

QUICK LAB GUIDED *Inquiry*

How Do We Know What Happened When?

When you think of it, every person's life story is a history of minor and major events. Some events, like the day you found a \$5 dollar bill, are trivial and will soon be forgotten. Others, such as the family's trip to the mountains, are memories that will forever remain. In this lab, you will use your personal life history to create a timeline that highlights major events in your life.

PROCEDURE

- 1 Put your name on the blank line in the top of the first column in the table below. In the Events column, enter 15–20 events that have occurred in your life. Don't do a lot of thinking, just include things that immediately come to mind.
- 2 In the Date column, enter the date or dates when these events happened.

SIGNIFICANT LIFE EVENTS

Events in the life of _____	Date when it happened	Events in the life of _____	Date when it happened

- 3 Compare your list with your lab partner's list. Discuss the similarities and differences. Did you overlook any significant events?
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- 4 Write each event on a separate **index card**. Arrange the index cards in order from oldest to most recent and use **tape** to attach them to the **string**. You have created a timeline.

OBJECTIVES

- Create a timeline highlighting major life events.
- Describe how fossils can be used to construct geologic timelines.

MATERIALS

For each student

- index cards
- string
- tape

Quick Lab continued

- 5 Are there any events in your personal timeline that are difficult to arrange in the order in which they happened? If yes, what are they, and why isn't it easy for them to be arranged that way?

- 6 Are there any events in your personal timeline that are simple to arrange in the proper order? If yes, what are they, and why is it easy for them to be sequenced?

- 7 What is the general difference between the events you identified in Questions 5 and 6?

- 8 Is there anything about certain events that makes them better than others at telling your life story? If so, what makes these events special?





- 9 Paleontologists are scientists who use fossil evidence to create a "story" about the history of life on Earth. Some fossils are found in many different rock layers. Other fossils occur only in certain rock layers. These fossils are called "index fossils." What makes index fossils so important to paleontologists?

- 10 How are index fossils like the special events in your own life history? What are the characteristics of special "index events" that can be used to describe a person's life?

Name: _____ Date: _____ Per: _____

Index Fossils

Keyed to the relative time scale are examples of index fossils, the forms of life which existed during limited periods of geologic time and thus are used as guides to the age of the rocks in which they are preserved.

CENOZOIC ERA (Age of Recent Life)	Quaternary Period	<i>Pecten gibbus</i>		<i>Neptunea tabulata</i>	
	Tertiary Period		<i>Calyptraphorus velatus</i>		<i>Venericardia planicosta</i>
MESOZOIC ERA (Age of Medieval Life)	Cretaceous Period	<i>Scaphites hippocrepis</i>		<i>Inoceramus labiatus</i>	
	Jurassic Period		<i>Perisphinctes tiziani</i>	<i>Nerinea trinodosa</i>	
	Triassic Period	<i>Trophites subbullatus</i>		<i>Monotis subcircularis</i>	
PALEOZOIC ERA (Age of Ancient Life)	Permian Period		<i>Leptodus americanus</i>	<i>Parafusulina bosei</i>	
	Pennsylvanian Period	<i>Dictyoclostus americanus</i>		<i>Lophophyllidium proliferum</i>	
	Mississippian Period		<i>Cactocrinus multibrachiatus</i>	<i>Prolecanites gurleyi</i>	
	Devonian Period	<i>Mucrospirifer mucronatus</i>		<i>Palmatolepus unicornis</i>	
	Silurian Period		<i>Cystiphyllum niagarensis</i>	<i>Hexamoceras hertzeri</i>	
	Ordovician Period	<i>Bathyrurus extans</i>		<i>Tetragraptus fructicosus</i>	
	Cambrian Period		<i>Paradoxides pinus</i>	<i>Billingsella corrugata</i>	
	PRECAMBRIAN				