

**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_**

**Geologic Time Activity Worksheet**

**Instructions**

Go to <http://pubs.usgs.gov/gip/fossils/numeric.html> and use the geologic time scale to find the missing dates and fill in the blanks under the Approximate Age category. Next, calculate the corresponding distance on a football field that each event represents and fill in the blanks under the Distance category. For this activity, 1 yard = 50 million years. Mark the events on the Geologic Time Football Field. One end zone is labeled "TODAY" and the other is "BEFORE EARTH." As you place your events on the football field, pay close attention to which end is which. Place events at the nearest yard.

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| **Geologic Event** | **Approximate Age** | **Distance (yds)** |
| Rocky Mountains are formed | 80 million years |  |
| First known fish | 510 million years |  |
| Paleozoic Era begins |  |  |
| Earliest humans | 2 million years |  |
| Formation of the Earth | 4.6 billion years |  |
| First known mammal | 200 million years |  |
| Proterozoic Eon begins |  |  |
| First single-celled organism | 1.2 billion years |  |
| Columbus discovers America | 506 years |  |
| Oldest rock | 3.8 billion years |  |
| Extinction of the dinosaurs | 65 million years |  |
| First known plant | 498 million years |  |
| First known reptile | 325 million years |  |
| First multi-celled organism | 700 million years |  |
| First known amphibian | 375 million years |  |
| First known bird | 160 million years |  |

**Investigation**

1. What event is exactly in the middle of the football field?  
  
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2. Find where your birth date would be on the football field. Why is it almost impossible to show a human's life on this scale? Would it be easier if we changed the number of years that 1 yard represents?  
  
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3. In what periods did fish, mammals, reptiles, amphibians, and plants appear on Earth?  
  
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4. Look at the geologic time scale. Why do you think the Phanerozoic Eon has many more divisions and dates associated with it than the Archean Eon?  
  
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5. How many years does the first 10 yards represent? What events are within the first 10 yards of the football field from the TODAY end zone?  
  
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