

## Geologic Time When Was Coal Formed? - Sec.

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**Title:** Geologic Time - When Was Coal Formed?

**Level:** Middle/Secondary

**Day/Time:** One to two days, one day for research, one day to construct time line.

**KERA Goals:** 2.4, 2.6, 2.9, 5.3, 6.16

#### **Objective:**

The student shall construct a time line of geologic periods and label the major happenings in each. The student should pay attention to the climate and conditions during the coal forming periods.

#### **Materials:**

Adding machine tape 5 meters long

Metric ruler

Tape

#### **Background Information:**

The students should have a general knowledge of epochs, periods and eras. They should make a chart similar to the one provided. Research can be done ahead of time by dividing the class into groups and give each group a period to research. This information can be added to the chart. Students should work in groups of two to construct the time lines. Be sure to have a large area (a long hallway is good) in which to work.

#### **Activity:**

1. Measure and cut off a strip of adding machine tape that is 5 meters long. One meter = one billion, one centimeter = ten million, and one millimeter = one million.

2. Tape adding machine tape to a flat surface where you can work easily.

3. Draw a line near the end of the tape. This will be the beginning of the earth. Measure 4 meters from this mark and draw a line. Label it "End of Precambrian Time." Starting at this line, mark the distance that will represent the end of the Paleozoic Era. Label it "End of Paleozoic Era." Go back and divide the part of the tape representing the Paleozoic into correct lengths representing each period of this era. Label each with the correct name. Do the same with each era and period. Go back and label the main events in each era.

Era	Period	Length in years	Length on tape	Major Events
Precambrian				

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Total Length		4 billion		
Paleozoic	Cambrian	70 million		
	Ordovician	70 million		
	Silurian	35 million		
	Devonian	50 million		
	Mississippian	25 million		
	Pennsylvanian	40 million		
	Permian	55 million		
Total Length		354 million		
Mesozoic	Triassic	35 million		
	Jurassic	54 million		
	Cretaceous	71 million		
Total Length		160 million		
Cenozoic	Tertiary	63 million		
	Quaternary	=====		

Activity developed by:  
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