

### Botany terminology

**Anther**—The pollen sac on a male flower.

**Apex**—The tip of a shoot or root.

**Apical dominance**—The tendency of an apical bud to produce hormones that suppress growth of buds below it on the stem.

**Axil**—The location where a leaf joins a stem.

**Cambium**—A layer of growing tissue that separates the xylem and phloem and continuously produces new xylem and phloem cells.

**Chlorophyll**—The green pigment in leaves that is responsible for trapping light energy from the sun.

**Chloroplast**—A specialized component of certain cells; contains chlorophyll and is responsible for photosynthesis.

**Cortex**—Cells that make up the primary tissue of the root and stem.

**Cotyledon**—The first leaf that appears on a seedling. Also called a seed leaf.

**Cuticle**—A relatively impermeable surface layer on the epidermis of leaves and fruits.

**Dicot**—Having two seed leaves.

**Epidermis**—The outermost layer of plant cells.

**Guard cell**—Epidermal cells that open and close to let water, oxygen, and carbon dioxide pass through the stomata.

**Internode**—The space between nodes on a stem.

**Meristem**—Specialized groups of cells that are a plant's growing points.

**Mesophyll**—A leaf's inner tissue, located between the upper and lower epidermis; contains the chloroplasts and other specialized cellular parts (organelles).

**Monocot**—Having one seed leaf.

**Node**—An area on a stem where a leaf, stem, or flower bud is located.

**Ovary**—The part of a female flower where eggs are located.

**Petiole**—The stalk that attaches a leaf to a stem.

**Phloem**—Photosynthate-conducting tissue.

**Photosynthate**—A food product (sugar or starch) created through photosynthesis.

**Photosynthesis**—The process in green plants of converting carbon dioxide and water into food (sugars and starches) using energy from sunlight.

**Pistil**—The female flower part; consists of a stigma, style, and ovary.

**Respiration**—The process of converting sugars and starches into energy.

**Stamen**—The male flower part; consists of an anther and a supporting filament.

**Stigma**—The top of a female flower part; collects pollen.

**Stoma (pl. stomates, stomata)**—Tiny openings in the epidermis that allow water, oxygen, and carbon dioxide to pass into and out of a plant.

**Style**—The part of the female flower that connects the stigma to the ovary. Pollen travels down the style to reach the ovary, where fertilization occurs.

**Transpiration**—The process of losing water (in the form of vapor) through stomata.

**Turgor**—Cellular water pressure; responsible for keeping cells firm.

**Vascular tissue**—Water-, nutrient-, and photosynthate-conducting tissue (xylem and phloem).

**Xylem**—Water- and nutrient-conducting tissue.