IN YOUR COMMUNITY FOREST

by Sylvan and friends

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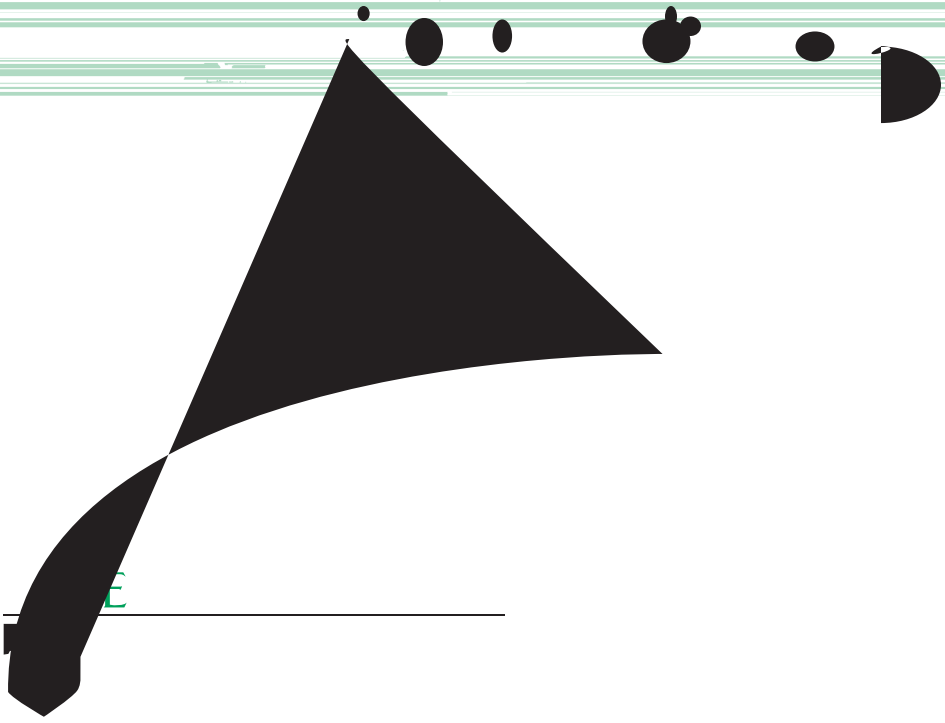

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Produced by William F. Elmendorf, assistant professor of urban and community forestry, and Sanford S. Smith, natural resources and youth education specialist.

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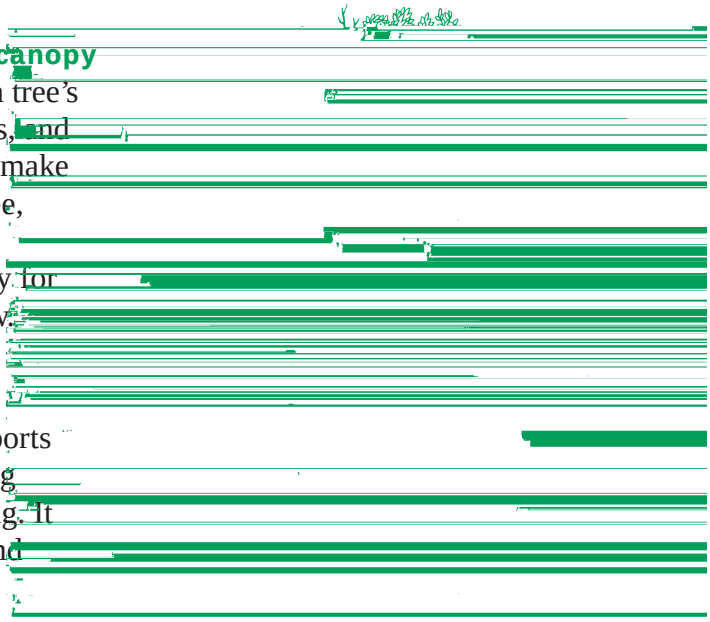
E l t J ^kv M^oqp A lbp ^ Qobb E^sb<

> qobb e^p qeobb j ^fk m^oqpÆ al vlr hkl t te^q qebv ^ob<

1. CROWN

The **crown** or **canopy** is made up of a tree's branches, twigs, and leaves. Leaves make food for the tree, and the food provides energy for the tree to grow.



