Living and Nonliving

Summary

Students will be able to identify what is living and nonliving in the world around them.

Materials

- Is It a Living thing? Introducing Living Things book
- Classifying Living and Nonliving Worksheet (pdf)

Pencil

Crayons

- Murder Mystery Script (pdf)
- Mystery Grid (pdf)
- Mystery Clues (pdf)

3 white pieces of copy paper

Scissors

Magazines

Glue stick

- Living and Nonliving Things Tchart (pdf)

Live worm

Gummy worm

Paper plates

Books:

- Is It a Living Thing? Introducing Living Things
 - , by Bobbie Kalman, ISBN 0778732541
- Living and Nonliving (Nature Basics)
 - , by Lindeen and Carol K.; ISBN 142962888x
- What's Alive
 - , by Kathleen Weidner Zoehfeld; ISBN 0064451321
- Living and Nonliving (My World of Science)
 - , by Angela Royston; ISBN 043113782X

Background for Teachers

Your students may have trouble distinguishing between living, nonliving, and onceliving things. Children may consider everything that moves to be alive, including cars and clouds. Often children pretend that objects are alive so that they can talk to them. Children also have difficulty comparing onceliving objects with objects that have never lived. Living and nonliving scientific terms. Children are accustomed to hearing living or dead. By exploring various objects, students will be able to distinguish between things that are living, things that were onceliving, and things that are nonliving. Characteristics of living things are: able to grow, reproduce (make more organisms like itself), eat and drink, move, and are made of cells. To be alive, an object must do all five.

Intended Learning Outcomes

- a. Identify characteristics of living things (i.e. growth, movement, reproduction.
- b. Identify characteristics of nonliving things.

Instructional Procedures

Invitation to Learn:

Read Is It a Living Thing? Introducing Living Things to the students.

Read the book.

Have students ask questions, as well as you ask questions to the students along the way.

Instructional Procedures:

Classifying Living and Nonliving

Give each student a *Classifying Living and Nonliving Worksheet*. As a class discuss the different attributes that living things have.

Living things are made of cells.

Living things obtain and use energy.

Living things grow and develop.

Living things reproduce.

Living things respond to their environment.

Living things adapt to their environment.

After you have come up with the various attributes for living and nonliving things, have the students list them in the circles provided.

Give each student a blank piece of paper.

Have the students use a black crayon to write the acronym CEERG at the top of their paper, in big letters.

Have students use different colored crayons to write each of the following vertically underneath the letters: C stands for cells, the first E for Energy, the second E for Environment -- respond and adapt, the R for Reproduce, and the G for Growth and development. Something must have each of these characteristics to be considered living. If it is missing one of the characteristics listed above, it is nonliving.

Murder Mystery

Students will participate in a living and nonliving murder mystery. Start by reading part one of the "Murder Mystery Script."

Split the class into science groups.

Give the students time to work together as a group to design and create an identity for their group. Allow adequate time for students to discuss, brainstorm, and complete a group marker. Distribute a "Mystery Grid" to each group. Students will use the clue cards to help them keep track of deduce who or what didn't commit the crime. With each clue deduction, students will cross off a living or nonliving thing on their mystery grid. This will help them to stay organized in the midst of problem solving. In the end, the person or thing that is not crossed off is the culprit. Distribute the first "Mystery Clue" to each group.

Students will read the clue and decide whether the person or thing given is living or nonliving. As a class, discuss whether the person or thing is living or nonliving and why. Then distribute the second clue card, and so forth.

Lesson and Activity Time Schedule:

Each lesson is 55 minutes.

Each activity is 30 minutes.

Total lesson and activity time is 90 minutes.

Extensions

Provide students with the *Living and Nonliving Things Tchart*. Provide students with pictures, have them look in magazines, or have them draw pictures in each column. Discuss what the pictures in each column have in common.

Divide the class into their science groups. Distribute a live worm and a gummy worm on separate plates to each team. Students will observe both worms for five to seven minutes. They

will then discuss their observations with their groups. Have them draw a picture of each in their journals and write whether it is living or nonliving and why. Then discuss as a class which items are living and nonliving. Discuss that even though the gummy worm can move in reaction to being touched, it is not living because it does not need food, air, water, and it does not reproduce.

Have students clean the desks. Sort items into living and nonliving. Put a small living animal (cricket, ant, beetle, ladybug, etc.) that is in a small container in a few desks.

Sort into living and nonliving boxes.

Family Connections:

Students can play the mystery game with their families.

Advanced learners can make up their own murder mystery game.

Students look for living and nonliving things in their home.

Have special needs/English Language Learners work with a partner to help them learn the concepts being taught.

Assessment Plan

By using informal assessment, you can determine what your students know or don't know through these activities.

Students can hand in black lines of the activities to you can assess what they are missing. Have students write in their journal after each activity to assess themselves in these activities. You can look over their journals.

Students could be asked to respond to questions in their journal that would give evidence of understanding.

Have the students make a diorama. In the first diorama they will put pictures (drawn, made from scraps, or found in magazines) of living things. In the second diorama they will put pictures that are nonliving. Glue the two dioramas side by side.

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