Amazing Adaptations Wild Workshop

Curriculum Standards and Concept Focus

3rd grade:

- ✓ SC03-S1C1-01: Formulate relevant questions about the properties of objects, organisms, and events of the environment using observations and prior knowledge.
- ✓ SC03-S1C1-02: Predict the results of an investigation based on observed patters, not random guessing.
- ✓ SC03-S1C4-01: Communicate investigations and explanations using evidence and appropriate terminology.
- ✓ SC03-S1C4-03: Communicate with other groups to describe the results of an investigation.
- ✓ SC03-S2C2-02: Explain why a system may not work if a component is defective or missing.
- ✓ SC03-S4C3-04: Describe how plants and animals cause change in their environment.
- ✓ SC03-S4C3-05: Describe how environmental factors (e.g. soil composition, range of temperature, quantity and quality of light or water) in the ecosystem may affect a member organism's ability to grow, reproduce, and thrive.
- ✓ SC03-S4C4-01: Identify adaptations of plants and animals that allow them to live in specific environments.
- ✓ SC03-S4C4-02: Describe ways that species adapt when introduced into new environments.

4th grade:

- ✓ SC04-S1C1-01: Differentiate inferences from observations.
- ✓ SC04-S1C1-02: Formulate a relevant question through observations that can be tested by an investigation.
- ✓ SC04-S1C1-03: Formulate predictions in the realm of science based on observed cause and
 effect relationships.
- ✓ SC04-S1C3-02: Formulate conclusions based upon identified trends in data.
- ✓ SC04-S1C4- 01: Communicate verbally or in writing the results of an inquiry.
- ✓ SC04-S1C4-03: Communicate with other groups or individuals to compare the results of a common investigation.
- ✓ SC04-S3C1-01: Describe how natural events and human activities have positive and negative impacts on environments (e.g., fire, floods, pollution, dams).
- ✓ SC04-S3C1- 02: Evaluate the consequences of environmental occurrences that happen either rapidly (e.g. fire, flood, tornado) or over a long period of time (e.g. drought, melting ice caps, the greenhouse effect, erosion).
- ✓ SC04-S4C1-01: Compare structures in plants (e.g. roots, stems, leaves, flowers) and animals (e.g. muscles, bones, nerves) that serve different function in growth and survival.
- ✓ SC04-S4C3-01: Describe ways various resources (e.g. air, water, plants, animals, soil) are utilized to meet the needs of a population.
- ✓ SC04-S4C4- 01: Recognize that successful characteristics of populations are inherited traits that are favorable in a particular environment.
- ✓ SC04-S4C4-02: Give examples of adaptations that allow plants and animals to survive.
 - Camouflage- horned lizards, coyotes
 - Mimicry- Monarch and Viceroy butterflies
 - Physical- cactus spines
 - o Mutualism- species of acacia that harbor ants, which repel other harmful insects.

5th grade:

SC05-S1C1- 01: Formulate a relevant question through observations that can be tested by an investigation.

- ✓ SC05-S1C1-02: Formulate predictions in the realm of science based on observed cause and
 effect relationships.
- ✓ SC05-S1C3-01: Analyze data obtained in a scientific investigation to identify trends and form conclusions.
- ✓ SC05-S1C3-05: Identify possible relationships between variables in simple investigations (e.g., time and distance; incline and mass of object).
- ✓ SC05-S1C4- 01: Communicate verbally or in writing the results of an inquiry.
- ✓ SC05-S1C4- 03: Communicate with other groups or individuals to compare the results of a common investigation.
- ✓ SC05-S3C1- 01: Explain the impacts of natural hazards in habitats (e.g. global warming, floods, asteroid or large meteor impacts).

6th grade:

- SC06-S1C1- 02: Formulate questions based on observations that lead to the development of a hypothesis.
- ✓ SC06-S1C3-02: Form a logical argument about a correlation between variables or sequence of events (e.g., construct a cause-and-effect chain that explains a sequence of events).
- ✓ SC06-S2C2-03: Apply the following scientific processes to other problem solving or decision making situations:
 - o Observing
 - Questioning
 - o Communicating
 - Comparing
 - Measuring
 - Classifying

- Predicting
- Organizing data
- o Inferring
- Generating hypotheses
- o Identifying variables

- ✓ SC06-S3C1-01: Evaluate the effects of the following natural hazards:
 - o Sandstorm
 - o Hurricane
 - o Tornado
 - o Ultraviolet light
- Lightning-caused fire
 ✓ SC06-S4C3-02: Describe how the following environmental conditions affect the quality of life:
 - o Water quality
 - o Climate
 - o Populations density
 - o smog