2. TRUNK

The trunk supports the tree, making it tall and strong. It moves water and **nutrients** from the roots to the leaves. The trunk also transports food from the leaves to the branches and down to the roots.

3. ROOTS

The tree's roots absorb water and dissolved minerals (nutrients) from the soil. They also act as an anchor for the tree—they hold it down in the soil and keep it from falling over.

Most tree roots are in the first two feet of soil. Roots need air, water, and soil that is not crushed or damaged to grow.

PROJECT:

A root mystery for you!

Let's see if you can find out the length of the roots on a nearby tree. Roots can grow out to about three times the crown spread of a tree. Measure the distance from the trunk of the tree to a place on the ground directly beneath where the branches end (the tree's **drip line**).

Mul H d e l ure 6

Qvmbp lc Qobbp

Qobbp ^ob afsfaba fkql qtl

Elt Al Qobbp Dolt<

Qobbp dolt rmt^oa ^ka lrqt^oa+

How does photosynthesis happen?

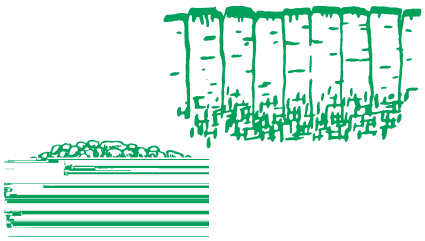
Inside each leaf are millions of **chloroplasts** (say *HILO*re* mi^pqp), where photosynthesis takes place. Leaves look green because of the green **chlorophyll** (say *HILO*re*aii*) in the chloroplasts. During photosynthesis, the chloroplasts work like tiny factories. They use sunlight, carbon dioxide, and water to create oxygen and sugar. This special type of sugar is the food that trees need to grow.

By the way, did you know that you breathe in oxygen and breathe out carbon dioxide? Trees do the opposite during photosynthesis; they take in carbon dioxide and release oxygen. So trees provide much of the oxygen we breathe through photosynthesis. In the wood of their trunks and branches, trees store carbon dioxide made by the burning of gas and other fossil

SOIL TEXTURE

P^ka m^oqf`ibp  Pfiq m^oqf`ibp @i^v m^oqf`ibp

SOIL STRUCTURE



J ^ppfsb Mi^qv

T ev A l
Tb Mi^kɑ
Qobbp<

PROJECT:

Tree Lists

Make a list of any reasons you can think of to plant a tree. Compare your list to mine below.

1. How many times have you sat in

Oeb @l j j rkfqv Clobpq

lllh ^olrkaÆ^ii qeb qobbp vlr pbb ^ob m^oq lc qeb `l j j rkfqv clobpq+

Did you know that you live in a forest? It may not be the kind of forest you think of when you hear that word. A **community forest** is made up of all of the trees in a town or city. Think about all the

CROSSWORD PUZZLE

(Answer on page 36.)

Across

0+ T e^q a l ^ qobb ^ka ^k bibme^kq e^sb fk `l j j lk<

2+ T e^q a l ^ qobb ^ka ^ hfkd e^sb fk `l j j lk<

3+ T e^q hfka lc qobb i lpbp fqp ib^sbp fk qeb t fkqbo<

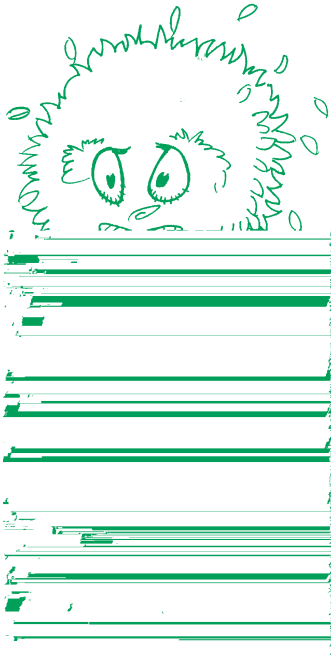
. -+ Pl j b lc qeb luvdbk qe^q qobbp mo l ar`b arofkd me l q lpvkqeb*
pfp fp rpba rm fk ^ mo l `bpp `^iiba \\\\\\\\\\+

Vl r @^k Mi^kq ^ Oobb

T e^q hfka lc qobb t fii v l r mi^kq<
T fii fq _b ^ _fd qobb<
T fii fq _b ^ «l t bofkd qobb<
T fii fq b ^ cor fq qobb<
T fii fq b ^ pe^ab qobb<
T fii fq _b ^k bsbodobbk<

First you have to find the right place to plant your tree. The place you choose to plant your tree is called the **site**.

