



MAKING A TIMELINE OF GEOLOGICAL ERAS

Build a hands-on timeline to see how Earth's history fits together!



GOAL

To create a timeline of Earth's geological eras in order from oldest to most recent.



MATERIALS

- 1 long piece of rope (at least 10–12 feet)
- 5–6 small markers or objects (different colors work best)
- 6 labels or index cards
- Tape
- Scissors (if needed)
- Reference timeline below
- Measuring tape or ruler (optional)



BACKGROUND

Geological eras are huge blocks of time in Earth's history. Scientists divide Earth's 4.6 billion-year history into eras based on major life forms, climate changes, and important events. We will use a rope to show how long each era lasted compared to the others.

THE GEOLOGICAL ERAS (FROM OLDEST TO MOST RECENT)

ERA	APPROXIMATE TIME RANGE (MILLION YEARS AGO)
 Hadean	4600 – 4000
 Archean	4000 – 2500
 Proterozoic	2500 – 541
 Paleozoic	541 – 252
 Mesozoic	252 – 66
 Cenozoic	66 – Present



PROCEDURE

1. Lay out your rope in a straight line on the floor or a long table.
2. Using the timeline above, decide how much of the rope each era should take.
 - The older eras should take up more rope since they lasted longer.
3. Place a marker at the beginning of the rope for the start of the Hadean Era (about 4.6 billion years ago).
4. Measure out and place markers for the end of each era using the correct proportion of time.
 - You can eyeball it or use a measuring tape for more accuracy.
5. Label each marker with the name of the era.
6. Stand back and look at your timeline. Notice how much longer the early eras lasted!
7. (Optional) Add small drawings or notes about important life forms or events from each era.



TIPS

- You don't need exact measurements—this is a model!
- The goal is to see the BIG differences in time.



THINK & ANSWER

1. Which era lasted the longest? _____
2. Which era is the most recent? _____
3. How does this timeline help you understand Earth's history better? _____

DRAW YOUR TIMELINE

(Sketch your rope timeline below.)

