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# ONTARIO SCIENCE CENTRE



## Exhibit Inquiry **Living Things and the Environment** Grade SK - 3

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## Exhibit Inquiry

# Living Things and the Environment

Have students look for the following exhibits related to living things during their visit to the Ontario Science Centre:

## Skills

Where to go:

The Living Earth (Level 6)  
*Cranium of a Colossus*

*Jaws*

*Teeth*



What it's about:

The jaws and teeth of carnivores (meat eaters), omnivores (meat and plant eaters), and herbivores (plant eaters) have different characteristics to meet their feeding needs. This exhibit shows the variations between animals with different diets.

What to say and do:

- Look at the timber wolf skull and describe the teeth—are they sharp or flat? (*sharp*) Do you think this animal would eat meat or plants? (*Meat*) Explain why you think so. (*Sharp teeth can tear meat.*) What are some other examples of carnivores? (*Mink*)
- Look at the chimpanzee skull and describe the teeth—are they sharp or flat? (*flat teeth at the back and sharp teeth at the front*). What kind of food do you think this omnivore would eat? (*Plants and meat*) Explain why you think so. (*Both sharp and flat teeth to eat animals and plants.*)
- What other activities, besides eating, might animals use their teeth and jaws for? (*Protection, gathering materials for shelter*)
- What do humans use their teeth for? Feel your teeth with your tongue or look at a friend's teeth. Which animal skull has teeth most similar to a human's? What helped you decide?

## Ocean Ecosystem

Where to go:

The Living Earth (Level 6)  
*Ocean Ecosystem*



What it's about:

The ocean ecosystem is a self-sufficient community of living plants and animals that interact with each other and their environment.

What to say and do:

- Identify the living and non-living components in the ecosystem. (*Living: fish, seaweed; non-living: rocks, water*)
- Choose a living thing in the ecosystem and describe the adaptations that enable it to survive in the ecosystem.
- Choose an animal and watch it interact with its environment for one minute. What did you observe?
- What type of ecosystem do you live in? What characteristics of your ecosystem allow you to survive? (*air to breathe, water to drink, etc.*)

## Exhibit Inquiry

# Living Things and the Environment

Where to go:

The Living Earth (Level 6)  
*Rain Forest*



## Rain Forest

What it's about:

Plants and animals have adaptations that help them survive in their environment.

What to say and do:

Trek through the rain forest and look for the different plants and animals living in this ecosystem.

Discuss the following ideas:

- What is the rain forest environment like? (*Hot, humid, lots of plants*)
- What are some of the adaptations you can see in this environment? How would these adaptations help plants or animals to survive? (*see table below for hints and answers*)

Rain forest specimen	Adaptation	Purpose
Poison dart frogs	Bright colours	Warning to predators of poison
Kapok tree (found near exit)	Spikes on trunk	Prevent animals from climbing /eating tree
Cecropia tree (or any tree with large leaves)	Broad leaves	Absorb more sunlight
Pothos vine	Waxy leaves	Protects from too much water
Tropical almond (or any tall tree)	Very tall	Compete for sunlight in shady rain forest

## Exhibit Inquiry

# Living Things and the Environment

### Where to go:

The Living Earth (Level 6)  
*The Fin Whale* (Look up!)  
*Sei Whale Baleen*  
*Sperm Whale Tooth*  
*Look Up! (Whale Skeleton)*



### Where to go:

KidSpark (Level 4)  
*Animal Blocks*



## Fin Whale Skeleton

### What it's about:

Fin whales are mammals like humans. The skeleton of the whale provides clues about the living animal's characteristics.

### What to say and do:

- Compare the whale's skeleton to your own skeleton. What similar features do you share? (*Rib cage, spine*) What differences are there?
- Compare the baleen to your teeth and think about how they are used. What is different? (*Instead of crushing food, the baleen filters any solid food from the ocean water*)
- Can you think of other characteristics of a whale that are similar to a human's? (*Warm-blooded, covered with skin, breathes air, milk-producing*)

## Animal Blocks

### What it's about:

Plants and animals have different adaptations which help them to survive in their environments. The animal blocks allow students to explore these characteristics by challenging them to create plants and animals designed to meet a specific need.

### What to say and do:

- Construct one or two plants or animals. Using the adaptations that you see, can you explain which type of environment each plant or animal lives? (*webbed feet good for swimming, fur for warmth*)
- Have students construct a plant or animal (or combination) to meet specific needs. For example, create an organism that would survive in hot, humid conditions, swims, and eats plants.
- Have students create a fantasy animal of their choice and explain its adaptations.

# Living Things and the Environment

## Resources

### Vocabulary

<b>Adaptation</b>	A feature that helps a living thing to survive in its environment.
<b>Camouflage</b>	Hiding by appearing to match or blend with the environment.
<b>Characteristics</b>	Typical, distinctive or peculiar qualities that help identify plants and animals.
<b>Ecosystem</b>	Any environment where living and non-living things interact with each other.
<b>Environment</b>	The air, water, minerals and other living things surrounding and affecting a given organism (plant or animal).
<b>Living thing</b>	Any thing that is able to eat (use nutrients), use water, breathe (respire), grow, reproduce, move, eliminate waste and die.
<b>Non-living thing</b>	Any thing that is not able to do one or more of the characteristics of a living thing.
<b>Rain forest</b>	A forest, usually of tall, densely growing evergreen trees in an area of high annual rainfall.
<b>Soil</b>	A combination of living (bacteria, fungi, etc.) and non-living matter (sand, clay, humus, etc.), forming the upper layer of earth in which plants live.
<b>Water cycle</b>	(or <i>hydrologic cycle</i> ) The natural sequence through which water passes into the atmosphere as water vapour, condenses, and then precipitates to Earth in liquid (rain) or solid (snow, hail) form, and then returns to the atmosphere through evaporation.

### Internet Links

Biological Diversity for Kids: Games, Glossary and Teacher Resources  
<http://kids.biodiv.org/>  
David Suzuki Foundation: Nature Challenge Teacher Guide  
<http://bit.ly/p9GCGs>  
Environmental Education for Kids  
<http://www.dnr.state.wi.us/org/caer/ce/EEK/index.htm>  
World Wildlife Fund  
<http://www.worldwildlife.org>

**PLEASE NOTE:** Programs and exhibits are subject to change without notice.