



**BIODIVERSITY:
ECOSYSTEMS**

SUSTAINABLE COSTA RICA

LESSON 1

SUBJECT	English reading, speaking
AGE / CYCLE	15+, <i>Grade 10 Unit 4</i>
OBJECTIVES	<ol style="list-style-type: none"> 1. Understand the important information in simple, clearly drafted printed materials. 2. Sustain a conversational exchange in the classroom. 3. Express opinions about the fragile world, welcoming questions and others' opinions.
ESTIMATED TIME	40 minutes
MATERIALS	<i>Annexes 1, 2, and video</i>
ESSENTIAL QUESTION OR SCENARIO	<i>Why is it important to focus on sustainable development?</i>
LEVEL - UNIT	10 th Grade, Unit 4
KEY WORDS	Renewable, sustainable, carbon neutral, biodiversity, natural resources, conservation
TYPES	PDF. Make copies of first page of Annex 1 for each student, one copy of second page for teachers.
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EVALUATION GOALS

Students will be able to:

- 1 Skim to identify the main idea in the reading.
- 2 Scan the article and identify the meaning of the numbers.
- 3 Define vocabulary from context in reading.
- 4 Discuss things they could do at school to increase sustainability using “should” and “could.”

DEVELOPMENT

1 WARMUP

5 mins.

Ask students if they have been to Manuel Antonio or other national parks in Costa Rica. What did they see and do there?

Write **sustainable** on the board and ask students to define. (Sustainable (adjective): Sustain, verb: able to continue; sustainable, able to continue without causing damage to the environment.)

2

7 mins.

Practice reading skills.

What is skimming? How do we skim? Why do we skim? Ask students if they have to understand every word in a reading (NO.)

How do we get the main idea? (We skim a piece of writing to get the main idea quickly. We can skim by reading the first and last paragraphs and the first sentence of the other paragraphs.)

Give students 4 min. to skim the article and complete exercise 1. Students share answers with class.

Annex 1, reading

3

8 mins.

Ask students, What is scanning? When do we use scanning? (We scan a piece of writing to rapidly get specific information, such as when we're looking for the times of a particular movie on a website.) Start scanning the text by allowing your eyes to move quickly over a page. As soon as your eye catches an important word or phrase, stop and look for the information you need.

Annex 1

Give students 5 minutes to find the answers to complete exercise 2.

Have students check answers with each other. Are there any questions?

4

10 mins.

Ask students how they can guess the meaning of a word they don't know without using a dictionary when they're reading (guess the meaning from context, which is information around the word.) Have them read the whole article and complete exercise 3. Check the meanings together. They won't be exact, but should include the basic idea.

Renewable: Renew means to make new again. Renewable energy replaces itself naturally,

Carbon-neutral: takes the same amount of carbon dioxide out of the air as it produces.

Neutral doesn't add to or take away from.

Biodiversity: the variety of plants and animals in a particular place

Conservation: protection of natural things

Natural resources: things that exist in nature and can be used by people, like oil, trees

(definitions come from ldoceonline.com)

Annex 1

5

7 mins.

Ask students how we talk about things that are possible, and how we give advice (could and should.) Give an example sentence, such as, "We could eat ice cream for lunch, but we should eat healthy food" and ask students for more examples. Divide students into groups of 3 and ask them to choose the two most important things the school could do to increase sustainability, using "should" and "could."

Teacher circulates, listening to discussions and checking for understanding/correct use of target language.

6

3 mins.

Ask groups to share their ideas.

Students could prepare a project to plan actions for the school, such as recycle bins.

ANNEX 1

Sustainable Costa Rica

During the first 6 months of 2017, 99% of Costa Rica's electricity came from renewable sources. In the last 30 years, renewable sources such as wind, geothermal, solar and hydroelectric have been responsible for production of nearly 93% of Costa Rica's energy, but this July they broke their own record. Costa Rica has a goal to be the first carbon-neutral country in the world by 2021, and sustainable practices can be observed in every region of the country. It's clear that sustainability is an important part of the culture and traditions of Costa Rica.

The United Nations declared the Savegre River a Biosphere Reserve. Biosphere reserves are special areas for sustainable development that combine the conservation of biodiversity with the proper use of natural resources. Costa Rica already has 4 reserves, but this is the first with coastal marine components, as it includes the marine part of the Manuel Antonio National Park, in Quepos.

The Savegre River stands out for its great biodiversity. The reserve houses 20% of Costa Rica's flora, 54% of the country's mammals and 59% of its birds. The territory also includes 7 protected wilderness areas: Manuel Antonio National Park, Cerro Nara Protective Zone, Portalón Mixed Wildlife Refuge, Hacienda Barú Mixed Wildlife Refuge, Los Santos Forest Reserve, Quetzales National Park and Cerro Vueltas Biological Reserve.

It is clear that Costa Ricans are proud to live in and protect their country's rich environment. The small nation holds 5% of the world's known biodiversity, 3.5% of all marine life, and 30% of the country's territory is protected natural land. Costa Rica is a model for sustainable practices for countries all over the world.

First Reading Skim the whole article and identify the main idea. Write one sentence explaining it here.

Second Reading You have 5 minutes to scan the article for the numbers and write the words next to them.

- A. 2017
- B. 93%
- C. 2021
- D. 4
- E. 54%
- F. 5%
- G. 30%

Third Reading Now find the underlined words and guess the meaning from context.

- 1. Renewable
- 2. Carbon-neutral
- 3. Conservation
- 4. Biodiversity
- 5. Natural resources

Adapted from <https://www.newswire.ca/news-releases/costa-rica-achieves-two-new-records-in-sustainability-effort-636713503.html>

Sustainable Costa Rica

Teacher's Key

During the first 6 months of 2017, 99% of Costa Rica's electricity came from renewable sources. In the last 30 years, renewable sources such as wind, geothermal, solar and hydroelectric have been responsible for production of nearly 93% of Costa Rica's energy, but this July they broke their own record. Costa Rica has a goal to be the first carbon-neutral country in the world by 2021, and sustainable practices can be observed in every region of the country. It's clear that sustainability is an important part of the culture and traditions of Costa Rica.

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First Reading Skim the whole article and identify the main idea. Write one sentence explaining it here. (Answers may vary.)

Costa Rica is known all over the world for its sustainable practices. The Savegre River Biosphere reserve is a new area recognized by the United Nations.

Second Reading You have 5 minutes to scan the article for the numbers and write the words next to them.

- A. **2017:** *99% of Costa Rica's energy came from renewable resources*
- B. **93%:** *Geothermal, hydroelectric, and solar sources of energy production.*
- C. **2021:** *Goal for carbon neutrality.*
- D. **4:** *Previous number of nation's biosphere reserves.*
- E. **54%:** *Savegre Reserve's percentage of Costa Rica's mammals.*
- F. **5%:** *Costa Rica has 5% of the world's biodiversity.*
- G. **30%:** *Percentage of protected land in Costa Rica.*

Third Reading Now find the underlined words and guess the meaning from context.

1. **Renewable:** renewable energy replaces itself naturally.
2. **Carbon-neutral:** takes the same amount of carbon dioxide out of the air as it produces.
3. **Conservation:** protection of natural things
4. **Biodiversity:** the variety of plants and animals in a particular place.
5. **Natural resources:** things that exist in nature and can be used by people, like oil, trees.

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