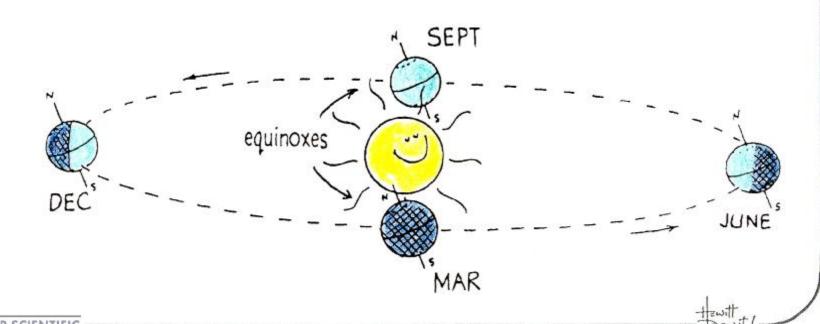
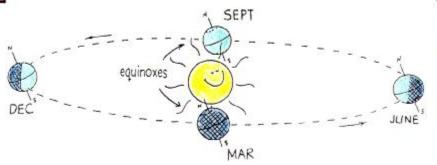
Next-Time Question

The autumn and spring equinoxes are the turning points of Earth's seasons, when all parts of the world should have equal-length days and nights. But as it so happens, even at this special time, daylight time is slightly longer than night. Why?



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CONCEPTUAL Physics

If we lived on a planet without an atmosphere, then the times of day and night would be equal during an equinox. But because of atmospheric refraction, the Sun rises a few minutes before we would see it if there were no atmosphere. At sunset refraction gives us another few minutes of extra light.

Additional time is about 9 minutes, depending on air composition, pressure, and temperature.

position of Sun

Actual

position

