

# CHAPTER 1

## FIRST STEPS

In this chapter, students are introduced to the EcoVoyageurs and the characters through an introductory activity, two chronicles, posters and discussion questions.

### CONTENTS

- **First Steps – Part I T16**
- **First Steps – Part II T21**

Chronicle Questions,  
Answer Key



EcoPlan



Posters



Student Portfolio



# CHAPTER 1 Part I

## WHAT YOU NEED

- Copies of, or blackline master of How to Describe a Footprint activity, page S4
- Copies of EcoGuardians' 1st Chronicle, pages S6-S11
- Copies of, or blackline master of 1st Chronicle Questions, page S12
- Materials to prepare portfolios
- MP3 Download

## INTRODUCTORY ACTIVITY

1. Prepare for and complete How to Describe a Footprint activity.
2. 1st Chronicle Vocabulary

To help students fully appreciate and understand the chronicles, may wish to introduce this section with this vocabulary exercise. Have the students design a "vocabulary tree" with a trunk and bare branches. They should also design and cut out about 75 blank paper "leaves." On the day before you plan to read the chronicle in class, assign one word from the vocabulary list to each student (or group of students). Ask them to look up the meaning in a dictionary or encyclopedia, or to research it on the Internet. Students should present their word to the class, with a formal definition and a visual representation to illustrate the meaning. The definitions and pictures should be presented on the paper leaves and posted around the "vocabulary tree."

<b>Word list:</b>	environment	chemicals	testimonial	talon
	contaminated	quest	anchored	plunder
	purify	barren	civilization	vision
	generation	legacy	auk	millennia

3. Have the students brainstorm as a class what images the words create. Have students suggest possible storylines that might arise from these words.
4. Divide students into small groups. Assign each student in the groups several new words. Pass out copies of the EcoGuardians' 1st Chronicle and have the groups read it aloud. As the children hear one of the listed words in the story, the student responsible for the word should identify it and supply the meaning. Reassemble the class as a whole and listen to the EcoGuardians' 1st Chronicle MP3 download .



## ACTIVITY

1. Have students assemble a portfolio. This can be a Duo-tang, folder or binder. The EcoGuardian Portfolio will become the working record of any written responses and activities in addition to other information accumulated during the project.
2. Based on their impressions of the chronicle, students should design a cover for their portfolios, and a table of contents. Use the model below as an example of a table of contents.

TABLE OF CONTENTS			
ENTRY & TITLE	ACTIVITY	GRADE	TEACHER'S SIGNATURE
How to Describe a Footprint	Activity	B+	LK
Chronicle #1 Questions	Discussions	A+	LK

### Note to Teacher:

- students record the number and title of each entry
  - the teacher checks, grades and signs upon entry
  - completed entries can constitute an appropriate grade or value
  - a penalty may be assigned for incomplete entries
3. 1st Chronicle Questions. Have students discuss the questions, record their answers and place them in their portfolios. Answers may be recorded in a variety of ways. Suggestions for presenting the answers to the questions include:
    - mind map/web
    - answer questions in the student shield, page S13
    - draw cartoon/comic strip
    - summarize the story and write it on a scroll
    - interview format
    - write a letter from Solana to the kids
    - write a song or poem

## EXTENSIONS

1. Solana has seen many changes in her 100 years on the earth. Think about what the world looks like now. Write down how you would like the world to look in 20 years.

# ANSWER KEY

## HOW TO DESCRIBE A FOOTPRINT ACTIVITY

To understand why the footprint metaphor is appropriate, students need to examine what makes up a real footprint. This concrete activity will help students make the connection to the more abstract concept of the Ecological Footprint.

**Outcome :** To understand the difference between quantitative and qualitative observations.

### Vocabulary

- Qualitative observations: Observations that can be made using our senses, but without measurement, e.g., colour, smell, texture.
- Quantitative observations: Observations that can be measured, e.g., length, volume, weight, height.

### What You Need

- an orange
- a box of sand/dry gravel/mud/papier mâché paste
- ruler(s)
- scale(s)

### Activity

1. Explain to the students the difference between qualitative and quantitative observations.
2. Hold up an orange or pass it around the class and have the students describe it.

<i>Qualitative Observations</i>	<i>Quantitative Observations</i>
<ul style="list-style-type: none"><li>• orange-coloured rind</li><li>• white strings on orange sections</li><li>• round</li><li>• smooth</li><li>• fragrant</li></ul>	<ul style="list-style-type: none"><li>• 200 grams</li><li>• 10 segments</li><li>• 12 cm in diameter</li><li>• 10 seeds</li></ul>

3. Have students fill three boxes with different materials (e.g., wet sand, mud, gravel). Place their foot in each box and remove it to see the impression it left. Have students record their observations.