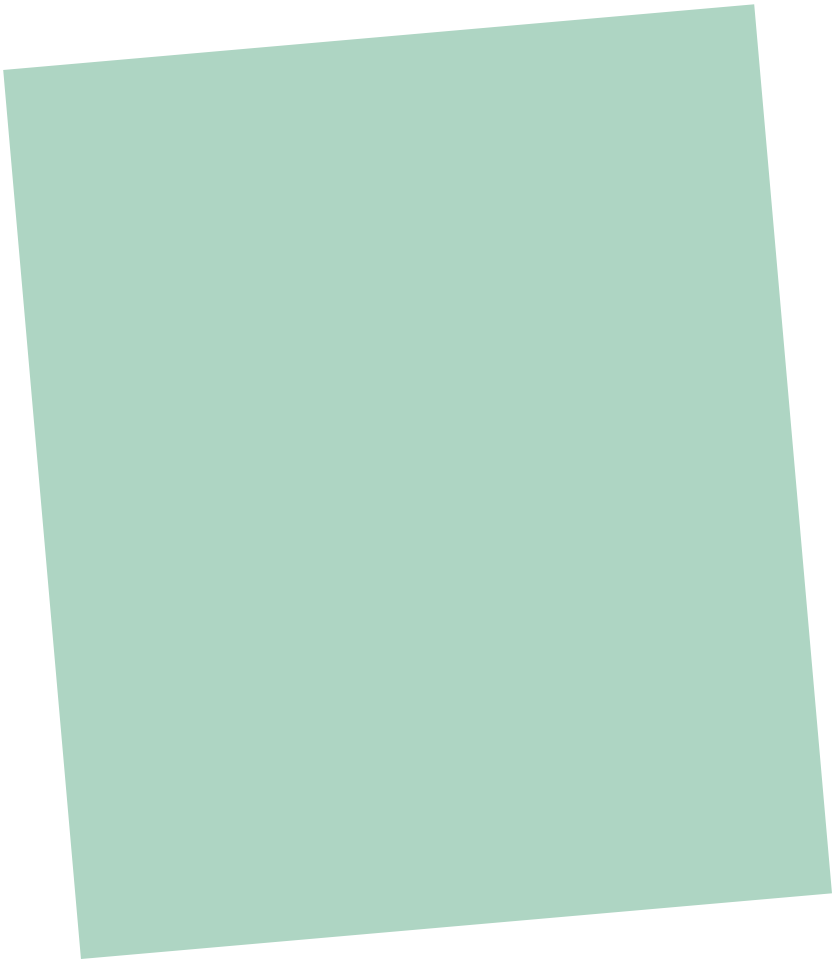
The first step is for you to find the best site to plant your tree. It is very important to look at and learn about the planting site before you buy and plant the tree. Once you know the characteristics of the place you are planting the tree, then you can decide what kind of tree will grow there. Trees need good sites to grow. A good site is big enough for a tree's roots and branches to grow, has the right amount of sun, and has good soil.



El t Al Vl r Cfka qeb ?bpq

LOOK DOWN:

1. Are there any pipes or wires underground?



The nursery has lots of trees like the one you have chosen. Do you know how to pick the best one? The best tree to pick is a strong and healthy tree.

Can you think of some trees you have seen that just don’t look right? Think about why they do not look good to you. Maybe their leaves are yellow when they should be green? Or they have broken or dead

WHICH OF THESE TREES WOULD YOU CHOOSE?

Circle the tree below that you would choose to plant.

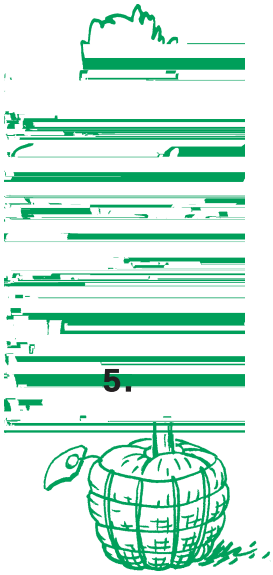
(Answer on page 36.)

