

# Lab The History of the Earth

## Introduction

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The Earth has changed dramatically and repeatedly over a history that spans nearly 5 billion years. Such immense spans of time are difficult for most of us to comprehend. They fall outside our range of human experience. We normally deal with much shorter time intervals, like the time of our next class or the number of days until the next test, or even the number of years until graduation!

It is important for students of geology to expand their sense of time. Extremely slow geologic processes, considered only in terms of human experience, have little meaning. To appreciate the magnitude of geologic time and the history of our incredible planet, you will be creating a timeline of important geologic events scaled to a size more tangible and familiar.

## Instructions

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1. Make a scaled timeline.

You will be making a timeline of Earth's history on a long strip of adding machine tape. The timeline should be done to scale. A scaled representation requires that 10 cm on your timeline represent the same amount of time anywhere along the timeline and each amount of time, say 5 million years, be represented by the same distance throughout the timeline. To do this you will:

- a) Measure out a strip of adding machine tape 4.56 meters long. A meter stick will be provided in lab.
- b) Select one end of the tape to represent the Present. Beginning at that end, mark off each billion years (1 billion, 2 billion, etc.)
- c) Starting with the oldest event (Event #1), mark off all of the important events in Earth's history shown in Figure 2.2. In each case you should write the date and event directly on the timeline.

2. Turn your timeline into your instructor on the date due.

