



## Curriculum Guide for TimeScale Card Set

**Materials:** Timeline Scroll  
TimeScale Card Set

**Prerequisite(s):** Students should have a good understanding of the concept of time and time notation. Ideally, students should be familiar with the BC/AD timeline presentation.

**\*\*Please note:** *The TimeScale Curriculum Card Set was designed to (1) guide students in the study of historical events with the use of timelines and (2) allow teachers/students to scale on the TimeLine Scroll both Clocca Concept's Historical Cards and Teacher created materials. The cards are structured in a **place value** format and color coded accordingly. Enjoy!*

*This card set includes:*

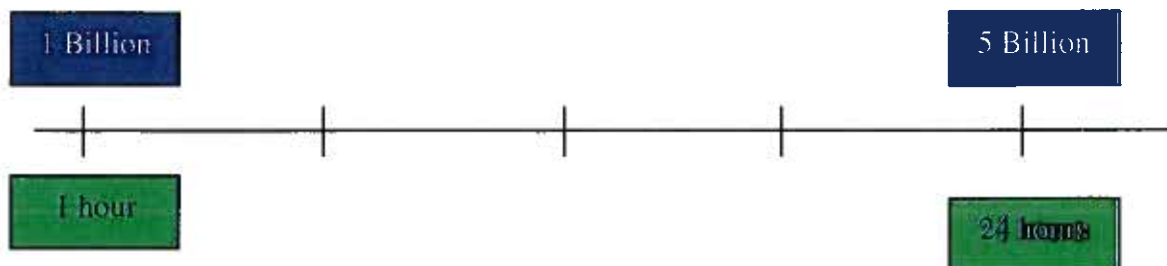
- **Scale Cards**
- **Unit Cards**
- **Tens & Hundreds**
- **Decades**
- **Centuries**
- **Thousands**
- **Ten Thousands**
- **Hundred Thousands**
- **Millions**
- **Ten Millions**
- **Hundred Millions**
- **Billions**

A Time Line is used to show (historical) events in a chronological order over a period of time.

Depending on the subject of study, timelines can use a wide array of different scales (minutes, hours, days, years, decades, eons, ages, etc...).

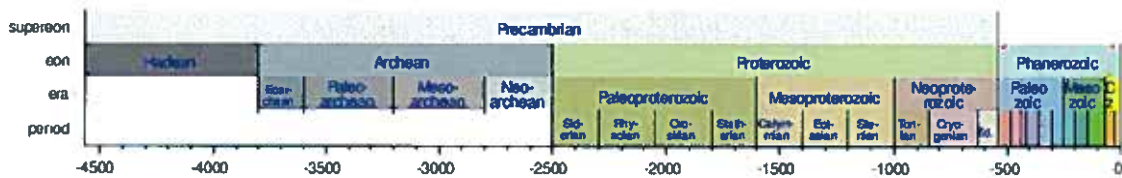
A **time scale** specifies divisions of time. Most timelines use a linear scale, where a unit of distance is equal to a set amount of time.

The Time Line of Life can span millions, even billions, of years, while the life of a household fly might only span 48 hours.





Scientists & Historians, have even created scales to describe the timing and relationships between events and the history of Earth. The largest defined unit of time is the **supereon**. Supereons are composed of **eons**. Eons are divided into **eras**, which are in turn divided into **periods**, **epochs** and **ages**. While these unit of times have been given specific names (ex. Middle Age), they are still based on numbers.

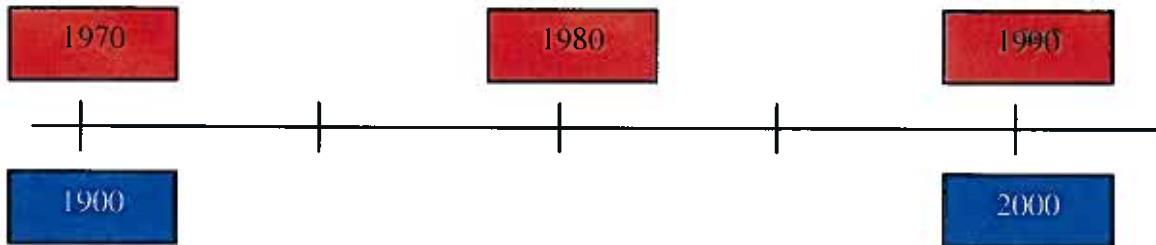


Evidence from radiometric dating indicates that the Earth is about 4.570 billion years old. The geological or *deep time* of Earth's past has been organized into various units according to events which took place in each period. Different spans of time on the time scale are usually delimited by major geological or paleontological events, such as mass extinctions. For example, the boundary between the Cretaceous period and the Paleogene period is defined by the Cretaceous–Tertiary extinction event, which marked the demise of the dinosaurs and of many marine species. Older periods which predate the reliable fossil record are defined by absolute age.

