Trees can be identified by their leaves, bark, buds and even the wood *that is harvested from them. Trees are most commonly identified by their leaves. To get started with tree identification, take a look at the leaves pictured on this page. Use the number each leaf is labeled with to answer the questions.*

- *If the leaf is needle-like, write the number(s) here:_____*
  These trees are called CONIFERS, they usually have pinecones.
- *If the conifer has single needles that are directly attached to the twig, write the number(s) here: _____*
- *If the conifer has clusters of needles, write the number(s) here:*
  _____
- *If the leaf is flat and thin, write the number(s) here:_____*
  These trees are called BROADLEAF, they usually shed their leaves each year.
- *If the leaf is simple–one leaf on one stalk–write the number(s) here:_____*
- *If the leaf is compound–more than one leaf (called leaflets) on a single twig or stalk–write the number(s) here:_____*
- *If the leaf is simple and has no lobes–the edge is fairly even with no projections–write the number(s) here:_____*
- *If the leaf is simple and has lobes–the leaf edge has projections–write the number(s) here:_____*

Visit the Arbor Day Foundation's website for a great online tree ID guide.
https;//www.arborday.org/trees/whattree/

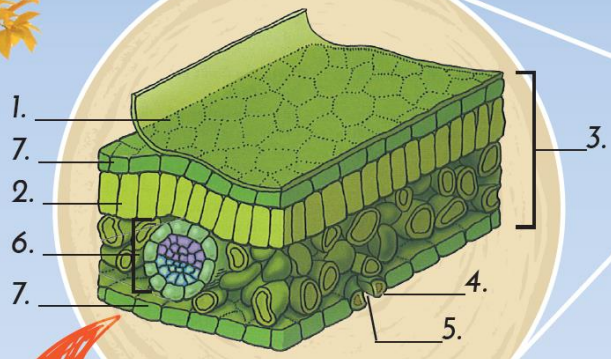
MyTreeTracker.org is a great citizen science site with additional resources.

Label each tree name with the number of the leaf on this page that comes from that tree.

_____ *Loblolly Pine* _____ *Douglas-fir* _____ *Quaking Aspen*
_____ *White Oak* _____ *Pecan*

DO YOUR PART: *It is important to plant native trees. They are adapted to your soil as well as good for native wildlife food and shelter. Want to find out what trees are native to your state? Research your state Department of Natural Resources, Forestry Division. Or check with you local soil and water conservation district. Find yours at: http://www.nacdnet.org/general-resources/conservation-district-directory/*

Solve the crossword puzzle to label the parts of this leaf.



cuticle
palisade
epidermis
guard
stoma
mesophyll
veins

ACROSS

2. _____ is an outer layer of cells that protects the leaf from water loss.

4. _____ tissue is found within the mesophyll layer. Their chloroplasts absorb a large portion of the light energy needed by leaves.

6. _____ is a protective film covering the epidermis of leaves.

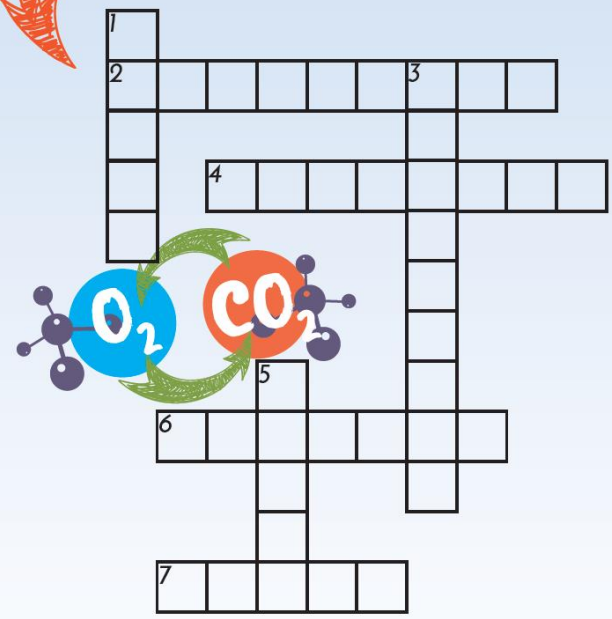
7. _____ cells are located in the epidermis of leaves and are used to control gas exchange.

DOWN

1. _____ are made up of the xylem cells which carry water and minerals from the roots to the leaf, phloem cells which carry sap out of the leaf and lignin tissue which helps give the leaf structure.

3. _____ cells are the green cells located in the middle of a leaf and are responsible for photosynthesis.

5. _____ is a pore located in the epidermis of leaves that allows air containing oxygen and carbon dioxide to enter the leaf.



TREES + ME = BETTER BEACH TIME

Cellulose – a fiber found in trees and other plants (its rigid structure helps them stand upright) is used as a thickening agent in suntan lotion.

There are no trees in the Artic Tundra

A

IS IT TRUE or FALSE?

Mark each statement with a "T" for true or an "F" for false.

- ( ) *Trees are the largest and longest living organisms on the planet.*
- ( ) *One large tree can provide the oxygen needed for 2 people to breathe.*
- ( ) *A tree can absorb 48 pounds of carbon dioxide from car emissions per year.*

- ( ) *Invasive plants cover about 133 million acres of land in the U.S., and are spreading over a million acres per year.*
- ( ) *One large tree can remove up to 100 gallons of water out of the soil and release it into the air in a single day.*
- ( ) *One person uses enough wood-related products per year to equal a 100-foot tree that is 18 inches in diameter.*
- ( ) *Giant sequoia trees can weigh over 4 million pounds.*

- ( ) *There are Bristle Cone pines in California and Nevada that are over 4,000 years old.*
- ( ) *If you hang a birdhouse in a tree, it remains at the same height even though the tree grows taller.*

ANSWER KEY

Pg 5 Term match: Biodiversity—The variety of plant and animal life; Food Web—Illustrates feeding relationships; Habitat—The natural home; Invasive Species—A nonnative species. FSI results: lack of biodiversity and/or invasive species. ***Pg 6*** 1. Loblolly Pine, 2. Quaking Aspen, 3. Pecan, 4. Douglas-fir, 5. White Oak. ***Pg 7*** Crossword: 1. vein 2. epidermis 3. mesophyll 4. palisade 5. stoma 6. cuticle 7. guard. ***Pg 8*** True/False: all true