



Khaled bin Sultan  
Living Oceans  
Foundation

## STANDARDS

- **CCSS:** RST.9-10.1, 3, 4, 5, 7, 8, 10; RST.11-12.1, 3, 4, 10; SL.9-10.1, 2, 3, 4, 6; SL.11-12.1, 2, 3, 4, 6; HSN.Q.A.1; HSS.IC.A.1
- **NGSS:** HS-LS1-2, HS-LS2-6
- **OLP:** 1.B, 5.B.1, 5.B.5

## ONLINE CONTENTS

- [Ecology Quiz](#)
- [What Is Ecology? Video](#)  
Ecology explores living things, plus the way they interact with one another, and their physical surroundings. A coral reef is a very special type of home, it provides nourishment and shelter to an amazing range of living creatures. They interact with non-living things like rocks and sand, ocean currents, temperature, and much more. A vast web of living and non-living things makes up the ecology of coral reefs.

# ECOLOGY

This lesson is a part of the *Ecology* unit, which explains what ecologists study and how it applies to coral reefs. Below is a summary of what is included in the entire unit.

## UNIT CONTENTS

### A. [Background Information](#)

- Ecology
- Biological Hierarchy of Life
- Ecological Levels of Organization

### B. Lessons

#### [Watch it! What is Ecology?](#)

- A worksheet to accompany the [What is Ecology?](#) video

#### [Factors of the Reef](#)

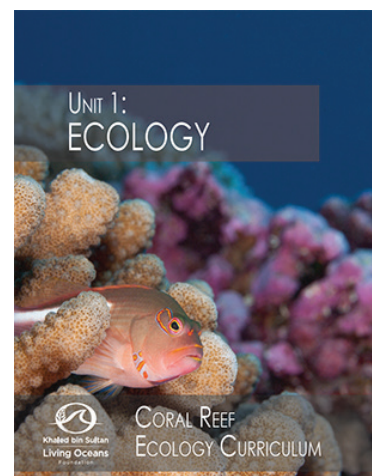
- A lesson to differentiate between inference and observation

#### [Backyard Ecosystem](#)

- An activity to perform a biological survey of an outdoor area

#### [Read It! Lionfish: Scourge of the Caribbean](#)

- A worksheet to accompany the [Lionfish: Scourge of the Caribbean](#) field blog





# WATCH IT!

# WHAT IS ECOLOGY?

**INSTRUCTIONS:** Watch *What is Ecology?* YouTube video (<https://youtu.be/TGR-QGdH3QU>) and answer the following questions.

1. How is ecology related to biology?

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2. 'Oikos-' means \_\_\_\_\_ and '-logos' means \_\_\_\_\_.

3. Define ecology.

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4. List 10 living and 10 non-living things found inside and/or outside your house.

Living	Non-living
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.
7.	7.
8.	8.
9.	9.
10.	10.

5. What are some animals that can be found living in the coral reef ecosystem?

- |          |          |
|----------|----------|
| a. _____ | d. _____ |
| b. _____ | e. _____ |
| c. _____ | f. _____ |

6. What are some abiotic factors or non-living things that interact with coral reefs?

- |          |          |
|----------|----------|
| a. _____ | c. _____ |
| b. _____ | d. _____ |



**VIDEO TRANSCRIPT:**

Ecology is a branch of biology.

The word ecology comes from two Greek words, “oikos” and “logos.” Oikos means house and logos means the study of.

So, ecology is the study of the house or home environment and everything in it.

What’s in your house?

*“In my house there is a cat, hamster, two hermit crabs, bed, couch, tv, carpets, lizard, a refrigerator, four beds, we have sinks, lots of stuffed animals, toothbrushes, three kids and one mom.”*

Around your house might be kids, plants, maybe even a hamster.

These are some of the living things in your environment.

But a lot of things aren’t living, like blocks, tables, books, and shoes, even sunlight.

Ecology explores living things, plus the way they interact with one another and their physical surroundings, whether those surroundings are on land or underwater.

A coral reef is a very special type of home.

It provides nourishment and shelter to an amazing range of living creatures.

Thousands of species of fish can live here, plus turtles, sea urchins, even dolphins – all kinds of marine animals.

They interact with non-living things, like rocks and sand, ocean current, temperature, and much more.

A vast fragile web among living and non-living things makes up the ecology of coral reefs, the home on which the well-being of the surrounding ocean depends.