
TEKS K.9 Organisms and environments. The student knows that plants and animals have basic needs and depend on the living and nonliving things around them for survival. The student is expected to:

- (A) differentiate between living and nonliving things based upon whether they have basic needs and produce offspring; and
 - (B) examine evidence that living organisms have basic needs such as food, water, and shelter for animals; and air, water, nutrients, sunlight, and space for plants.
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Background Knowledge

Things can be classified as living or nonliving. Living organisms have basic needs that must be met in order to survive. Nonliving objects do not grow or reproduce, and do not have basic needs. It is possible to determine whether an object is living or nonliving by observing an object's behavior, and examining evidence of basic needs being met. Animals will try to meet their basic needs for food, water, and shelter; while plants will grow in certain ways to obtain water, sunlight, and clear space in which to grow.

Essential Questions

How can we tell if something is living?

(Living things have basic needs that must be met if they are to survive and reproduce. You can tell if something is living by observing to see if it works to meet its basic needs.)

What about something that was once living, but is now dead?

(Once living things that have died are still considered living things.)

What makes something nonliving?

(Nonliving things do not grow or reproduce. They do not have basic needs.)

What basic needs must living things have in order to survive and reproduce?

(Animals must have food, water, and shelter; while plants must have air, water, sunlight, and clear space to grow.)

What about objects such as a wooden chair that is made from trees? Is it living or nonliving?

(The chair is man-made from a living thing, but the chair does not have basic needs, and cannot reproduce itself. It is nonliving.)

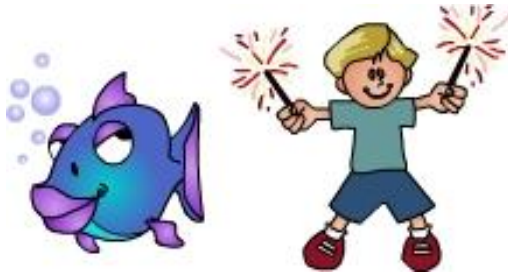
Comparing Fish And Humans

Objective:

To examine evidence of the basic needs of fish and humans and to identify them as living organisms based on their abilities to meet basic needs.

Materials:

1. Construction paper
2. Drawing materials



Background Information:

Fish move using their fins. Fish have gills to get the oxygen they need to survive. Fish use their mouths to eat food, and often find plants or rocks for shelter and protection. Humans use their arms and legs to move. Humans breathe in air through their nose mouth to get the oxygen they need to live. The oxygen goes into their lungs, which deliver it to the rest of their bodies via blood. Humans use their mouth to eat food, and have houses or apartments for shelter.

How to Conduct:

1. Give each student a piece of construction paper.
2. Have students divide the paper into two sections and draw a picture of a fish on one side, and a picture of themselves on the other side. The drawing must include food, water, air, and shelter. Ask students to label the basic needs on both sides.
3. Point to the fish drawing and ask: Is the fish living or nonliving? How do you know? Is the person living or nonliving? How do you know?
4. Have students compare and contrast how both meet their needs.

Scavenger Hunt: Living And Nonliving Things

Objective:

To collect and classify objects and identify them as living or nonliving.



Materials:

A clipboard

A pencil

Safety goggles (students will explain the need to wear the goggles and wear the goggles during the outdoors investigation)

A sheet of paper divided into two columns

Safety:

Remind students not to touch living organisms, including plants, without permission.

How to Conduct:

1. Give each student a clipboard, a pencil, and a piece of paper divided into two columns. Ask students to write the word LIVING at the top of the first column, and NONLIVING at the top of the second column.
2. Have the students go on a scavenger hunt around the school grounds to find examples of both living and nonliving things.
3. Encourage them to draw pictures or use words to document what they find in each column.
4. Make a class graph titled “Living and nonliving things found around the school” to represent the information gathered.

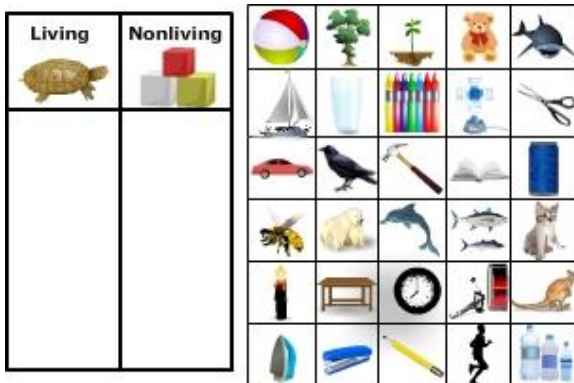
Collage: Living And Nonliving Things

Objective:

To demonstrate an understanding of living and nonliving things by making a collage, placing the pictures in the correct column.

Materials:

- Construction paper
- Magazines, calendars, fliers, newspapers, or catalogs
- Glue or tape
- Scissors (Remind students about how to safely carry and use scissors.)



How to Conduct:

Have students make a collage to demonstrate their understanding of the difference between living and nonliving things.

Instruct students to complete the following steps:

1. Fold a large piece of construction paper in half and label one side LIVING and the other side NONLIVING.
2. Cut out pictures from old magazines, calendars, fliers, newspapers, or catalogs.
3. Glue or tape the pictures in the correct category.