

## **The Garden of Écos User's Guide**

**Ages: 11 to 14**

**Running time: 10:49**

### **1. Synopsis**

Animals and plants are living peacefully together in a large garden, until one night predators attack and ravage their habitat. To restore the natural balance in their environment, the residents of the garden are reluctantly drawn into a war. This animated film without words is directed and written by Oscar<sup>®</sup>-winner Co Hoedeman.

### **2. Film Outline**

Animals live together in harmony with their shared habitat: bats leave their cave during the night to swallow mosquitoes; a mammal teaches its offspring to eat fruit; a creature shaped like a small white ball gives birth to young, which serve as food for reptiles; an envelope-like animal snacks on leaves, and so on.

Under cover of darkness, a group of predators invades the garden and ravages the fruit bush they find there. Come next morning, the garden's residents are worried, but they all help each other to gather up the remaining fruit, which they leave in the care of a young mammal. Unfortunately, he falls asleep during his watch. The nocturnal pillagers return to take away the rest of the fruit and store it in a cave.

All piled up, the fruit begins to rot. Eventually, it explodes, releasing a toxic gas which kills the mosquitoes. The envelope-animal tries to recover the rest of the fruit, in order to give it to the mammal (for whom the fruit is its primary source of food). But it is too late. The fruit is too rotten, and another source of nutrients will have to be found. In the meantime, the disappearance of the bats has led to an explosion in the number of mosquitoes, which become an ever-greater nuisance to the other creatures.

One of the animals discovers a way to kill the mosquitoes by spraying them with a pink substance found in a type of mushroom. The whole community gets involved in spraying the mosquitoes, which fall to the ground and are eaten by the white ball creatures. But this makes the creatures become covered with brown spots; they can no longer serve as food for the reptiles.

Now the predators return. This time they attack the trees, defoliating them. The garden's creatures try to stop them. The conflict escalates into a war. The small mammal is killed in battle, and its mother howls with pain. The battle is suspended and the creatures gather around the mother.

Enraged, the animals living in the garden manage to chase away the predators, who go away while contemplating the scene of destruction they have left behind.

### 3. Approaches to Using the Film

**The Garden of Écos** is a visually and aurally rich film, allowing instructors to examine several concepts related to the environment (relationships between living beings, ecosystems, balance and imbalance, food web, producers, consumers, decomposers, insecticides, pollution etc.)

This study guide assumes you are showing the video twice.

#### 3.1 Pre-Viewing – First Screening

Tell the students that they will be asked to identify the film's characters and to re-tell the story.

#### 3.2 Discussion

Ask the students the following questions:

- Can you describe the animals shown in the film?
- Can you name them?
- Can you define the role of each creature in relation to the others?

Plan the discussion in such a way that students answer with respect to what they have seen and heard. Once you have elicited key visual and audio points from the students, ask one of them to re-tell the story in his or her own words.

#### 3.3 Pre-Viewing – Second Screening

Ask students to play close attention to the film so they can answer the following questions:

- What causes the fruit to explode?
- What causes the bats to die?
- Why don't the mammals want to eat the fruit anymore?
- Why are there more and more insects?
- Why don't the reptiles want to eat the white balls?

When you are asking the questions, use the names of the animals that the children came up with after the first screening of the film. For instance, if they have not yet determined that the flying creatures are bats, draw their attention to the fact before the second screening.

### 3.4 After the Second Screening

Come back to the questions above, and direct the conversation so that it brings out the links between each event. Ask the students to summarize the story a second time, drawing on their new understanding of the story. Choose one or more of the activities below, depending on your curriculum.

## 4. Goals and Activities — Elementary

### 4.1 Language Arts Goals

- Developing students' ability to communicate orally.

### 4.2 Science Goals

- Developing awareness of the natural environment, and nurturing children's creative imagination to help them solve problems.
- Appreciating the contribution living creatures make to children's physical and mental well-being.
- Researching as much information as possible on one particular creature.
- Describing the ways in which humans make use of domestic animals.
- Acting to conserve wildlife.

### 4.3 Learning Activities

- Re-tell the story, paying close attention to distinguishing between the beginning, middle and end of the story. What are the differences between the beginning and the end?
- Imagine a short dialogue expressing the reactions of animals after the first round of violence. Act out the dialogue in class.
- List the animals that are awake at night and those that are awake during the day, as well as those that cooperate and those that fight. Which are good and which are bad? Why? Explain.
- Invent a name for the substance sprayed onto the mosquitoes in order to kill them. Is this a good way to control the mosquito population? Why or why not?
- Choose an edible plant that contributes daily to human life, and explain its contribution.
- Research the beneficial effects of bats on the environment.
- Name two ways in which snakes are beneficial to humans.
- Discuss which human activities lead to the destruction of wild plants and animals.
- Give two examples that show how humans consume more natural resources than necessary.
- Suggest measures to prevent the loss of a specific plant or animal, and of plant and animal life in general.

## 5. Goals and Activities – Secondary

### 5.1 Language Arts Goals

- Composing an action-oriented story focussed on a specific event, taking into account the elements of written communication.

### 5.2 Ecology Goals

- Identifying toxic substances whose presence in the air or water is a cause of pollution.
- Identifying, from a series of examples, phenomena showing the relationships between living creatures (predation, parasitism, communalism, competition, cooperation).
- Determining the risks and dangers associated with irresponsible exploitation of plant resources.
- Defining the term "circulation of matter."
- Establishing the following links in land-based food chains: producer, herbivore, carnivore, decomposer.
- Defining the term "ecosystem."
- Identifying ways in which energy is wasted.
- Defining the term "capacity to support."
- Determining the risks and dangers caused by the over-exploitation of natural resources and energy.

### 5.3 Learning Activities

- Re-tell the story, emphasizing the theme of how life is interlinked in the garden, and showing how one event leads to another.
- Create an action-oriented story in which life in the garden is changed by the introduction of a new character. Describe and name this character, and imagine at least one new event that results from his or her appearance.
- Distinguish between nocturnal and diurnal creatures; animals that cooperate with each other and those that fight with each other; and creatures that serve as predators and prey.
- Among the film's characters, which are producers and which consumers? Among the consumers, which are carnivores and which herbivores?
- Describe the decomposition process for a specific plant or animal. What conditions lead to decomposition (e.g. fruit removed from a tree or bush and stored in a pile, lack of air, lack of light, excessive heat).
- Describe the garden in a state of balance and one of imbalance. Find examples of balance and imbalance in nature.

- Describe a way in which energy is wasted in the film, and explain what indicates that heat is being produced (e.g. gas, explosions).
- Explain why the reptiles eat the white balls, even while battling alongside them against the predators. Is this a cooperative network or a food chain? Justify your answer.
- Find an example of a solution which in turn becomes a problem (e.g. insecticides poisoning the environment). What conclusions can you draw from the example?
- Describe ways in which irrevocable harm can be caused to the environment (death, ecological imbalance, overburdening an ecosystem's capacity to support).
- Make connections between behaviours shown by creatures in the film and human behaviour.
- Describe a way in which humans abuse natural resources.
- Determine the dangers of over-consumption and waste.
- Suggest changes we can make to our use of plant life.
- Explain in what ways the garden of Écos constitutes an ecosystem.