



**Across**

- 4 induces and maintains seed dormancy and inhibits shoot growth. Also closes stomata
- 7 a model that explains how organic molecules move from source to sink through phloem in a flowering plant
- 8 the process in which water evaporates from the inside of a leaf to the outside through the stomata
- 10 is a growth response to mechanical stimuli, such as contact with an object, another organism, or even wind.
- 11 has many functions and which makes up most of the inside of a plant
- 14 which transports water, minerals, and other substances throughout the plant and provides support; it includes xylem and phloem
- 15 is a growth response to gravity. Roots generally show a positive gravitropism. The downward growth of roots into soil helps to anchor the plant and brings roots in contact with water and minerals.
- 17 where new cells are produced
- 18 forms the outer covering of the plant; it includes epidermis and periderm
- 20 the transport of sucrose and other organic molecules through the phloem of a plant
- 24 vascular tissue that transports organic nutrients, often from the leaves to the roots, but also from roots and mature leaves to new leaves
- 25 a waxy layer on the epidermis that is secreted by epidermal cells
- 26 vascular tissue that transports water and minerals from the roots to the leaves

**Down**

- 1 The main function of all \_\_\_\_\_ is to convert the light energy from the Sun into the chemical energy of food through the process of photosynthesis.
- 2 a specialized epidermal cell; functioning in pairs, they regulate the opening of stomata
- 3 the fine, hair-like structures that cover the surface of the root of a plant; they increase the surface area available for gas exchange and the absorption of water and nutrients
- 5 a model of water transport that explains how water is moved from the roots to the leaves of a plant
- 6 a small opening, usually in the leaf, that allows gas exchange to occur
- 9 a plant's growth response to light caused by an unequal distribution of auxin.
- 12 the mechanism by which positive pressure in the roots moves water upward in a plant
- 13 The main function of a \_\_\_\_\_ is to provide support for the plant's leaves and flowers, a plant's reproductive structures.
- 16 Stimulate cell elongation and seed germination They promote the growth of taller, stronger plants and plants that flower early. They are used in commercial crops all over the world to increase fruit size and to increase cluster size in grapes.
- 19 Involved in flower and seed production, and the ripening of fruits. It stimulates a variety of enzymes which convert starch and acids of the unripe fruit to sugars, and softens the fruit by breaking down pectin's in the cell walls.
- 21 Stimulate cell division and elongation in stems and roots. Also regulates cell expansion in response to light and gravity.
- 22 Stimulate cell division and prevent aging in leaves
- 23 a plant's growth response to external stimulation coming from one direction in the environment