

Dinosaurs!

with Jacqueline Guest

Teacher's Guide

This 60-minute PPT presentation engages Division One students with facts and fun about dinosaurs including speculation on what they looked like, who their cousins were and why they aren't roaming the halls of their school today. Students see and touch actual fossils including: a Hadrosaur egg, coprolites, fossil bones, and petrified wood!

Classroom Links and Concepts Covered:

1. History of Dinosaurs:

Extinction Students will be given an introduction to the age of the dinosaur complete with dates they existed and their extinction 165,000,000 million years ago.

Extinction and fossilisation are covered with an explanation of the meteorite strike in Gulf of Mexico and the subsequent fall-out on the eco-system.

Students learn how paleontologists arrive at conclusions.

Fossils as the only record remaining of dinosaurs is covered with an explanation of how paleontologists put clues together to decide on how a dinosaur looked.

2. Carnivores versus Herbivores:

Difference between carnivores and herbivores explained. Sea, earth and air dinosaurs discussed.

General rules of two vs. four footed dinosaurs explained to discover which category different dinosaurs belonged to

The morphology of dinosaurs is discussed: adaptations, (e.g.: diplodocus evolved a long neck for reaching food at top of trees), size of dinosaur brains versus size of their bodies, aquatic adaptations, etc.

3. Dinosaurs and Man:

Dinosaurs predating humans, not coexisting together, is explained to students.

Humans are not descended from dinosaurs, but evolved independently is explained. The fact that no humans existed during the age of reptiles means we have only the fossil record to reconstruct animals, social structure, evolution, etc.

4. Birds and Dinosaurs:

Birds evolving from pterodactyls to archaeopteryx to modern birds is shown with visuals. This leads to the colour of birds today. The connection with colour of birds and colour of dinosaurs is discussed with the result being that dinosaurs could very well have been all colours and not just green and brown.

Actual fossils are shown to students, including coprolite, bone, wood and a trilobite to represent the insects. Students also see and touch an actual Hadrosaur egg which is an exciting experience.

5. Students are given a colouring handout of a Triceratops with a reminder that dinosaurs being related to birds and all that is left are fossilised bones, with no visual record such as cave drawings due to the fact man did not exist when dinosaurs roamed the earth. This means that since birds come in all colours, they can make their dinosaur any colour they want, including rainbow colours, and still be 100% correct!

CLASSROOM EXERCISES

Students are encouraged to go to the library and take out books on dinosaurs to read with their families.

The Tyrrell Museum is a great field trip. Their website has valuable information.

CONSTRUCTION PROJECT

Dinosaur Story of Their OWN:

Students, as a class, construct a short story about dinosaurs. It can be fantastic, with elements right out of their imagination, including dinosaur buddies, exploding volcanoes, carnivores helping herbivores, etc.

Teacher types it out, then divides story into two halves and copies onto two sheets of 8 X 10 white paper. (Enough copies for each student)

Photocopied pictures of various dinosaurs, (small images), are coloured by students then cut out. These are available on line.

Students illustrate their story on a piece of 11 X 14 manila tag and the dinosaurs they coloured and cut out are pasted on picture in appropriate places.

Two pieces of 11 X 14 coloured construction paper are chosen by student and *laid side by side length wise.*

Students picture of dinosaur story is glued onto construction paper in such a way that there are 'wings' of coloured paper extending from each side of student picture. The two pieces of coloured construction paper are joined together in middle by student's picture.

(Student Picture connects two sheets of coloured construction paper with excess extending from each side like wing. It's on this wing that story will be pasted.)

Story is glued onto each extending 'wing' which is then folded over to create a 'cover' meeting in the middle of illustration.

Name of story is written on one side of cover and student's name on other.

(On outside of construction paper cover.)

See my website section on Dinosaurs for more details.