

## Unifying Theme: Animal Studies

### Essential Standard and Clarifying Objectives

**4.L.1 Understand the effects of environmental changes, adaptations and behaviors that enable animals (including humans) to survive in changing habitats.**

**4.L.1.1** Give examples of changes in an organism's environment that are beneficial to it and some that are harmful.

**4.L.1.2** Explain how animals meet their needs by using behaviors in response to information received from the environment

**4.L.1.4** Explain how differences among animals of the same population sometimes give individuals an advantage in surviving and reproducing in changing habitats.

**4.L.2 Understand food and the benefits of vitamins, minerals, and exercise.**

**4.L.2.1** Classify substances as food or non-food items based on their ability to provide energy and materials for survival, growth and repair of the body.

**4.L.2.2** Explain the role of vitamins, minerals and exercise in maintaining a healthy body.

### Unpacking

What does this clarifying objective mean a child will know, understand and be able to do?

**4.L.1.1** Students know that for any particular environment, some kinds of plants and animals survive well, some survive less well and some do not survive at all. When the insect population grows in an area that is frequented by insects-eating birds, this is advantageous for the birds. Conversely, if the insect populations are decreased by disease in a similar scenario, the population of birds would be stressed and likely reduced.

**4.L.1.2** Students know that animals collect information about the environment using their senses. Animals also exhibit instinctive (inborn) behaviors that help them to survive. Students know that in animals, the brain processes information, and signals the performance of behaviors that help the organism survive.

**4.L.1.4** Students know that there is variation among individuals of one kind within a population. Students know that sometimes this variation results in individuals having an advantage in surviving and reproducing. Survival advantage is not something that is acquired by an organism through choice; rather it is the result of characteristics that the organism already possesses.

**4.L.2.1** Students know that living things derive energy from their food. Plants produce their own food, while other organisms must consume plants or other organisms in order to meet their food (energy) needs.

**4.L.2.2** Students know that humans have needs for vitamins, minerals, and exercise in order to remain healthy. Students know that vitamins and minerals are found in healthy foods, as well as dietary supplements. Students also know that movement is essential to the growth, development and maintenance of the human body and its systems.