# ANSWER KEY

## Answers for Page S5

1. Qualitative observations are things that we can see, or describe without using rulers, or scales, or measurements.
2. Qualitative observations can tell you how much things weigh, how long they are, how tall they are. These observations are things that we can measure.
3. Answers will vary. Each type of observation provides us with different information. By using both quantitative and qualitative information we can be more precise.
4. Answers will vary. We qualitatively observe many of the things in our environment—does the water look clean? is there smog over our city? and so on. Quantitative observations allow us to measure some of these things, and provide objective data to base our decisions and actions on.
5. Answers will vary.
6. Answers will vary.

## ANSWER KEY



### QUESTIONS

#### EcoGuardians' 1st Chronicle

#### THE JOURNEY BEGINS

The purpose of the first chronicle is for students to realize their responsibility to the environment. The earth is personified by Solana, the Tree of Life. She provides the young EcoGuardians, Kieran, Piper and Heather with the quest to study their impact on the environment and to search out ways to reduce this impact.

Chronos, the Keeper of Time draws attention to the passing of time, and to the continuing devastation of the earth as our footprints become larger. He provides the clues to direct the children (and the students) during their voyage.

**Some suggested answers to the questions on page S12 are provided below.**

1. Solana is the spirit of an old maple tree. She represents life and she is sick. Solana has been poisoned by the water she drinks, the polluted air she breathes and bad soil she grows in. Solana is also sick because she has no friends (other trees). Her role in the story is to tell the kids about the voyage they must make to save her.
2. The voyage that Solana sends the three kids on is to discover ways to lessen their impact on the earth and to share their experiences with others. What the kids learn on their voyage will save Solana, who represents life (life, referring to humans in particular). The earth will continue, but humans may not if the quest does not succeed.
3. Footprints are the marks that people leave on the earth as they go about their daily lives.
4. Chronos is the Keeper of Time. Chronos is going to give the students their tasks.
5. Solana is referring to the time that people have left to help the environment.
6. An EcoGuardian is somebody who has pledged to protect the environment.
7. The student's pledge is a written commitment to protect our home the earth.



# CHAPTER 1 PART II

## WHAT YOU NEED

- Copies of EcoGuardians' 2nd Chronicle, pages S14-S18
- Copies of, or blackline master of 2nd Chronicle Questions, page S19
- Tree of Life posters
- MP3 Download

## INTRODUCTORY ACTIVITY

### 1. 2nd Chronicle Vocabulary

To help students fully appreciate and understand the chronicles, you may wish to introduce this section with this vocabulary exercise. On the day before you plan to read the chronicle in class, assign one word from the vocabulary list to each student (or group of students). Ask them to look up the meaning in a dictionary or encyclopedia, or to research it on the Internet. Students should present their word to the class, with a formal definition and a visual representation to illustrate the meaning. The definitions and pictures should be presented on the paper leaves and posted around the "vocabulary tree."

<b>Word list</b>	parchment	impressions	thickets	fragile
	compile	alders	whisked	discouraged
	whim	perched	altitude	peregrine
	falcon	frustration	riveted	

2. Have the students brainstorm as a class what images the words create. Have students suggest possible storylines that might arise from these words.
3. Divide students into small groups. Assign each student in the groups several new words. Pass out copies of the EcoGuardians' 2nd Chronicle and have the groups read it aloud. As the children hear one of the listed words in the story, the student responsible for the word should identify it and supply the meaning. Reassemble the class as a whole and listen to the EcoGuardians' 2nd Chronicle on the MP3 download.



## ACTIVITY

1. 2nd Chronicle Questions. Have students discuss the questions, record their answers and place them in their portfolios. Answers may be recorded in a variety of ways. Suggestions for presenting the answers to the questions include:

- mind map/web
- answer questions in the student shield, page S13
- draw cartoon/comic strip
- summarize the story and write it on a scroll
- interview format
- write a letter from Solana to the kids
- write a song or poem

## EXTENSIONS

1. Put up the Tree of Life posters. They contains necessary and relevant information for students as they complete their activities and tasks in subsequent chapters.



# ANSWER KEY



## QUESTIONS

### EcoGuardians' 2nd Chronicle: AM I WALKING GENTLY ON THE EARTH?

The purpose of the second chronicle is to establish a better awareness of the footprint concept by allowing students to identify their existing attitudes, beliefs and practices about their lifestyle.

The pieces of scroll that fit into a picture of the Tree of Life, and the discussion around them, introduce the students to what their Ecological (earthly) Footprint is and what their impact is on the earth.

This chronicle is also an introduction to the five tasks that are to come using the water, transportation, energy, food, and garbage components.

**Some suggested answers to the questions on page S19 provided below.**

1. The poster pieces form a picture of Solana, the Tree of Life. Each branch has an element of our Ecological Footprint - water, transportation, energy, food and garbage.
2. The message Am I walking gently on the Earth? means that as individuals we need to determine our own impact upon the environment. When we determine how deeply our actions affect the earth, we can then start to do something about it.
3. Suggestions of things that leave marks:
  - clothes
  - shoes
  - CDs
  - groceries
  - buildings
  - farms
  - towns
  - cities
  - roads
4. Answers will vary.