

DIVISION 4

Thank you for booking Up Close and Palaeo with Royal Tyrrell Museum Distance Learning!

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

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

TOPICS

1. Palaeontology: The Story of Life

Scientists estimate the Earth to be approximately 4.9 billion years old, and throughout that time life has progressed and changed considerably. Think about what you would ask a palaeontologist about the history of life, being a palaeontologist, and the various careers in this field of study.

Curriculum connections:

- Energy Flow in Global Systems (Science 10)
- The Changing Earth (Science 20)
- The Biosphere (Biology 20)
- Career and Life Choices (Career and Life Management)

2. Dinosaurs, the Birds, and the Bees: The Process of Evolution

The fossil record indicates that diverse species have sprung from common ancestors over long periods of time. Mutations and adaptations result in new creatures, while other species fail to adapt and become extinct. Think about what you would ask a palaeontologist about the process of evolution.

Curriculum connections:

- Living Systems Respond to Their Environment (Science 30)
- Change in Populations and Communities (Biology 30)

Continued

3. Fire and Ice! Climate Change through the Ages

The climate on Earth has always been changing; gradually shifting from temperate oceans and forests to glaciers and freezing temperatures, and back again. Think about what you would ask a palaeontologist about the Earth's climate, including its past, present, and future.

Curriculum connections:

- Energy Flow in Global Systems (Science 10)
- Changes in Living Systems (Science 20)
- The Changing Earth (Science 20)
- Energy and the Environment (Science 30)

4. Earth's History

The fossil record indicates several major events when 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:

- Energy Flow in Global Systems (Science 10)
- The Changing Earth (Science 20)
- Changes in Living Systems (Science 20)
- Energy and Matter Exchange in Ecosystems (Biology 20)
- The Biosphere (Biology 20)