

# Kids Who Care Conservation Club 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-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-S2C2-01: Describe how, in a system (e.g. terrarium, house) with many components, the components usually influence one another.
- ✓ SC03-S2C2-02: Explain why a system may not work if a component is defective or missing.
- ✓ SC03-S3C1-02: Describe the beneficial and harmful impacts of natural events and human activities on the environment (e.g. forest fires, flooding, pesticides).
- ✓ SC03-S4C3-03: Explain the interrelationships among plants and animals in different environments:
  - Producers- plants
  - Consumers- animals
  - Decomposers- fungi, insects, bacteria
- ✓ SC03-S4C3-04: Describe how plants and animals cause change in their environments.
- ✓ 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.
- ✓ SC03-S4C4-03: Cite examples of how a species' inability to adapt to changing conditions in the ecosystem led to the extinction of that species.

### 4<sup>th</sup> 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-S2C2-02: Describe the interaction of components in a system (e.g. flashlight, radio).
- ✓ 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-S4C3-01: Describe ways various resources (e.g. air, water, plants, animals, soil) are utilized to meet the needs of a population.
- ✓ SC04-S4C3-02: Differentiate renewable resources from nonrenewable resources.
- ✓ SC04-S4C3- 03: Analyze the effect that limited resources (e.g. natural gas, minerals) may have on an environment.
- ✓ SC04-S4C3-04: Describe ways in which resources can be conserved (e.g. by reducing, reusing, recycling, finding substitutes).

### 5<sup>th</sup> 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-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).
- ✓ SC05-S3C1- 02: Propose a solution, resource, or product that addresses a specific human, animal, or habitat need.
- ✓ SC05-S3C1- 03: Evaluate the possible strengths and weaknesses of a proposed solution to a specific problem relevant to human, animal or habitat needs.

### 6<sup>th</sup> 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:
  - Observing
  - Questioning
  - Communicating
  - Comparing
  - Measuring
  - Classifying
  - Predicting
  - Organizing data
  - Inferring
  - Generating hypotheses
  - Identifying variables
- ✓ SC06-S3C1-01: Evaluate the effects of the following natural hazards:
  - Sandstorm
  - Hurricane
  - Tornado
  - Ultraviolet light
  - Lightning-caused fire
- ✓ SC06-S3C2-01: Propose viable methods of responding to an identified need or problem.
- ✓ SC06-S4C3-02: Describe how the following environmental conditions affect the quality of life:
  - Water quality
  - Climate
  - Populations density
  - Smog

### 7<sup>th</sup> grade:

- ✓ SC07-S1C1-01: Formulate questions based on observations that lead to the development of a hypothesis.
- ✓ SC07-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).
- ✓ SC07-S2C2-03: Apply the following scientific processes to other problem solving or decision making situations:
  - Observing
  - Questioning
  - Communicating
  - Comparing
  - Measuring
  - Classifying
  - Predicting
  - Organizing data
  - Inferring
  - Generating hypotheses
  - Identifying variables

- ✓ SC07-S3C1-01: Analyze environmental risks (e.g. pollution, destruction of habitat) caused by human interaction with biological or geological systems.
- ✓ SC07-S3C1-02: Analyze environmental benefits of the following human interactions with biological or geological systems:
  - Reforestation
  - Construction of dams
  - Habitat restoration
- ✓ SC07-S3C1-03: Propose possible solutions to address the environmental risks in biological or geological systems.
- ✓ SC07-S4C3-03: Analyze the interactions of living organisms with their ecosystems:
  - Limiting factors
  - Carrying capacity
- ✓ SC07-S4C3-04: Evaluate data related to problems associated with population growth (e.g. overgrazing, forest management, invasion of non-native species) and the possible solutions.
- ✓ SC07-S4C3-05: Predict how environmental factors (e.g. floods, droughts, temperature changes) affect survival rates in living organism.

**8<sup>th</sup> grade:**

- ✓ SC08-S1C1-01: Formulate questions based on observations that lead to the development of a hypothesis.
- ✓ SC08-S1C3-03: Interpret data that show a variety of possible relationships between two variables, including:
  - Positive relationship
  - No relationship
  - Negative relationship
- ✓ SC08-S1C4-01: Communicate the results of an investigation.
- ✓ SC08-S2C2-01: Apply the following scientific processes to other problem solving or decision making situations:
  - Observing
  - Predicting
  - Questioning
  - Organizing data
  - Communicating
  - Inferring
  - Comparing
  - Generating hypotheses
  - Measuring
  - Identifying variable
  - Classifying
- ✓ SC08-S3C1-01: Analyze the risk factors associated with natural, human induced, and/or biological hazards, including:
  - Waste disposal of industrial chemicals
  - Greenhouse gasses
- ✓ SC08-S3C1-02: Analyze possible solutions to address the environmental risks associated with chemicals and biological systems.
- ✓ SC08-S4C4-04: Compare the symbiotic and competitive relationships in organisms within an ecosystem (e.g. lichen, mistletoe/tree, clownfish/anemone, native/non-native species)
- ✓ SC08-S4C4-06: Describe the following factors that allow for the survival of living organisms:
  - Protective coloration
  - Seed dispersal
  - Beak design
  - Pollination