

It's Ecology Lesson Plan

Title of Lesson: Explore How Energy Flows Through A Food Chain

Grade Level: K-3

Time:45 minutes

Next Generation Science Standard

K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.

Examples of patterns could include that animals need to take in food but plants do not; the different kinds of food needed by different types of animals; the requirement of plants to have light; and, that all living things need water.]

Students will use pictures and yarn to create a food web that includes the sun, green plants, herbivores, omnivores, and carnivores in order to explore how energy flows through the food chain.

Content Areas: Language Arts, Science and Music

Key Vocabulary:

Before reading, focus on vocabulary. Read the glossary words and their definitions.

Ecology - The study of how living things relate to one another and where they live

Ecosystems - A group of living things that live together in a particular area

Food Chain - A system of living things in which each member is eaten in turn by another living thing

Fungus - A group of flowerless plants, such as mushrooms, that feed on dead things

Habitat - A place where a living thing naturally lives and grows

Organism - A living thing

Related - Belonging to the same family, group or kind

(No Tech/Low Tech Part of Lesson)

Objectives:

Students will:

-Learn about and discuss food chains and determine how all living things depend directly or indirectly on green plants for food.

-Read and sing along to It's Ecology. This can be found in print and eBook format. The music is available on the CD in the back of the book. It can also be found online to stream or download.

-Construct a food web and explain how energy flows through the web.

-Use pictures and yarn to create a food web that includes the sun, green plants, herbivores, omnivores, and carnivores.

Materials:

Pictures of plants and animals from Padlet

Ball of yarn

Preparation:

Print off animal pictures from the Padlet and cut apart. Have students tape one picture to their shirts.

Lesson Procedure:

Read It's Ecology to students. Discuss the book and food webs. The students can sing and read along too. The music can be found on the CD in the back of the book and also online.

Students will create their own food web. Have students stand in a large circle. The student with the sun picture will be in the middle of the circle. Students will look around and ask themselves who could give energy to them and who they could get energy from.

Explain to the students the ball of yarn represents the energy in the environment. The student who represents the sun will hold the end of the yarn and toss the ball to someone who can use the energy from the sun. When that student catches the yarn, they will pass the yarn to someone else who could use the energy. The ball of yarn will then be returned to the sun and repeated until every student is part of the food web.

Next, ask students to gently tug on the string they are holding. Ask the students that felt the tug to begin tugging on their string. This will help show the effects of even one small organism dying out in an ecosystem.

Technology Twist/Extension to the Lesson (High Tech)

This lesson could easily be tied into technology as well using a mind mapping digital tool or app such as Popplet.

<http://popplet.com/> website and Popplet app can be found here.

Read It's Ecology to student. Discuss the book and food webs. The students can sing and read along too. Students could even read it themselves using the book or eBook

within My Capstone Library. The music can be found on the CD in the back of the book and be streamed or downloaded at cantatalearning.com.

Students will create their own food web using the mind mapping tool Popplet. They can work individually or with a partner. Have them focus on one animal they want to highlight.

Students can use It's Ecology and Capstone's PebbleGO Animals for research into their food web.

When students have completed their food web, have them share with the class.

Standards:

CCSS.ELA-Literacy.L.K.6, CCSS.ELA-Literacy.SL.1.4, CCSS.ELA-Literacy.SL.1.5, CCSS.ELA-Literacy.SL.1.6, CCSS.ELA-Literacy.SL.2.4, CCSS.ELA-Literacy.SL.2.5, CCSS.ELA-Literacy.SL.2.6, CCSS.ELA-Literacy.SL.3.4, CCSS.ELA-Literacy.SL.3.5, CCSS.ELA-Literacy.SL.3.6



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