B.10B Interactions with Plants

Picture Vocabulary
stimuli

Anything that prompts a response or action
response

An action that is prompted by a stimulus
xylem

Plant tissue that transports water absorbed in roots throughout the plant
phloem

Plant tissue that transports glucose produced by the leaves throughout the plant
guard cells

Cells surrounding the stoma that regulate the size of the stoma
stoma

A tiny pore in the epidermis of a leaf used for gas exchange
pollination

The transfer of pollen from the anther to the stigma within a flower
pollen

Small particles containing a plant’s sperm cells
sexual reproduction

Reproduction that involves the exchange of genetic material between two organisms
stamen

The male reproductive structure of a flowering plant; consists of the anther and the filament
pistil

The female reproductive structure of a flowering plant; consists of the stigma, style, and ovary

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filament

The slender stalk-like portion of the male reproductive structure of a flowering plant; supports the anther.
anther

The portion of the male reproductive structure of a flowering plant that contains pollen (the male gamete)
stigma

The sticky tip of the female reproductive structure of a flowering plant; it is sticky in order to capture pollen for the purpose of pollination.
The slender stalk-like portion of the female reproductive structure of a flowering plant; supports the stigma
The enlarged portion at the base of the reproductive structure of the flowering plant that contains ovules (the female gamete); after fertilization it will become the fruit of the plant.
flower

The reproductive organ in angiosperms that develop into fruit and seeds
The seed-producing reproductive organ in flowering plants that contains the ovule, stigma and style.
Leaves surrounding the reproductive structures of flowering plants, often specialized to attract pollinators.
sepal

Protective structure that surrounds a flower bud, and supports petals after a flower blooms
ovule

Structure within the ovary of a plant containing the female reproductive cells; develops into the seed after fertilization
The specialized part of a plant that grows down into the soil to anchor the plant and absorb nutrients
The specialized part of a plant that grows in the opposite direction of the roots and supports the flower, leaves, or fruit of the plant.
leaf (leaves)

The specialized part of a plant that is mainly used for gas exchange; comes in various forms and often the primary form of adaptation in plants
spore

Usually unicellular body formed as a result of either sexual or asexual reproduction; has the ability to give rise to a new organism and the advantage of being able to wait until ideal conditions arise.
cell wall

Outer layer of a plant cell used for protection and support
chloroplast

Organelle where sugars are produced during photosynthesis; found in autotrophic cells
vascular tissue

A set of ducts and vessels which allows water, minerals, and food to move throughout the plant
seed

The result of a fertilized plant ovule; can be cultivated to produce a new plant
taproot

A primary root that grows down with small lateral roots
tissue

A group of cells with a similar structure and function
angiosperm

A class of plants that produce flowers
gymnosperm

A class of plants that produce naked seeds found in cones instead of ovaries
monocot

A flowering plant whose seed has one cotyledon
dicot

A flowering plant whose seed has two cotyledons
auxins

A plant hormone that makes roots form and buds grow
germination

The process of sprouting and growing
gravitropism

A plant’s ability to move toward the earth (roots) or away from the earth (stems)
phototropism

A plant’s ability to move toward the sunlight
thigmotropism

A plant’s ability to move when it comes in contact with another object
haploid

A cell that contains a single set of chromosome; n
A cell that contains pairs of all of the homologous chromosomes; 2n
gametophyte

The haploid stage of a plant that produces gametes by mitosis.
sporophyte

The diploid stage of a plant that produces spores by meiosis
transpiration

The process of a plant absorbing water through the roots and then releasing water vapor through its stomata in the leaves.
Turgor pressure

The pressure inside a cell that is exerted against the cell wall by water.