

CHURCHILL FILMS PRESENTS A DIMENSION FILM

# TIME, LINES, AND EVENTS REVISED

A FILM FOR MATH, SCIENCE AND SOCIAL STUDIES



This film introduces basic time  
*CONCEPTS* and *SKILLS*:

1. Time as a measuring system, based on the sequence and duration of events;
2. How to make timelines;
3. The vastness of historical and geological time, and the surprising briefness of the periods we usually emphasize the most.

# 5 BILLION YEARS

## SYNOPSIS:

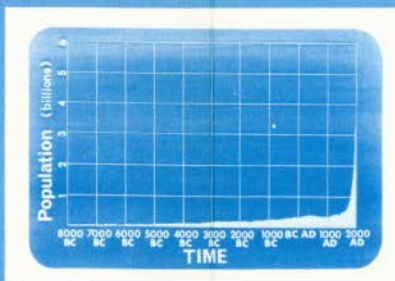
After explaining the use and making of timelines, the film brings on an imaginary Time Machine Camera which can travel down a vertical timeline into the deep past. On command, the camera shows how the earth looked at any particular time. It searches for the beginnings of life, the presence of dinosaurs, for cave people, and the pyramids. The film dramatizes the relative briefness of the history of the United States, and of human beings, and concludes by showing how all the events of history give us our sense of time itself.

## BEFORE SCREENING THE FILM:

1. Demonstrate timelines for:
  - A. One year, marking the major holidays, or;
  - B. One student's life, marking some important events.
2. Ask your students to make timelines, guessing as best they can the relative distances:
  - A. If you have a timeline for the history of the earth (estimated at 5 billion years) where would you place the first modern humans; the first mammals; the first dinosaurs; the first life?
  - B. If you have a timeline for the history of modern humans (estimated at 50,000 years) where would you place George Washington's birth; the first voyage of Columbus; the building of the Pyramids?

## AFTER SCREENING THE FILM:

1. Look again at the timelines made before screening. How accurate were they? What do they show about our perspective on past events?
2. Practice making timelines in your current subject.  
*Two stimulating formats:*
  - A. Make a timeline on a roll of adding machine tape —
  - B. Stretch out yarn and attach clothes-pins with tags to mark events.
3. Practice other forms of timelines:
  - A. Make a population graph for the history of humankind.
  - B. Make parallel timelines for American and French events between 1750 and 1800.



4. Consider the importance of *sequence*:
  - A. In *Science*: Which is older, the earth or the moon? Which came first — pine trees or oak trees, sharks or whales?
  - B. In *History*: Listing the sequence of events is often critical in understanding the start of wars — the Spanish-American, World War I, the Arab-Israeli wars of 1967 and 1973, etc.
5. Consider the importance of *duration*:
  - A. In *Science*: Compare the duration on earth of various forms of life — what can we learn?

- B. In *History*: Compare the age of the major republics of the world. Which is the oldest? Compare the duration of the period from the first settlement in North America (St. Augustine) to the Declaration of Independence with the period since.

## RESEARCH PROJECTS:

1. The film contains a number of estimated times, such as the length of the Age of Dinosaurs, the age of the earth, etc. It also describes the surface of the earth and the culture of early man.  
How are these estimates made? How do we know what ancient times were like? How reliable is this information?
2. The *Scientific American*, November, 1964, contained an article on "Psychological Time" reporting "how much various circumstances affect...the sense of the passage of time." Summarize this article for the class.
3. If the timing of certain events leading to the Spanish-American War or World War I had been changed, either of these conflicts might have been avoided. Prepare a report on either case.
4. As we study distant objects in space, new problems in establishing both sequence and duration arise. A student can study some introductory books on relativity and report on space-time.

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E1. JH/15 minutes/animation

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