Each era on the scale is separated from the next by a major event or change.

While this provides an excellent tool for geologist and other scientists to talk about a specific duration of time, Clocca's TimeScale Curriculum has been based on time as a number.

The **TimeScale Curriculum** can cover small units of time (days, weeks, months, years) and large units of time (billions of years ago). The **TimeLine Scroll** is 12 ½ feet long with 52 tick marks (alternating small and large). These tick marks assist with the scale of all the historical card sets and allow students to approximate distances according to scale depending on the (1) subject of study, (2) duration of events covered, and (3) number of events to be placed on TimeLine. For example, the U.S. Presidents are scaled by decades, whereby each decade card is placed at each large tick mark. However, the U.S. Historical Event cards are scaled by centuries, whereby each century card is placed at every 5<sup>th</sup> large tick mark.



Your scale has to allow for the appropriate space to lay out your timeline events. However, don't forget that you have both **horizontal** and **vertical** space to work with!

The cards were designed in a place value format. For example, The **Hundred Thousand Cards** can be placed over the **Hundred Million Cards** to show the number:

**100,100**

Each card set has also been color coded to follow the Montessori place value system of Green/Blue/Red. Scale Cards which specify the category of time (A.D/B.C, Years Ago, Months, and Day) are coded yellow.

Linear timescales require the unit of distance to be equal to a set amount of time and consistent on the TimeLine. Thus, if 10 years equals 2 large tick marks, then for every 2<sup>nd</sup> tick mark, 10 years would be added or subtracted from the unit.

**\*\*Please note: In order to place the century cards- you will also need to utilize the Tens/Hundred cards.**

*If you have purchased the North American LifeLine card set- this is an excellent introduction on how to use different scales. However, you are certainly free to use any examples or materials you have in your classroom. The American Honey bee's lifeline (timeline) versus the American Redwood Tree is a great example. Have students try different scales to see which one works best with the example materials.*



*In order to decide which scale is the most appropriate scale to use, there are several questions you will want to ask yourself:*

- 1. What is the nature of the historical events that I am outlining?*
- 2. What is the time span of events that needs to be covered in the time scale?*

**\*\*Presentation #1 can be used either to familiarize students with the Scale cards and/or demonstrate the BC/AD Timeline lesson.**

### **Presentation 1: Scale**

1. Unroll the Time Line
2. Show the students the TimeScale cards. Gather the Unit Cards (1-52) and have the students place the cards 1-52 (in chronological order) at each tick mark. After completing all 52 cards, discuss with students what these units could represent, i.e., days, weeks, months, years.
3. Show the student the yellow Scale cards. Look through all the scale cards, i.e., crown card (to represent 0), A.D, B.C, B.C.E, C.E., Years Ago, Years, Days, Weeks, Months, etc... Explain how each Scale Card determines what the numbers will represent on the Time Line.
4. Explain to students that after Unit Cards, one could also use the other cards (Tens/Hundreds, Decades, Centuries, Thousands, etc...) depending on what historical events were being displayed on the TimeLine. You might want to mention some examples of historical timelines and ask them their thoughts on which number scale would be appropriate for that timeline.
5. Use an example to layout on this TimeLine. (Ex. Personal Timeline, historical card set).
6. After completing the TimeLine, gather cards, return to box, roll up the scroll, and return to the shelf.

### **Presentation Option: AD/BC Timeline**

1. Follow instructions listed above.
2. Use the Tens/Hundreds & Century cards to demonstrate the AD/BC Timeline lesson.
3. After completing the TimeLine, gather cards, return to box, roll up the scroll, and return to the shelf.



**Extensions:**

1. Have students create a personal timeline and scale it on the TimeLine.
2. Have students chose a topic for research and create a timeline with appropriate scale on the TimeLine
3. Have students scale historical card sets, such as US Presidents, Artists, History of Writing or Numbers, or North American TimeLines (or even your own materials.)