

Next Generation Science Standards  
K-LS1-1

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*Exploring Marine Science and Aquaculture* Grades K-2

## Living vs Non-living

Developed by the University of Maine Cooperative Extension  
Revised and formatted by Maine Agriculture in the Classroom

### Activity Description:

This activity will help students to differentiate between living and non-living and to identify characteristics of living things.

### Learning Objectives:

Students will

- Identify living and non-living things

### Essential Questions:

- What is an environment?
- What is a habitat?
- What is in a habitat?
- What makes something a living thing?

### Vocabulary List:

- *Living*: an organism that is alive, exhibiting characteristics such as movement, reproduction, sensitivity, growth, respiration, excretion, and feeding.
- *Non-living*: something that is not alive.
- *Reproduction*: the process that produces babies, young animals, or new plants.
- *Sensitivity*: the capacity of an organism to respond to stimulation.
- *Respiration*: the act or process of breathing.
- *Excretion*: the act or process of passing waste from the body.

### Materials:

- Living vs. Nonliving Cards
- Newsprint or Whiteboard
- Living/Nonliving booklet sheets\*
- Colored pencils
- Game board, dice, markers
- *Are Trees Alive?* By Debbie S. Miller



**\*Note:** When making booklets for class, the footer at the bottom of the booklet pages needs to be cut off in order for the booklets to be assembled properly.

## Procedure:

### Engage

1. Ask youth to tell you about the following objects as you point them out around the room or outside: live plant, artificial plant, plastic insect, real insect.
2. Gear the discussion toward what is real or unreal, and living or nonliving.
  - a. *How can you tell if something is living or nonliving?*
  - b. *This is brainstorming - there are no right or wrong answers.*
3. Tell them they will do an activity to find the differences between living and nonliving things.

### Explain/Explore

4. Hand out one "Living vs. Nonliving" card to each participant, explaining that we are going to play a sorting game to help us pick out the living and nonliving things.
5. If you have more participants than cards, group them in teams and distribute a similar number of cards to each group.
  - a. *We are going to sort our pictures into three groups.*
  - b. *The three groups are LIVING, NONLIVING, and NOT SURE.*
6. Prompt each participant who thinks their card is "LIVING" to say what their picture is, show it to everyone else, and ask why they chose to put it in the "living" category. Resist the urge to correct any misconceptions at this point, let them explain their ideas first!
7. Repeat step 6 for youth who think their cards are "NONLIVING" and "NOT SURE."
8. Begin a discussion about the differences between the things in the three categories, and revisit their initial thoughts about how to tell if something is living or nonliving.
9. Make a list on a whiteboard or newsprint with all of the things the youth think the "LIVING" things have in common.

### Elaborate

10. Now, choose an object that everyone can agree is LIVING (like a puppy). Go through the list and cross off anything that isn't true for a puppy, and put a checkmark next to everything that is.
11. Choose another living thing, but this time choose something that will cross off some more misconceptions.
12. Keep going through all of the cards (even the "nonliving" and "not sure" cards, sorting them as you go) until you have a list of what they think all the living things have in common.
13. NOTE: the youth may want to cross off some things that aren't obvious to them at this stage. For example, if the list has "it can move" and the object is a tree, you might have to briefly discuss how plants can move and breathe. To elaborate on this, read and discuss *Are Trees Alive?* by Debbie S. Miller.
14. The youth may not think of all of the things that make something "living." At the end, you can fill in the gaps and ask them if they think all of their "living" cards have these characteristics:
  - a. Movement
  - b. Reproduction
  - c. Sensitivity
  - d. Growth
  - e. Respiration
  - f. Excretion
  - g. Feeding



## Evaluate

15. For younger youth, play this song for fun and to reinforce engagement  
[https://www.youtube.com/watch?v=Z\\_aAkuK\\_8nQ](https://www.youtube.com/watch?v=Z_aAkuK_8nQ)
16. Facilitate a discussion about the activity:
  - a. *Did any of the cards surprise you?*
  - b. *Why is it important that we know what things are living and nonliving?*
17. Distribute the blank “It is Living” and “It is Nonliving” booklets to each participant, along with colored pencils.
18. Direct the youth to think about an ocean habitat when drawing in the booklets.
19. Walk around to assist any participant who needs help, and encourage youth to work together in small groups.

## Extension:

- Go outside with journals (cardboard makes for a great writing surface) and list the object they see. When back inside, construct a T chart from their observations and encourage the students to identify the living and nonliving things.
- Play “Is It Living or Nonliving?” Game board is included.