1.

2.

3.

4.



5.

6.

Q^hfkd

Pqlofkd Vlro Qobb ^q Elib

No unplanted tree should be kept in the sun. Keep trees in the shade

?vqeb t^v)fc vlr ^obklq dlfkdql mi^kq vlroqobb ^p pllk ^p vlr dbqfq elj b) ebob ^ob plj b prddbpqflkp clo vlr+

E l t Al Vl r Mi^kɑ ^ ? ^iiba* fk*? roi^m Oobb<

Cfopɋ v l r kbba ɋl afd ^ e l ib c l o ɋeb ɋobb+

The hole should not be any deeper than the height of the **root ball**. This is very important. Do you know what the root ball is? It is the ball of soil that surrounds the roots of your tree.

Dig the hole for the tree so that the top of the root ball is level with or a little higher than the ground. Do you know why this is so important? If you dig the hole too deep and have to add soil to it to make the top of the root ball level with the ground, the soil you add to the bottom of the hole could settle. This would cause the root ball to go down and the tree to be planted too deep. Another reason not to dig a hole too deep is that any extra soil that you put on top of the root ball reduces the amount of o

The planting hole should be at least two to three times wider than the diameter of the root ball. Measure the diameter of the root ball and multiply that number by two or three. The wider the hole, the better. Do you know why a wider hole will help the tree grow better? (Answer on page 36.)

Before you set the tree in the planting hole, remove any string that is tying the limbs together. Carefully lower the root ball into the center of the planting hole. Make sure the tree is straight before you remove any string, burlap, or the wire basket. If any other straps, ties, or string are wrapped around the root ball or the tree's trunk, remove them.

If the burlap on your root ball is real, it can be left in the planting hole when you plant the tree. If the burlap on the root ball is artificial, it must be removed from the planting hole. Make sure there is no burlap showing above the soil when you plant the tree. This is important because any burlap that is above

Eıt
Al Vır
Mi^kɑ ^
@ıkɑ^fk

Eıt
Al Vır
Mi^kɑ ^
? ^ob*O l lɑ
Qobb<

T e^q @^k Vl r Al ql Pq^oq Vl ro Qobb L cc Ofdeq<

Vl r cl rka vl ro qobb ^ dl l a el j b) kl t vl r kbba ql `^ob cl o

3. PROPER PRUNING

Do not prune newly planted and young trees too much. Remove only competing **leaders** and branches that are broken, unhealthy, dead, or not growing properly. As many branches as possible are needed to help tree roots grow.

Morkb ^ t ^v `l j mbqfkd
ib^abop+ E^sfkd q t l
ib^abop `^k i ^hb ^
mi^`b t ebob qeb qobb
j ^v pmifq ^p fq dol t p+

Morkb ^kv
`ollhba lo
j fppe^mbk
o^k`ebp+

Morkb ^ o^k`e qe^q
`olppbp ^klqebo
o^k`e+

Morkb ^kv _olhbk
lo _^aiv a^ j ^dba
o^k`ebp+

Morkb ^kv _o^k`ebp

Fkpb`qp ^ka Afpb^pbp

Al vlr hkl t te^qql illh clo<

Here's another opportunity for you to be a detective. It's important for you to examine your tree regularly for harmful insect and disease **pests**. You'll be better able to detect and control any problems on the tree if you check it regularly. Look for clues of insect or disease problems on the trunk, branches, and the tops

E l t
@^k Vl r
J ^k^db

Dolrmp lc
Qobbp >ob
F j mloq^kq

WORD SEARCH PUZZLE

Twenty-one words related to trees and planting are hidden in the puzzle below. All of the words can be found somewhere in this booklet. The hidden words may be written forward, backward, up, down, or diagonally. See if you can find and circle all of them! (Answer on page 37.)

