



Lesson: How Much Time has Passed Since Dinosaurs Were Around?

Lesson duration: 20 minutes

Grade level: K-8

Background:

- This activity can be done together as a class or in groups. The purpose of this activity is to show that the history of the Earth is very long. This activity only goes back to the time of the non-avian dinosaurs. Non-avian dinosaurs persisted for a relatively long period of time relative to human history. This lesson is important background for any further study of dinosaurs or geologic time.

Lesson objectives:

- Students will understand that the Earth's history spans a very long time.
- Students will learn that the Mesozoic Era began around 240 million years ago and ended around 65 million years ago.
- Students will create a model of Earth's history from the first dinosaurs to the present.

Materials needed:

- 500 sheet package of plain paper
- Pencils, markers or crayons

Lesson procedure:

1. Write “First dinosaurs” at the top of the first page of the stack of paper. This is the start of your “Pages of Time.” The stack of paper represents 100 million years. Each side of the page represents 10,000 years.
2. Ask students if they can name some non-avian dinosaurs. Explain to them that non-avian dinosaurs became extinct 65 million years ago (this means that they all died and did not come back).
3. Find a spot roughly 175 pages down the stack (about $\frac{1}{3}$). Write “non-avian dinosaurs extinct!” on this page.
4. Go to the bottom of the very last sheet of paper in the stack. This is where humans enter the picture. The last Ice Age ended about 25,000 years ago. Mark this $\frac{1}{4}$ of the way down the last page. Ask the students if they remember some of the animals that lived during the Ice Age (mammoths, sabre tooth tigers, etc.)
5. The pyramids of ancient Egypt were built about 5,000 years ago! Mark this about 14 mm from the bottom of the page and draw a line across the bottom.
6. Explain to students that most of human history happened below this line! Their life would be a tiny dot on the very bottom of the page. Have each student place their own dot on the bottom of the page, and put their initial by it.
7. If possible, move to a large space and have students help distribute the papers so that they can get a sense of the distance between human history and the Mesozoic Era. Point out that although non-avian dinosaurs went extinct 65 million years ago, the Mesozoic Era actually began 240 million years ago! Ask them to find the spot where they think this would be (they may have to go out into a field or very far down the hallway).