

Content Standard and Benchmarks Grade 4	Main Elements of Birds Module that apply to standards
Standard:Benchmark 1:1, 1:2, 1:3, 1:4, 1:5	In previous modules, students have collected data about their site, including mapping of the site, identification of landforms, and identification and analysis of water and snow on the site. Students are asked to explore the site and make predictions about where they may or may not find birds within their site. Students will make observations of where they find birds over a period of time and will report their data to the class. Students will make predictions about feeding behavior and types of food necessary to attract birds to the site.
3:1, 3:2, 3:3, 3:4	Students explore bird anatomy and function with relationship to understanding what birds eat and where to expect to find birds based on their anatomy. Students relate bird diets to beak size and structure. Students explore migration routes and begin to observe changes that have occurred in bird migration during recent years. Students explore ideas about what may be causing bird migration changes and begin to extrapolate the positive and negative consequences of climate change related to birds.
5:3, 5:4, 5:5	Students will collect and report their bird observation data with the class. Students explore the possible impacts of global climate change on bird behavior and feeding patterns. Stories related to Indian folklore of various birds are discussed in relationship to what bird behaviors could have lead to the development of Indian stories.

The content standards that are addressed in the module are the following:

Content Standard 1: Students through the inquiry process, demonstrate the ability to design, conduct, evaluate, and communicate the results and form reasonable conclusions of scientific investigations.

Benchmarks (End of Grade 4)

1. develop the abilities necessary to safely conduct scientific inquiry, including (a step-by-step sequence is not implied): (a) asking questions about objects, events, and organisms in the environment, (b) planning and conducting simple investigations
2. select and use appropriate tools including technology to make measurements (including metric units) and represent results of basic scientific investigations
3. use data to describe and communicate the results of scientific investigations
4. use models that illustrate simple concepts and compare those models to the actual phenomenon
5. identify a valid test in an investigation

Content Standard 3: Students, through the inquiry process, demonstrate knowledge of characteristics, structures and function of living things, the process and diversity of life, and how living organisms interact with each other and their environment.

Benchmarks (End of Grade 4)

1. Identify that plants and animals have structures and systems that serve different functions for growth, survival, and reproduction
2. Identify, measure, and describe basic requirements and nutritional needs for an organism
3. Describe and use models that trace the life cycles of different plants and animals and discuss how they differ from species to species
4. Explain cause and effect relationships between nonliving and living components within ecosystems; and explain individual response to the changes in the environment including identifying differences between inherited, instinctual, and learned behaviors

Content Standard 5: Students, through the inquiry process, understand how scientific knowledge and technological developments impact communities, cultures and societies.

Benchmarks(End of Grade 4)

3. simulate scientific collaboration by sharing and communicating ideas to identify and describe problems
4. use scientific knowledge to make inferences and propose solutions for simple environmental problems (can be modified to include)
5. identify how the knowledge of science and technology influences the development of the Montana American Indian cultures