B	I	R	C	O	N	T	A	I	N	E	R	R	Z	H	D
A	P	O	H	M	T	U	C	L	U	P	O	M	R	V	E
L	H	H	L	U	T	S	E	R	O	F	N	A	V	U	R
L	C	R	O	O	T	B	A	L	L	T	S	K	Q	I	C
E	R	E	R	T	R	R	I	B	A	C	K	F	I	L	L
D	E	C	O	T	O	E	V	E	R	G	R	E	E	N	A
I	Z	E	P	B	A	S	C	R	O	O	N	R	S	A	S
N	I	W	H	A	Q	P	Y	M	U	I	U	I	Y	L	U
B	L	A	Y	R	H	I	O	N	F	Q	T	E	V	M	O
U	I	T	L	E	O	R	W	A	T	E	R	C	P	N	U
R	T	O	L	R	M	A	R	O	O	H	I	I	E	S	D
L	R	C	H	O	R	T	N	U	R	S	E	R	Y	I	I
A	E	D	E	O	C	I	Z	E	T	U	N	S	N	U	C
P	F	C	B	T	D	O	R	M	A	N	T	L	I	R	E
D	E	I	R	E	V	N	D	O	N	M	S	T	O	S	D
M	U	L	C	H	R	E	R	E	T	E	M	A	I	D	T

Hidden Words:

BACKFILL

BALLED-IN-BURLAP

BARE-ROOT

BERM

CHLOROPHYLL

CONTAINER

DECIDUOUS

DIAMETER

DORMANT

EVERGREEN

FERTILIZER

FOREST

IPM

MULCH

NURSERY

NUTRIENTS

PHOTOSYNTHESIS

RESPIRATION

ROOT BALL

SITE

WATER

Dilpp^ov

backfill The soil used to fill in the planting hole.

balled-in-burlap A type of tree package. The trees are grown in the ground and dug up with a ball of soil around their roots. The ball of soil is wrapped tightly in burlap.

bare-root A type of tree package. After the trees have been grown in the ground

evergreen Trees that are green all year because they do not lose all their leaves in one season like deciduous trees. Pine trees are an example of evergreen trees.

habitat The place that provides a plant or animal everything it needs to grow or live.

inorganic mulch Mulch that is made from something other than plant material; for example, gravel, crushed stone, or shells.

leader The shoot, limb, or trunk of a tree that leads all other branches in vertical growth.

mulch A protective covering that is spread on the ground around trees or other plants.

native tree A tree that naturally grows in your area.

needle-leaved trees Trees that have needle-like leaves. Pine trees and spruce are examples of needle-leaved trees.

non-native tree A tree not originally found growing in your area.

nutrients

>kp t bop

Nrbpofl kp ^ka D^ i bp

PAGE 9

Will the birdhouse move up as the tree grows taller?

The birdhouse will not move up as the tree grows taller. Remember, a tree grows upward from the top and tips, so it won't carry the birdhouse up with it.

PAGE 16

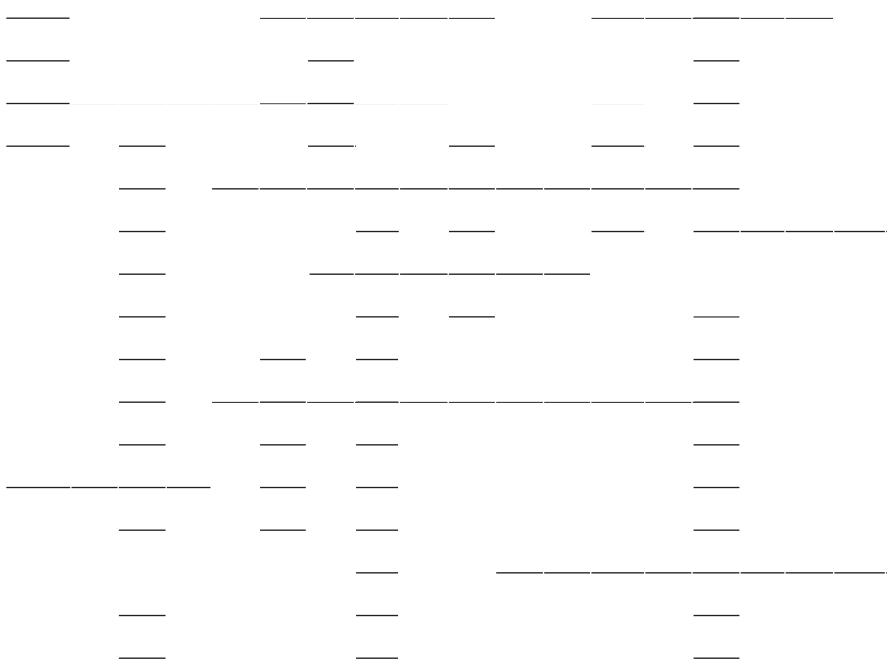
Why is it important to visit your site at different times?

