



Grade 7 Full-day Workshop: *Tropical Rainforest Ecosystems*

OVERVIEW & PROGRAM GOALS

This educational program has been designed with the intention of providing direct curriculum links to the Grade 7 Understanding Life Systems: Interactions within Ecosystems strand of **The Ontario Science and Technology Curriculum**. This exciting full-day workshop provides students and teachers the opportunity to explore the curriculum expectations outside the classroom. The main objectives of this program are for students to:

- Investigate the interactions of plants, animals, fungi, and micro-organisms in an ecosystem
- Demonstrate an understanding of the effects of human activities and technological innovations, as well as the effects of change that naturally occur, on the sustainability of ecosystems

SPECIFIC EXPECTATIONS

Relating Science and Technology to Society and the Environment:

- 1.1. Assess the impact of selected technologies on the environment

Developing Investigation and Communication Skills:

- 2.4. Use appropriate science and technology vocabulary, including sustainability, biotic, ecosystem, community, population, and producer, in oral and written communication

Understanding Basic Concepts:

- 3.1. Demonstrate an understanding of an ecosystems as a system of interactions between living organisms and their environment
- 3.2. Identify biotic and abiotic elements in an ecosystem, and describe the interactions between them
- 3.3. Describe the roles and interactions of producers, consumers, and decomposers within an ecosystem
- 3.4. Describe the transfer of energy in a food chain and explain the effects of the elimination of any part of the chain

- 3.5. Describe how matter is cycled within the environment and explain how it promotes sustainability
- 3.8. Describe ways in which human activities and technologies alter balances and interactions in the environment

TENTATIVE AGENDA

<p>10:00 am <i>Classroom</i></p>	<p>Arrival and Introduction to Topic</p> <ul style="list-style-type: none"> • Check-in with Guest Services • Meet Program Leader and Volunteer and travel to classroom • Introduce topic and vocabulary <ul style="list-style-type: none"> ○ Explore the structure of a rainforest and the trophic levels that exist within them ○ Investigate various types of species interactions that occur within rainforest ecosystems (e.g. predator-prey, symbiosis)
<p>10:30 am</p>	<p>Morning Snack <i>(optional)</i></p>
<p>10:40 am <i>On-site Tour</i></p>	<p>Rainforest Fundamentals Tour</p> <ul style="list-style-type: none"> • Explore a section of the Zoo (e.g. African Rainforest Pavilion) and discover a variety of species that live in rainforests and the interactions that exist between them
<p>12:00 pm</p>	<p>Lunch</p> <ul style="list-style-type: none"> • Opportunity for students to explore biofacts (e.g. skulls, furs, feathers, etc.)
<p>12:25 pm <i>Classroom</i></p>	<p>Introduction to the Importance of Rainforests and Case Study</p> <ul style="list-style-type: none"> • Discuss climate change, its impact, and actions we can take to reduce our ecological footprint
<p>12:40 pm <i>On-site Tour</i></p>	<p>Importance of Rainforests Tour</p> <ul style="list-style-type: none"> • Visit a different section of the Zoo (e.g. Indo-Malaya and Malayan Woods Pavilions) and learn how on-going conservation efforts are working to save endangered rainforest species
<p>1:50 pm</p>	<p>Wrap-up and Departure</p> <ul style="list-style-type: none"> • Recap the essential components of a rainforest, why they are important, and how students can make a difference

VOCABULARY

conservation	biosphere	biome	keystone species
abiotic	biotic	trophic level	producer
consumer	decomposer	symbiosis	mutualism
commensalism	parasitism		