



Up Close and Palaeo Topics

Division 3

Thank you for booking "Up Close and Palaeo" with ATCO Tyrrell Distance Learning!

This document contains a selection of topics for you to share with your class in an effort to focus the questioning your students will engage in during your program. Please select those topics that you feel fit your current curriculum needs best, then ask your students to formulate their questions based on those topics.

Note: Questions do not need to be forwarded to the Royal Tyrrell Museum. However, please ensure all students have a copy on hand at the time of the program.

1. Ancient Aquatic Environments: Creatures of the Swamps and Seas

Life on Earth began in the seas and took many unusual twists and turns. Think about what you would ask a Palaeontologist about the relationship between life and water.

- Curriculum connections:
 - Interactions and ecosystems (Gr. 7)
 - Freshwater and saltwater systems (Gr. 8)
 - Biological diversity (Gr. 9)

2. Who's for Lunch? The Prehistoric Food Chain

Every living organism needs energy. Some get it from the sun, others get energy from plants and some eat other organisms. Think about what you would ask a Palaeontologist about the food chain.

- Curriculum connections:
 - Plants for food and fibre (Gr. 7)
 - Biological diversity (Gr. 9)

3. Ancient Earth: Our Planet's Inhabitants Through the Ages

Only 2% of all the things that have ever lived are still alive today. Life on Earth has gone through vast changes and seen a huge cast of characters act out their stories in changing ecological systems. Think about what you would ask a Palaeontologist about the comings and goings of creatures of the past.

- Curriculum connections:
 - Planet earth (Gr. 7)
 - Biological diversity (Gr. 9)

4. Ancient Remains: The Process of Fossilization

Palaeontologists unravel the mysteries of the past by examining the traces and remains of living things. Think about what you would ask a Palaeontologist about what we can learn from fossils and the fossil record.

- Curriculum connections:
 - Cells and systems (Gr. 8)
 - Matter and chemical change (Gr. 9)

5. Sudden Death! Mass Extinctions through Earth's History

The fossil record indicates several times where something wiped out almost every living thing on Earth; sometimes more quickly, and sometimes more slowly. Think about what you would ask a Palaeontologist about ancient global disasters and their resulting extinctions.

- Curriculum connections:
 - Environmental chemistry (Gr. 9)
 - Planet earth (Gr. 7)

6. Blood and Guts: Shared Characteristics of Living Creatures

Given that all living things are interrelated, we know that we share many traits with other species, even extinct and seemingly strange creatures. Think about what you would ask a Palaeontologist about shared characteristics of organisms throughout the history of life on Earth.

- Curriculum connections:
 - Cells and systems (Gr. 8)
 - Plants for food and fibre (Gr. 7)