



Next Generation Science Standards Applied to Talk About Trees Classroom Programs Kindergarten

Life Science – Standard K-LS1.1

From Molecules to Organisms: Structures and Processes

Students who demonstrate understanding can: Use observations to describe patterns of what plants and animals (including humans) need to survive.

Disciplinary Core Ideas

*Organization for Matter and Energy Flow in Organisms

-All animals need food in order to live and grow. They obtain their food from plants or from other animals. Plants need water and light to live and grow.

Science and Engineering Practices

*Analyzing and Interpreting Data (Analyzing data in K-2 builds on prior experiences and progresses to collecting, recording and sharing observations.)

-Use observations (firsthand or from media) to describe patterns in the natural world in order to answer scientific questions.

Connections to Nature of Science

*Scientific Knowledge is Based on Empirical Evidence

-Scientists look for patterns and order when making observations about the world.

Crosscutting Concepts

*Patterns

-Patterns in the natural and human designed world can be observed and used as evidence.

TAT Classroom Programs: Tree Talk #1 - Tree Talk #2 - Outdoor Program

Earth and Space Science – Standard K-ESS2.2

Earth's Systems

Students who demonstrate understanding can: Construct an argument supported by evidence for how plants and animals, including humans can change the environment to meet their needs.

Disciplinary Core Ideas

*Biogeology

-Plants and animals can change their environment.

Science and Engineering Practices

*Engaging in argument from Evidence (Engaging in argument from evidence in K-2 builds on experiences and progresses to comparing ideas and representations about the natural and designed world(s).

-Construct an argument with evidence to support a claim.

Crosscutting Concepts

*Systems and System Models

-Systems in the natural and designed world have parts that work together.

Talk About Trees Classroom Programs: Tree Talk #1 - Tree Talk #2 - Outdoor Program

Earth and Space Science – Standard K-ESS3.1
Earth and Human Activity

Students who demonstrate understanding can: Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live.

Disciplinary Core Ideas

*Natural Resources

–Living things need water, air and resources from the land and they live in places that have the things they need. Humans use natural resources for everything they do.

Science and Engineering Practices

*Developing and Using Models (Modeling in K-2 builds on prior experiences and progresses to include using and developing models (i.e.: diagrams, drawing, physical replica, diorama, dramatization, storyboard) that represent concrete events or design solutions.)

–Use a model to represent relationships in the natural world.

Crosscutting Concepts

*Systems and System Models

–Systems in the natural and designed world have parts that work together.

Talk About Trees Classroom Programs: Tree Talk #1 - Tree Talk #2

Engineering Design – Standard K-2 ETS1.2

Students who demonstrate understanding can: Develop a simple sketch, drawing or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

Disciplinary Core Ideas

*Developing Possible Solutions

–Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people.

Science and Engineering Practices

*Developing and Using Models (Modeling in K-2 builds on prior experiences and progresses to include using and developing models (i.e.: diagrams, drawing, physical replica, diorama, dramatization, storyboard) that represent concrete events or design solutions.)

–Develop a simple model based on evidence to represent a proposed object or tool.

Crosscutting Concepts

*Structure and Functions

–The shape and stability of structure of natural and designed objects are related to their function.

Talk About Trees Classroom Program: Paper Making