b><br/> <b>Color Crazy, W2</b><br/> <b>Grasshopper Gravity, W4</b><br/> <b>Fashion a Fish, AW56</b><br/> <b>First Impressions, W178</b><br/> <b>Learning to Look, Looking to See, W278</b><br/> <b>Marsh Munchers, AW34</b><br/> <b>Sockeye Scents, AW61</b><br/> <b>Surprise Terrarium, W120</b><br/> <b>Water Plant Art, AW31</b><br/> <b>Water We Eating?, AW83</b></p> |
| <p><b>GLE 0407.5.2</b> Describe how environmental changes caused the extinction of various plant and animal species.</p>      | <p><b>0407.5.4</b> Gather fossil information to draw conclusions about organisms that exist today.</p> <p><b>0407.5.5</b> Analyze the common causes of extinction and explain how human actions sometimes result in the extinction of a species.</p>  | <p><b>Silt: A Dirty Word, AW190</b></p>   |

## Grade 4: Standard 6 - Omitted

## Grade 4 : Standard 7 – The Earth

| Learning Expectations  | Checks for Understanding   | Project WILD (W) and Aquatic WILD (AW) Correlations                  |
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| <p><b>GLE 0407.7.1</b> Investigate how the Earth’s geological features change as a result of erosion (weathering and transportation) and deposition.</p> | <p><b>0407.7.1</b> Prepare a demonstration to illustrate how wind and water affect the earth’s surface features.</p> | <p><b>Aqua Words, AW29</b><br/> <b>Silt: A Dirty Word, AW190</b></p> |

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|  | <b>0407.7.2</b> Design an investigation to demonstrate how erosion and deposition change the earth's surface.  |  |
| <b>GLE 0407.7.2</b> Evaluate how some earth materials can be used to solve human problems and enhance the quality of life. | <b>0407.7.3</b> List factors that determine the appropriate use of an earth material.<br><br><b>0407.7.4</b> Use data from a variety of informational texts to analyze and evaluate man's impact on non-renewable resources. |  |

## Grade 4 : Standard 8 - The Atmosphere

| <b>Learning Expectations</b>   | <b>Checks for Understanding</b>  | <b>Project WILD (W) and Aquatic WILD (AW) Correlations</b> |
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| <b>GLE 0407.8.1</b> Recognize the major components of the water cycle. | <b>0407.8.1</b> Prepare a model that illustrates the basic features of the water cycle.<br><br><b>0407.8.3</b> Use an illustration to predict and draw conclusions about how weather and climate affect the water cycle. | <b>Aqua Words, AW29</b>                                    |
| <b>GLE 0407.8.2</b> Differentiate between weather and climate.         | <b>0407.8.2</b> Use long term weather data to distinguish between weather and climate.   |  |

## Grade 4 : Standard 9 - Matter

| Learning Expectations   | Checks for Understanding  | Project WILD (W) and Aquatic WILD (AW) Correlations |
|---|---|---|
| <p><b>GLE 0407.9.1</b> Collect data to illustrate that the physical properties of matter can be described with tools that measure weight, mass, length, and volume.</p> <p><b>GLE 0407.9.2</b> Explore different types of physical changes in matter.</p> | <p><b>0407.9.1</b> Use appropriate tools to measure and compare the physical properties of various solids and liquids.</p> <p><b>0407.9.2</b> Compare the causes and effects of various physical changes in matter.</p> |   |

## Grade 4 : Standard 10 - Energy

| Learning Expectations  | Checks for Understanding  | Project WILD (W) and Aquatic WILD (AW) Correlations |
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| <p><b>GLE 0407.10.1</b> Distinguish among heat, radiant, and chemical forms of energy.</p> <p><b>GLE 0407.10.2</b> Investigate how light travels and is influenced by different types of materials and surfaces.</p> | <p><b>0407.10.1</b> Design an investigation to demonstrate how different forms of energy release heat or light.</p> <p><b>0407.10.2</b> Design an experiment to investigate how different surfaces determine if light is reflected, refracted, or absorbed.</p> <p><b>0407.10.3</b> Gather and organize information about a variety of materials to categorize them as translucent, transparent, or opaque.</p> |   |