This perspective on time is a little breathtaking. Our watches ticking off seconds, minutes, hours, and days seem like nothing in the vast sweep of cosmic time. It causes one to wonder what time is like for God. In reality, time itself is one of God's created relationships of the physical world.

Until the early part of this century people thought they lived in a three dimensional world. Length, width, and height were the familiar dimensions that could be measured. Then Einstein discovered that time is relative to motion, and the fourth dimension of time was added to man's knowledge of his world. It is interesting to imagine what time might be like for a being who can transcend time and space. According to Einstein's theory of relativity, the faster one travels, the slower the clock runs. If one could travel at the speed of light, there would be no movement of time as we understand the concept. In effect, there would be no past or future. Everything would take place *right now*.

We are beings that live in a particular space called the planet Earth. We measure time according to the orientation and motion of our planet in relationship to the Sun. One year from now the Sun will appear in our sky in the same position it is in today. This regularity of planetary motion forms the basis of our calendar year. It is how time is measured in the normal course of events.

SCIENTIFIC DATING METHODS

To measure the age of the Universe, the Earth, and to date the events that took place over geologic time, scientists use a variety of methods. The methods based on the inorganic "radioactive clock," radiocarbon dating, and racemization (amino acid) dating are described in detail in the Appendix.

Absolute dates for rocks formed from a molten state (igneous rocks) are obtained primarily through radioactive dating techniques. Radioactive elements are unstable. That is, their atomic nuclei spontaneously break up or disintegrate to form a more stable element from a parent radioactive or unstable element. The transformation from uranium to lead is the most familiar example. Samples of radioactive elements decay at known rates into stable elements. Thus, if one can calculate the size of the original material and know the amount of the residual material, if the sample is uncontaminated and if the assumption is made that the rate of decay has been the same over the lifetime of the sample, it is possible to determine the date at