TEACHER GUIDE

PROGRAM NAME

DESCRIPTION

Investigate what it means to be alive through careful observation and imaginary play. Explore bugs with magnifying lenses, discover how a seed gets its energy to grow, and practice classifying museum objects. We'll be acting like scientists and the animals they study as we crawl, swim, fly and slither our way to a deeper understanding of what it means to be alive.

OBJECTIVES

- List the characteristics of living things.
- Sort once-living and non-living objects.
- Plan how to help a seed grow into an adult plant.
- Act out different types of movement.

OHIO'S LEARNING STANDARDS

Pre-Kindergarten

Science: Science Inquiry and Application – Inquiry

- Explore objects, materials, and events in the environment.
- Describe, compare, sort, classify, and order.

Science: Life Science – Explorations of Living Things

- With modeling and support, identify physical characteristics and simple behaviors of living things.

Kindergarten

Science: Life Science – Physical and Behavioral Traits of Living Things

- Living things have specific characteristics and traits.
- Living things have physical traits and behaviors, which influence their survival.

ELA: Language Standards – Vocabulary Acquisition and Use

- Sort common objects into categories (e.g., shapes, foods) to gain a sense of

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the concepts the categories represent.

ELA: Writing Standards – Research to Build and Present Knowledge

- With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.

Math: Measurement and Data – Identify, describe, and compare measurable attributes

- Directly compare two objects with a measureable attribute in common to see which object has “more of” or “less of” the attribute, and describe the difference.

BEFORE YOUR PROGRAM & HOW TO SET UP YOUR ROOM

- Please have student desks clear before the program begins or clear a space for students and museum educator to sit on the floor.
- Please provide an empty desk or small table for the museum educator to set up display items.
- If booking multiple programs, transitions will be easier if museum staff sets up in only one location.
- Additional set-up requirements:
  - This program has 4 stations. Please be prepared to separate class into 4 groups.
  - Please provide 2 tables and 2 floor spaces for the stations.
  - At least 1 adult is needed to assist with the stations.
- Introduce the vocabulary and additional resources provided below.

VOCABULARY

animal – an eating, breathing organism with a nervous system (insect, fish, snail, etc.).

artificial – made by humans, may or may not resemble an actual living organism.

dead – no longer living.

fake – something made to look like something else on purpose.

fossil – preserved plant or animal from prehistoric time.

living – organisms that grow, reproduce, use air, use energy, are composed of cells, and can change or react to the environment.

man-made – objects made by people. Could be made of materials from once-living objects or never-living objects.

natural – objects from nature.

non-living – lacking the characteristics of a living organism (either a dead organism or an object that was never alive).

plant – living organisms that produce their own food.

pretend – make believe, fake, false.

real – actual, not fake, imaginary or pretend. “Real” does not necessarily mean “alive”.

reproduce – to produce young or seeds to begin a new generation.

seed – the living part of a plant that can start a new generation.

cells – the smallest part of a living organism.

energy – what living organisms get from food in order to perform daily functions.

space – the room that all living things need in order to live and get food.

EXTENSION ACTIVITIES

1. Read stories about plants and animals. Recognize stories that give plants and/or animals human characteristics: e.g. talking animals, dancing flowers.

2. Create a treasure hunt for plants and animal products in your school.

3. Examine your lunch (including containers) and decide what parts are once-living, or made from once-living organisms.

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EDUCATOR RESOURCE CENTER (ERC)

Educator Resource Center
CLEVELAND MUSEUM OF NATURAL HISTORY
Celebrating 30 years of supporting science education

The Educator Resource Center is dedicated to providing teachers with the classroom resources and professional development they need to create dynamic, enriching, and inquiry-based experiences for their students.

Contact the ERC at 216-231-2075 for information on individual or school membership.

Visit the Museum's ERC website for more information
https://www.cmnh.org/ERC

MATERIALS FOR LOAN

With close to 100 dioramas and over 130 thematic teaching kits, our lending library has the materials you need to make science come alive for your students.

If you're interested in additional resources be sure to check out the following ERC materials or browse ERC materials online at
https://cmnherc.myturn.com/library/

EDUCATOR PROFESSIONAL DEVELOPMENT

Get connected to trending teaching methods, best practices in science education, and hot topics in current scientific research.

To learn more visit
https://www.cmnh.org/learn/educator-resource-center/educator-workshops

Email inquiries to erc@cmnh.org.

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