



Tree Cards Answer Key

TREE PART	FUNCTION WITHIN TREE	FUNCTION WITHIN ECOSYSTEM
Leaf	Captures sunlight and carbon dioxide to produce food for the tree, using the process of photosynthesis	Provides shade and evaporates water; absorbs carbon dioxide and releases oxygen; provides food for animals and insects
Bark	Outer layer of the tree that protects it from weather, animals, insects, fire, and disease	Provides habitat and food for many insects; when decomposing, releases nutrients back into the soil; may be used for paper products and mulch
Trunk	Grows to bring leaves above competing trees so they are in contact with sunlight; supports branches	Stores carbon dioxide, reducing greenhouse gases; provides material for products such as paper and furniture
Root	Absorbs water and nutrients from the soil and anchors the tree in the ground to provide support	Holds soil in place so the tree does not wash away in rain and wind; takes up nutrients in the soil
Flower	Exchanges pollen with other trees to fertilize the next generation; enables the tree to produce seeds	Provides food in the form of nectar to bees, birds, and other pollinators
Seed and associated parts	Contains an embryo and nutrients to produce new offspring/trees	Often a source of food for wildlife and humans; may be used for medicinal purposes, dyes, or cosmetics
Phloem	Transports sugars (food) from the leaves down to the roots and branches; also called inner bark	Transfers sugars (food) the tree creates from sunlight, water, and carbon dioxide, making this energy available to the ecosystem (including humans!)
Xylem	Transports water and nutrients from the roots up the trunk to the leaves; also called sapwood	Absorbs water from the ecosystem and stores it for use in dry times; produces sap such as maple syrup
Branch	Spreads out leaves so they receive sunlight; where upward growth takes place and new buds are formed	Provides habitat for animals and insects; organic material for soil; and shelter from wind and rain
Cambium	Found between the phloem and xylem, a “growth layer” of cells that produces a new layer of xylem and phloem each year	Protects forests by enabling the tree to grow strong for protection from wind and storms; produces pectin, used in jellies, jams, and candies
Heartwood	Provides support for the tree; actually dead wood at the very center of the tree	Strong wood ideal for building materials; may eventually hollow out from the center of the tree and provide prime animal habitat