Your site could be shady in the morning, but sunny in the afternoon.

PAGE 19

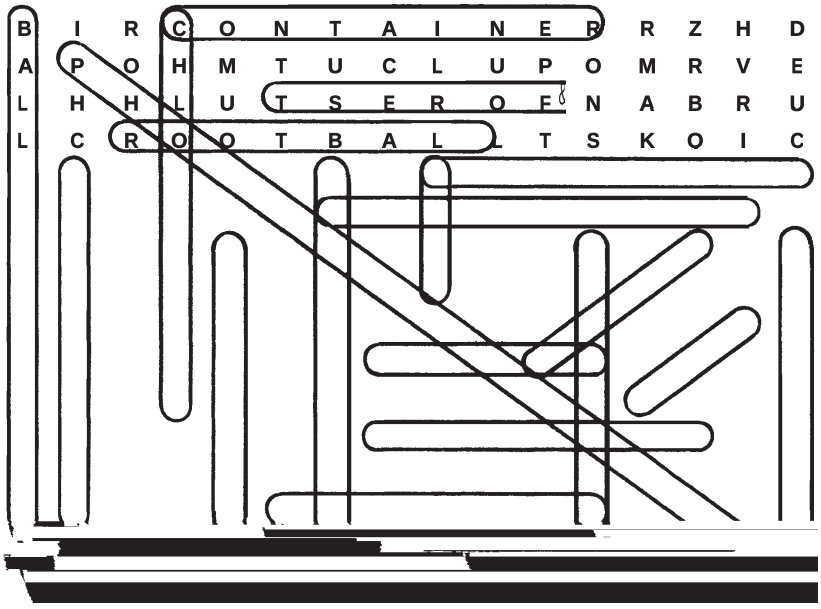
Do you know what burlap is?

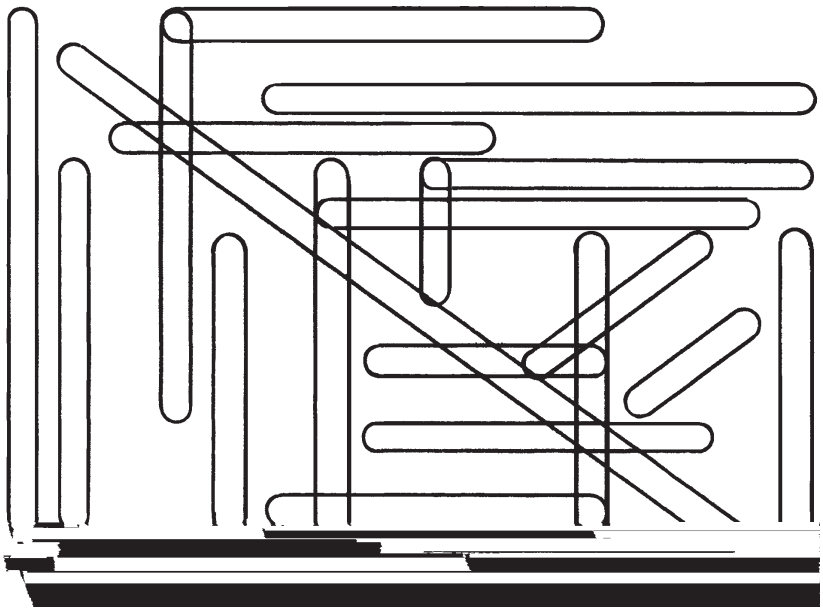
It's a heavy cloth made of big natural fibers that are loosely woven.



PAGE 33

WORD SEARCH PUZZLE





Klabp

Farewell from Sylvan and Friends

Planting a tree and caring for it is one of the most wonderful things you can do. My friends and I hope we have helped you understand how important trees are for the community forest.