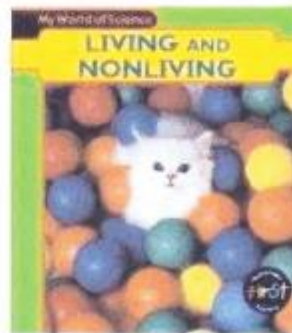
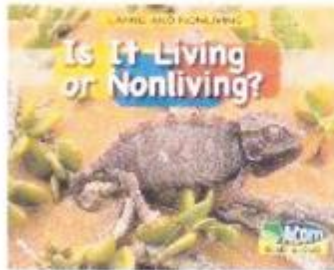
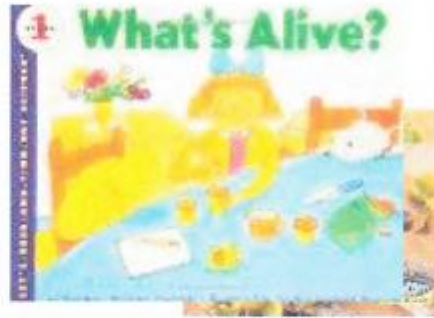
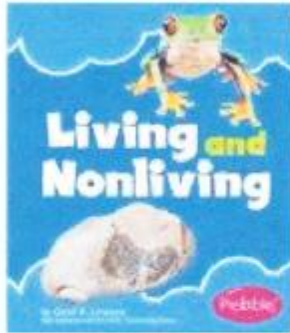
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Books to go with this lesson include:





CAT



ROCK



BOOK



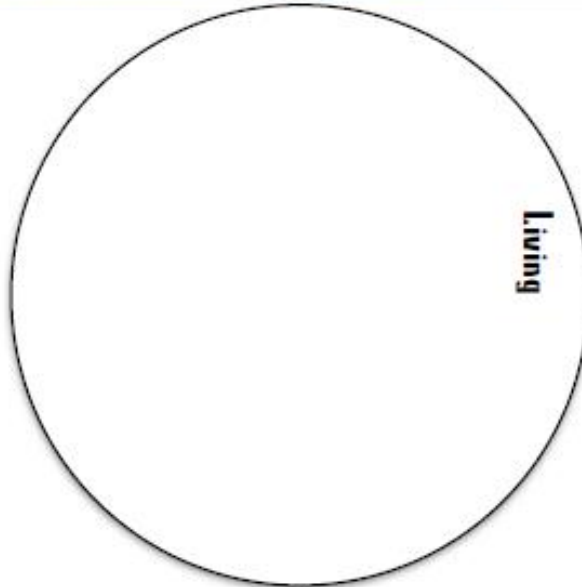
GIRL AND BOY



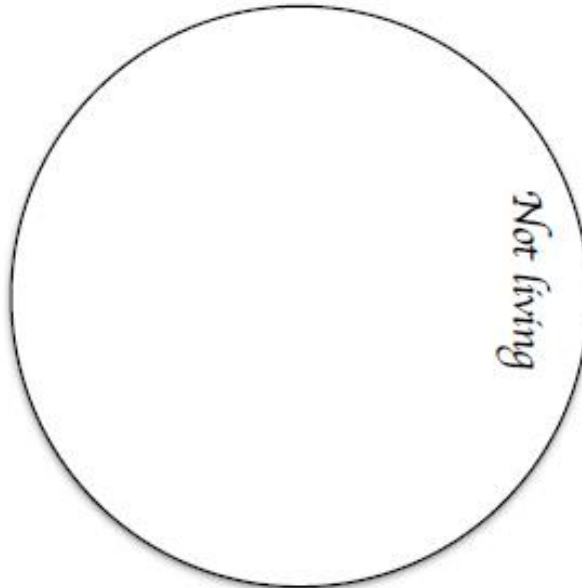
CHICKEN



CAMERA



Living



Not living

As you play the game write in the designated circles what you concluded is living or not living.



TREE



CAR



HOUSE



LION



PENCIL

PHONE



PARROT



An animal is living

7

\_\_\_\_\_ eats for energy

2

I am living/nonliving  
(circle the correct one)

8

It is Living

Written by:

\_\_\_\_\_



3 A \_\_\_\_\_ breathes.

6 A plant is living.

A \_\_\_\_\_ grows. 4

A \_\_\_\_\_ can move by itself. 5













7 A book is not living.

2 A \_\_\_\_\_ does not eat.

A \_\_\_\_\_ is not living.

8

**It is Not Living**

Written by:

\_\_\_\_\_



A \_\_\_\_\_ does not move  
on its own. 5

A \_\_\_\_\_ does not grow. 4

A desk is not living. 6

A \_\_\_\_\_ does not  
breathe. 3

