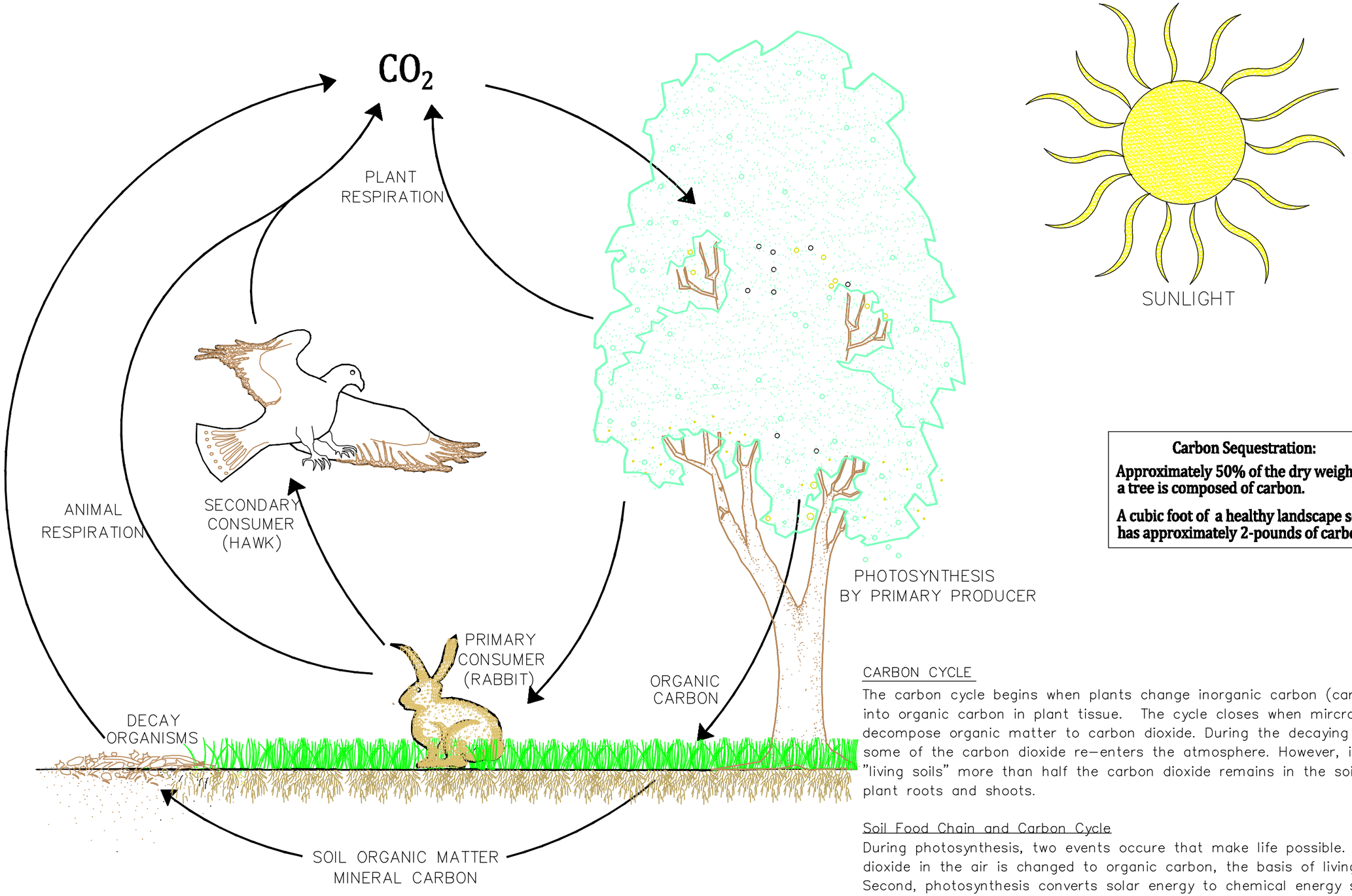

Carbon Sequestration:

Approximately 50% of the dry weight of a tree is composed of carbon.

A cubic foot of a healthy landscape soil has approximately 2-pounds of carbon.

CARBON CYCLE

Soil Science & Management, 5th Edition
Edward J. Plaster

CARBON CYCLE

The carbon cycle begins when plants change inorganic carbon (carbon dioxide) into organic carbon in plant tissue. The cycle closes when mircroorganisms decompose organic matter to carbon dioxide. During the decaying process some of the carbon dioxide re–enters the atmosphere. However, in healthy "living soils" more than half the carbon dioxide remains in the soil and in plant roots and shoots.

Soil Food Chain and Carbon Cycle

During photosynthesis, two events occure that make life possible. First carbon dioxide in the air is changed to organic carbon, the basis of living tissue. Second, photosynthesis converts solar energy to chemical energy stored in surgars and other energy–rich compounds.

Plants that manufacture their own food and form the base of the food chain are primary producers. Animals that eat the plants are primary consumers. Predators that eat primary consumers are secondary consumers and so on up the chain. Carbon and energy move up the food chain from plants to animals.