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## The Meter Redefined

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The extinction of trilobites remains a mystery. Possibly they could no longer compete with newly-evolving forms of life and/or they could not adapt to changing environmental conditions. Nevertheless, proof of their existence remains solidified in Paleozoic rocks. In Iowa, as in the rest of the world, the trail of the trilobite begins and ends in Paleozoic sediments.

### Selected Bibliography

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### The Meter Redefined

The current definition of the meter, based on the measurement of the wavelength of a line in the  $^{86}\text{Kr}$  spectrum, is  $10^4$  times less accurate than the definition of time by the cesium "atomic clock." Scientists at the U.S. National Bureau of Standards, in collaboration with those at the National Research Council, have succeeded in linking a transition of  $\text{I}^2$  in the visible region with the cesium primary standard in the microwave region. This is the first time such a link has been established. As a result, the next General Conference of Weights and Measures will be asked to approve the redefinition of the meter as the distance travelled  $\frac{1}{299,792,458}$  by plane electromagnetic waves in 299,792,458 parts of a second.

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### Vulcanism

If you want slides of the Mount St. Helens volcanic activity, a set of 10 is available for \$12.50 from Volcano, Box 180, Vancouver, Washington 98666. A newspaper account of the day-by-day events is also available for \$1.00.