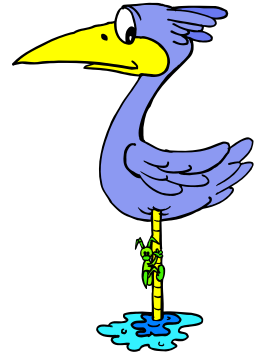


Middle School Bird Adaptation/ID Description and TEKS Overview

During this hands-on field study, students will focus on behavioral and physical adaptations of birds, their inherited traits and how these characteristics are used to enhance their survival. Students will learn the role birds play as biological control agents, bioindicators and vehicles of biodiversity. Migration will be discussed as well as how biotic and abiotic factors affect migration patterns, habitat and bird populations. Students will use binoculars and field guides to identify birds they see as they hike along the boardwalk out over the wetland.



5th Grade TEKS

- The student conducts classroom and outdoor investigations following home and school safety procedures and environmentally appropriate and ethical practices. (1)
- The student knows how to use a variety of tools and methods to conduct science inquiry. i.e. Binoculars, field guides, white boards (4.A)
- Observe the way organisms live and survive in their ecosystem by interacting with the living and non-living elements. (9.A)
- Predict the effects of changes in ecosystems caused by living organisms. (9.C)
- The student knows that organisms undergo similar life processes and have structures that help them survive within their environments. (10)
- Compare the structures and functions of different species that help them live and survive. (10.A)
- Differentiate between inherited traits of different species that help them live and survive. (10.B)

6th Grade TEKS

- The student, for at least 40% of instructional time, conducts laboratory and field investigations following safety procedures and environmentally appropriate and ethical practices. (1)
- The student knows how to use a variety of tools and safety equipment to conduct science inquiry. i.e. Binoculars, field guides, white boards (4.A)
- Organisms within these taxonomic groups share similar characteristics which allow them to interact with the living and nonliving parts of their ecosystem. (12)
- Describe biotic and abiotic parts of an ecosystem in which organisms interact. (12.E)
- Diagram the levels of organization within an ecosystem, including organism, population, community and ecosystem. (12.F)

7th Grade TEKS

- The student, for at least 40% of the instructional time, conducts laboratory and field investigations following safety procedures and environmentally appropriate and ethical practices. (1)
- The student knows how to use a variety of tools and safety equipment to conduct science inquiry. i.e. Binoculars, field guides, white boards (4.A)
- The student knows that there is a relationship between organisms and the environment. (10)
- Observe and describe how different environments support different varieties of organisms. (10.A)
- Describe how biodiversity contributes to the sustainability of an ecosystem. (10.B)
- The student knows that populations and species demonstrate variation and inherit many of their unique traits through gradual processes over many generations. (11)
- Explain variation within a population or species by comparing external features, behaviors or physiology of organisms that enhance their survival. (11.B)
- The student knows that living systems at all levels of organization demonstrate the complementary nature of structure and function. (12)
- Investigate and explain how internal structures of organisms have adaptations that allow specific function. i.e. hollow bones in birds (12.A)

8th Grade TEKS

- The student, for at least 40% of instructional time, conducts laboratory and field investigations following safety procedures and environmentally appropriate and ethical practices. (1)
- The student knows how to use a variety of tools and safety equipment to conduct science inquiry. i.e. Binoculars, field guide, white boards (4.A)
- The student knows that interdependence occurs among living systems and the environment and that human activities can affect these systems. (11)
- Describe predator/prey as they occur in food webs within freshwater ecosystems. (11.A)
- Investigate how organisms and populations in an ecosystem depend on and may compete for biotic and abiotic factors. (11.B)