# Grade 6 Full-day Workshop:
## *Vertebrate Classification*

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## OVERVIEW & PROGRAM GOALS

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This educational program has been designed with the intention of providing direct curriculum links to the Grade 6 Understanding Life Systems: Biodiversity 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:

- Demonstrate an understanding of ways in which classification systems are used to understand the diversity of living things and the interrelationships among living things

- Investigate classification systems and some of the processes of life that are common to all animals (e.g. growth, reproduction, movement, response, and adaptations)

- Describe ways in which classification systems can be used in everyday life

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## SPECIFIC EXPECTATIONS

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### *Developing Investigation and Communication Skills:*
2.2. Investigate the organisms found in a specific habitat and classify them according to a classification system

2.3. Use scientific inquiry/research skills to compare the characteristics of organisms within the plant or animal kingdoms

2.4. Use appropriate science and technology vocabulary, including classification, biodiversity, natural community, interrelationships, vertebrate, invertebrate, stability, characteristics, and organism, in oral and written communication

### *Understanding Basic Concepts:*
3.1. Identify and describe the distinguishing characteristics of different groups of plants and animals, and use these characteristics to further classify various kinds or plants and animals

## TENTATIVE AGENDA

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| **10:00 am** *Classroom* | **Arrival, Introduction to the Topic, and Activity**<br>• Check-in with Guest Services<br>• Meet Program Leader and Volunteer and travel to classroom<br>• Introduce topic and vocabulary<br>    ○ Investigate how and why we classify species<br>    ○ Explore the characteristics used to classify animals into the five main classes of vertebrates<br>• Classification Activity |
| **10:30 am** | **Morning Snack** *(optional)* |
| **10:40 am** *On-site Tour* | **Vertebrate Classification Tour**<br>• Explore a section of the Zoo (e.g. Indo-Malaya Pavilion) and work together to classify animals into the five main classes of vertebrates |
| **12:00 pm** | **Lunch**<br>• Opportunity for students to explore biofacts (e.g. skulls, furs, feathers, etc.) |
| **12:25 pm** *Classroom* | **In-depth: Mammal Classification**<br>• Learn how to classify mammals based which reproductive strategy they use:<br>    ○ Placental<br>    ○ Marsupial<br>    ○ Monotreme (egg-laying) |
| **12:40 pm** *On-site Tour* | **Mammal Classification Tour**<br>• Visit a different section of the Zoo (e.g. Australasia Pavilion) and discover a variety of mammals that use different reproductive strategies |
| **1:50 pm** | **Wrap-up and Departure**<br>• Recap the characteristics used to classify vertebrates into the main classes (mammal, bird, reptile, amphibian, and fish) |

## VOCABULARY

| | | |
|---|---|---|
| classification | vertebrate | invertebrate |
| kingdom | phylum | sub-phylum |
| class | order | family |
| genus | species | endotherm |
| ecototherm | | |