

Discipline: Science & Technology, Environment & Ecology
Standard Category: Biological Sciences, Ecosystems and their Interactions
Lesson Focus: Classification of living and non-living things

Suggested Level:
 Primary

PA Standard(s):	Related TESOL Standard(s):
3.1.4C: Illustrate patterns that regularly occur and reoccur in nature. 3.3.4A: Know the similarities and differences of living things. 4.6.4A: Understand that living things are dependent on nonliving things in the environment for survival.	Goal 2: To use English to achieve academically in all content areas. Standard 2: Students will use English to obtain, process, construct, and provide subject matter information in spoken and written form.

Lesson Focus:
 Living and non-living things

Teaching Strategies:
 Whole group instruction

Key Objectives in Accordance with TESOL Level:

Pre-Conversational/ Beginning	Intermediate	Advanced
Students will be able to: <ul style="list-style-type: none"> Classify things as living or non-living. 	Students will be able to: <ul style="list-style-type: none"> Classify things as living or non-living and state characteristics for each. 	Students will be able to: <ul style="list-style-type: none"> Classify things as living or non-living and explain the reasoning behind their answers.

Graphic organizers and visual aids

Working in pairs

Outdoor exploration

Discussion/debate

Assessment Strategies:
 Baseline assessment (Class activity sheet)

Teacher observation

Performance assessment

Materials:

- Chart divided into two columns living and non-living
- Pictures living things that are familiar to the students (humans, dogs, cats, plants). Note: If there are living plants and animals available in your classroom they would be more appropriate for this lesson.
- Pictures or actual samples of non-living things (water, soil, rocks, seeds, pens, plastic objects, marbles, glass jars).
- Large sheets of paper and markers
- Copies of buddy worksheet
- Pencils
- Crayons
- Clipboards

Procedures: (ESL suggestions are in italics.)

Note: Prior to teaching this lesson post pictures of living and non-living things around the room. Have additional pictures available for the guided discovery portion of this lesson.

- Show students a picture of a kitten (or other animal) and a child or baby.
- Ask the students how are they alike. Responses may vary.
- Explain to the students that children are like kittens because they were all once babies, they grow and they need on food, water and air to live.

4. Tell students that living things are either plants or animals.
5. Ask students to name some living things (adults, sisters, brothers, flowers, plants, dogs, cats). Print these responses the chart under Living Things.
6. Show students a picture of rock.
ESL students at all levels benefit from the use of visuals.
7. Ask students if a rock is alive. If students are unsure prompt them with questions by asking if a rock needs food and water.
8. Tell students that a rock is known as a non-living thing because it does not need food, water or air and it does not grow.
9. Ask students to name some non-living things (water, air, rocks, marbles, shoes, backpacks). Print these responses on the chart under Non-Living Things.
Beginning ESL students may not feel comfortable participating in whole-group speaking activities. Don't force them to speak. Beginners tend to develop listening skills in English before attempting to speak it.
10. Tell the students that we are all going to become scientists and examine pictures and objects to see if they are living or non-living.
11. Display two large sheets of paper with the headings: living things and non-living things. Explain the characteristics of each thing and print them under the headings. See example below:

Living Things	Non-Living Things
<ul style="list-style-type: none"> • Need food, water and air • Can grow • Create young 	<ul style="list-style-type: none"> • Do not need food, water and air • Cannot grow • Cannot create young

12. Have the students get into pairs.
13. Distribute copies of the buddy worksheet, pencils, crayons and clipboards to students.
14. Walk students around the room to model the expected activity.
15. Take students out to the schoolyard or other safe area in the neighborhood. (You may choose to simply look out the window or use the pictures in your classroom.)
16. Explain to students that they are to work with their partners to find two examples of living, and non-living things found in this area. They must draw the examples in the spaces provided. Encourage them to label their drawings.
Try to pair less proficient students with more proficient "buddies" during exploration activities.
17. After most of the students have completed the assignment, have the students sit in a circle and discuss some of the items they listed in each category. Some items may be confusing. If there are items that cause disagreement, encourage the students to work together (using the characteristics discussed earlier) to come to the most reasonable conclusion.
18. Have students review and correct each answer and their reasoning.

Closure:

Have students compare and contrast the differences between living and non-living things. Responses should include the following:

- Plants and animals are living things that depend on living (plants and animals) and non-living things (air and water) to live.
- Plants and animals grow and have young.
- Non-living things do not need food, water, or air.
- Non-living things do not grow and do not have young.

Assessment:

This lesson offers many assessment opportunities:

- The teacher may choose to use the baseline assessment for an overall comparison of the students' content knowledge before and after the lesson.
- The teacher may also choose to perform informal observations of students using a teacher-created checklist or rubric while they work outdoors with their buddies.

Beginners

Provide students with pictures of objects and have them group the objects under the following labels: Living, Non-Living or Extinct.

Intermediate

Provide students with the same materials as for the beginners, but after the students have grouped the items, ask them to state one or two major characteristics of each group.

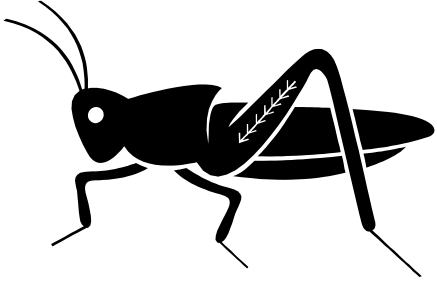

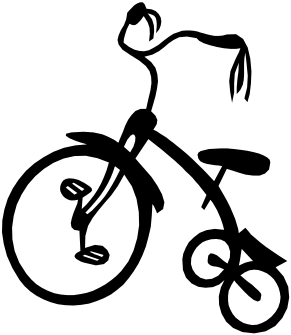
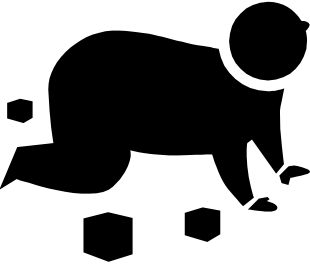
Advanced

Show the students a picture of an object and have them state whether it is Living, Non-Living or Extinct. Then ask the students to justify their answers using information learned during the lesson.

Notes:

- All worksheets are included with this lesson.

A Class Activity: Is It Alive?

 grasshopper	Yes	Why?
	No	Why not?
 tree	Yes	Why?
	No	Why not?
 tricycle	Yes	Why?
	No	Why not?
 baby	Yes	Why?
	No	Why not?

Name: _____

Date: _____

Work with a buddy. Look outside and find two objects to draw in each box.

Living	Non-living	Extinct

--W. Gonzalez-Crespo