



**BIODIVERSITY:
ECOSYSTEMS**

RAINFOREST 101

LESSON 1

SUBJECT	English reading, speaking
AGE / CYCLE	12 Second Cycle, 15+
OBJECTIVES	<ol style="list-style-type: none"> 1. Understand simple explanations if given slowly and clearly. 2. Engage in the writing process for simple publications.
ESTIMATED TIME	40 minutes
MATERIALS	<i>Annexes 1, 2, and video</i>
ESSENTIAL QUESTION OR SCENARIO	<i>What are rainforests and what happens if they disappear?</i>
LEVEL - UNIT	6 th Grade, Unit 4
KEY WORDS	amphibian, nocturnal, upside down, carnivore, camouflage, defense mechanism
TYPES	PDF, Video
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EVALUATION GOALS

Students will be able to:

- 1 Pronounce and define words from the video.
- 2 Write a paragraph from facts about red-eyed tree frogs.
- 3 Write a summary as a group from information in paragraphs.

DEVELOPMENT

1 WARMUP

12 mins.

Ask students what frogs they have seen in Costa Rica and write their names (or descriptions) on the board.

Have students watch the following video two times.

https://www.youtube.com/watch?v=emIe_GOohc8

First Viewing

Ask students to listen for main ideas and words they recognize, then share their ideas with the class and write them on the board.

Add the following words to the list, if needed, and have students write them in their notebooks:

amphibian, nocturnal, upside down, carnivore, camouflage, defense mechanism.

Practice pronouncing the words together, noticing word stress and number of syllables.

Amphibian (3 syllables, stress on 2nd syllable)

Nocturnal (3 syllables, stress on 2nd syllable)

Upside down (2 words, 3 syllables, stress on 1st syllable)

Carnivore (3 syllables, stress on 1st syllable)

Camouflage (3 syllables, stress on 1st syllable)

Defense Mechanism (1st word, 2 syllables, stress on 2nd; 2nd word, 4 syllables, stress on 1st syllable.)

Then ask students to watch the video a second time, and think about the meaning of the words and listen for facts about the frogs.

*Video,
Annex I*



1 WARMUP (CONT.)

12 mins.

Second Viewing

Put up the pages in Annex 1 and ask students to match the definitions.

Amphibian **D**

Nocturnal **F**

Upside Down **E**

Carnivore **A**

Camouflage **B**

Defense Mechanism **C**

Ask students to give you facts from the video, and write them on the board as information, not sentences. For example: 3 eyelids, sticky toe pads, lives in tree, sleep in day, sleep upside down under leaf, red eyes, blue and yellow bottoms, predators. With the class, together make sentences to describe the frogs. Examples: "Frogs have three eyelids and sticky toe pads. They sleep under leaves during the day. They can show their red eyes and their blue and yellow bottoms to scare away predators."

*Video,
Annex 1*

2

12 mins.

Divide the students into four groups, and give each group one section of the reading (Annex 2). Tell each group to write sentences from the facts in their section. Each student in the group needs to make their own copy of the sentences.

Annex 2

3

16 mins.

Number students in each group from one to four, and make new groups by putting all of the ones together, all of the twos, etc, so you have at least one student from each of the first groups in the second group. Tell students to share with their group the information in their reading. Then students should work together to create a summary of the reading with a sentence or two from each of the four groups. Students should all sign their names and give the final document to the teacher at the end of the class.

ANNEX 1

amphibian
nocturnal
upside down
carnivore
camouflage
defense mechanism

- A. eats meat***
- B. color or shape of animal
that hides appearance***
- C. method for self-protection***
- D. animal that can live on
land and water***
- E. top on bottom and bottom on
top***
- F. active at night***

ANNEX 2

Costa Rica's Famous Red-eyed Tree Frog

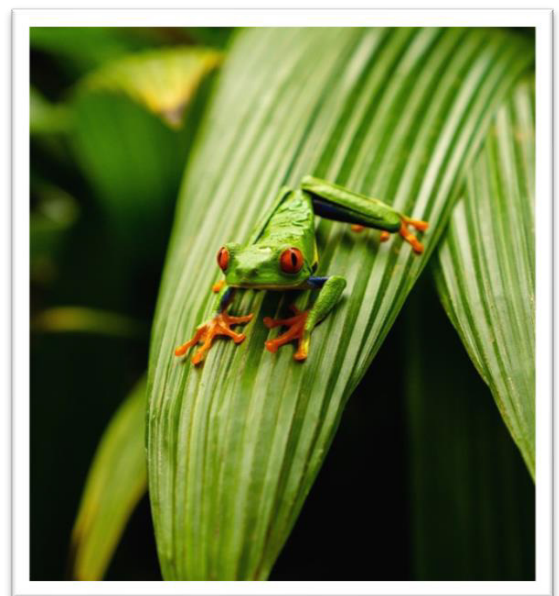
Habitat of the Red-Eyed Tree Frog

- Trees of Costa Rican rainforests
- Adults upper parts of trees
- Rarely touch ground as adults.
- Feet webbed, tiny suction cups on the bottom
- Clings to leaves without falling to the ground.
- Long, sticky tongues to catch food
- Eat insects, may also eat smaller frogs.



Adapted for Survival

- Bright colors safety.
- Excellent jumpers, hide without moving in leaves.
- Use legs to cover blue and yellow stripes, keep eyes closed,
- When danger nearby, opens eyes wider and spreads its toes, color.
- Snakes or birds see bright colors, surprised, slowed down.
- Tree frog escapes.



Mating Habits

- Mates in rainy season, May and June.
- Male frogs loud chirps, attract female frogs
- After mating, female fertilized eggs under leaf.
- Tiny tadpoles fall to ground into puddles
- Live there about 80 days
- Young frogs find trees, live about five years.



It's All in the Eyes

- Red eyes with very narrow pupils that run vertically (human pupils are round.)
- Body mostly bright green, stripes of yellow and blue and orange or red feet.
- Skin on back thick and rough, but belly soft.



Where to View the Red-Eyed Tree Frog

- Monteverde Cloud Forest Reserve,
- Tortuguero National Park
- Manuel Antonio National Park.
- Most active daytime 24-29 degrees
- Nighttime between 19-25 degrees.