Backyard Birding
Educational Standards

Kindergarten
S.IP.00.11 Make purposeful observation of the natural world using the appropriate senses.
S.IP.00.12 Generate questions based on observations.
S.IP.00.14 Manipulate simple tools (for example: hand lens, pencils, balances, non-standard objects for measurement) that aid observation and data collection.
S.IA.00.12 Share ideas about science through purposeful conversation.
S.IA.00.13 Communicate and present findings of observations.
S.IA.00.14 Develop strategies for information gathering (ask an expert, use a book, make observations, conduct simple investigations, and watch a video).
S.RS.00.11 Demonstrate scientific concepts through various illustrations, performances, models, exhibits, and activities.
L.OL.00.11 Identify that living things have basic needs.
L.OL.00.12 Identify and compare living and nonliving things.

First Grade
S.IP.00.11 Make purposeful observation of the natural world using the appropriate senses.
S.IP.00.12 Generate questions based on observations.
S.IP.01.13 Plan and conduct simple investigations.
S.IP.01.14 Manipulate simple tools (for example: hand lens, pencils, rulers, thermometers, rain gauges, balances, non-standard objects for measurement) that aid observation and data collection.
S.IA.01.12 Share ideas about science through purposeful conversation.
S.IA.01.14 Develop strategies for information gathering (ask an expert, use a book, make observations, conduct simple investigations, and watch a video).
S.RS.01.11 Demonstrate scientific concepts through various illustrations, performances, models, exhibits, and activities.
L.OL.01.13 Identify the needs of animals.
L.OL.01.21 Describe the life cycle of animals including the following stages: egg, young, adult; egg, larva, pupa, adult.
L.HE.01.11- Identify characteristics such as body coverings, beak shape, number of legs, and body parts that are passed on from parents to young.
L.HE. 01.12- Recognize the differences between an adult and a young animal.
L.OL.E.4 Classification- Organisms can be classified on the basis of observable characteristics.

Second Grade
S.IP.02.11 Make purposeful observation of the natural world using the appropriate senses.
S.IP.02.12 Generate questions based on observations.
S.IP.02.13 Plan and conduct simple investigations.
S.IA.02.12 Share ideas about science through purposeful conversation.
S.IA.02.13 Communicate and present findings of observations.
S.IA.02.14 Develop strategies and skills for information gathering and problem solving (books, internet, ask an expert, observation, investigation, technology tools).

S.RS.02.11 Demonstrate scientific concepts through various illustrations, performances, models, exhibits, and activities.
S.RS.02.15 Use evidence when communicating scientific ideas.
P.PM.02.12 Describe objects and substances according to their properties (color, size, shape, texture, hardness, liquid or solid, sinking or floating).

Third Grade

S.IP.03.11 Make purposeful observation of the natural world using the appropriate senses.
S.IP.03.12 Generate questions based on observations.
S.IP.03.13 Plan and conduct simple and fair investigations.
S.IA.03.11 Summarize information from charts and graphs to answer scientific questions.
S.IA.03.12 Share ideas about science through purposeful conversation in collaborative groups.
S.IA.03.13 Communicate and present findings of observations and investigations.
S.IA.03.14 Develop research strategies and skills for information gathering and problem solving.
S.RS.03.11 Demonstrate scientific concepts through various illustrations, performances, models, exhibits, and activities.
S.RS.03.18 Describe the effect humans and other organisms have on the balance of the natural world.
L.OL.03.32 Identify and compare structures in animals used for controlling body temperature, support, movement, food-getting, and protection (for example: fur, wings, teeth, scales).
L.OL.03.42 Classify animals on the basis of observable physical characteristics (backbone, body coverings, limbs).
L.EV.03.12 Relate characteristics and functions of observable body parts to the ability of animals to live in their environment (sharp teeth, claws, color, body coverings).

Fourth Grade

S.IP.04.11 Make purposeful observation of the natural world using the appropriate senses.
S.IP.04.12 Generate questions based on observations.
S.IP.04.13 Plan and conduct simple and fair investigations.
S.IA.04.12 Share ideas about science through purposeful conversation in collaborative groups.
S.IA.04.13 Communicate and present findings of observations and investigations.
S.IA.04.14 Develop research strategies and skills for information gathering and problem solving.
S.RS.04.18 Describe the effect humans and other organisms have on the balance of the natural world.
L.OL.04.16 Determine that animals require air, water, and a source of energy and building material for growth and repair.
L.EV.04.21 Identify individual differences (color, leg length, size, wing size, leaf shape) in organisms of the same kind.
L.EV.04.22 Identify how variations in physical characteristics of individual organisms give them an advantage for survival and reproduction.
L.EC.04.11 Identify organisms as part of a food chain or food web.

Fifth Grade

S.IP.05.11 Generate scientific questions based on observations, investigations, and research.
S.IP.05.12 Design and conduct scientific investigations.
S.IP.05.16 Identify patterns in data.
S.IA.05.13 Communicate and defend findings of observations and investigations using evidence.
S.RS.05.17 Describe the effect humans and other organisms have on the balance in the natural world.

L.OL.05.41 Identify the general purpose of selected animal systems (digestive, circulatory, respiratory, skeletal, muscular, nervous, excretory, and reproductive).
L.OL.05.42 Explain how animal systems (digestive, circulatory, respiratory, skeletal, muscular, nervous, excretory, and reproductive) work together to perform selected activities.
L.HE.05.11 Explain that the traits of an individual are influenced by both the environment and the genetics of the individual.
L.EV.05.11 Explain how behavioral characteristics (adaptation, instinct, learning, habit) of animals help them to survive in their environment.
L.EV.05.12 Describe the physical characteristics (traits) of organisms that help them survive in their environment.
L.EV.05.21 Relate degree of similarity in anatomical features to the classification of contemporary organisms.

Sixth Grade

S.IP.06.11 Generate scientific questions based on observations, investigations, and research.
S.IP.06.12 Design and conduct scientific investigations.
S.IA.06.13 Communicate and defend findings of observations and investigations using evidence.
L.EC.06.11 Identify and describe examples of populations, communities, and ecosystems including the Great Lakes region.
L.EC.06.21 Describe common patterns of relationships between and among populations (competition, parasitism, symbiosis, predator/prey).
L.EC.06.22 Explain how two populations of organisms can be mutually beneficial and how that can lead to interdependency.
L.EC.06.23 Predict how changes in one population might affect other populations based upon their relationships in the food web.
L.EC.06.32 Identify the factors in an ecosystem that influence changes in population size.
L.EC.06.41 Describe how human beings are part of the ecosystem of the Earth and that human activity can purposefully, or accidentally, alter the balance in ecosystems.
L.EC.06.42 Predict possible consequences of overpopulation of organisms, including humans, (for example: species extinction, resource depletion, climate change, pollution).