

SCIENCE

NORTH CAROLINA STANDARD COURSE OF STUDY

FORCES AND MOTION

2.P.1 Understand the relationship between sound and vibrating objects.

- 2.P.1.1 Illustrate how sound is produced by vibrating objects and columns of air.
- 2.P.1.2 Summarize the relationship between sound and objects of the body that vibrate – eardrum and vocal cords.

MATTER: PROPERTIES AND CHANGE

2.P.2 Understand properties of solids and liquids and the changes they undergo.

- 2.P.2.1 Give examples of matter that change from a solid to a liquid and from a liquid to a solid by heating and cooling.
- 2.P.2.2 Compare the amount (volume and weight) of water in a container before and after freezing.
- 2.P.2.3 Compare what happens to water left in an open container over time as to water left in a closed container.

EARTH SYSTEMS, STRUCTURES AND PROCESSES

2.E.1 Understand patterns of weather and factors that affect weather.

- 2.E.1.1 Summarize how energy from the sun serves as a source of light that warms the land, air and water.
- 2.E.1.2 Summarize weather conditions using qualitative and quantitative measures to describe:
 - Temperature
 - Wind direction
 - Wind speed
 - Precipitation
- 2.E.1.3 Compare weather patterns that occur over time and relate observable patterns to time of day and time of year.
- 2.E.1.4 Recognize the tools that scientists use for observing, recording, and predicting weather changes from day to day and during the seasons.

STRUCTURES AND FUNCTIONS OF LIVING ORGANISMS

2.L.1 Understand animal life cycles.

- 2.L.1.1 Summarize the life cycle of animals:
 - Birth
 - Developing into an adult
 - Reproducing
 - Aging and death
- 2.L.1.2 Compare life cycles of different animals such as, but not limited to, mealworms, ladybugs, crickets, guppies or frogs.

EVOLUTION AND GENETICS

2.L.2 Remember that organisms differ from or are similar to their parents based on the characteristics of the organism.

- 2.L.2.1 Identify ways in which many plants and animals closely resemble their parents in observed appearance and ways they are different.
- 2.L.2.2 Recognize that there is variation among individuals that are related.

SCIENCE

EXTENDED CONTENT STANDARDS

FORCES AND MOTION

EX.2.P1 Understand that vibrations create motion.

EX.2.P.1.1 Demonstrate how constant pushing and pulling produce vibrations.

MATTER, PROPERTIES AND CHANGE

EX.2.P2 Understand properties of solids and liquids.

EX.2.P.2.1 Identify objects and Materials as solid or liquid (e.g. dry vs. wet).

EX.2.P.2.2 Compare water in solid and liquid states.

EX.2.P.2.3 Understand that heating and cooling water changes its state.

EARTH SYSTEMS, STRUCTURES AND PROCESSES

EX.2.E.1 Understand change and note patterns of weather that occur from day to day.

EX.2.E.1.1 Compare daily weather conditions (same, different).

EX.2.E.1.2 Recognize cold and hot temperatures.

STRUCTURES AND FUNCTIONS OF LIVING ORGANISMS

EX.2.L.1 Compare characteristics of animals

EX.2.L.1.1 Identify physical characteristics (head, tail, eyes, ears, nose, mouth, legs, paws, beak, feathers, fur) in a variety of animals.

EX.2.L.1.2 Compare a variety of animals to determine how they are alike and different (i.e., dog – bark, four legs, tail; cat – meow, four legs, tail; soft/hard, big/little).

ECOSYSTEM

EX.2.L.2 Identify characteristics of various environments and the resources they provide to help people survive.

EX.2.L.2.1 Identify different environments (mountains, beach, ocean/lakes/ponds, forests).

EX.2.L.2.2 Identify living organisms (animals, people, plants) found in various environments.

EX.2.L.2.3 Identify that people need water, food and shelter and that these may be found in their environment.