

White Mountain National Forest

Wildlife Detective



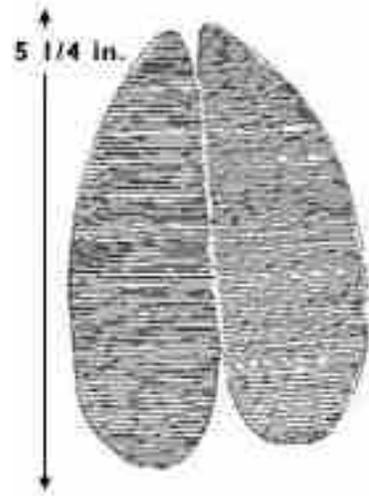
Wildlife Detective Forrest Visitor is on the scene!
You've received a report of a suspicious animal near
Lost Pond. Put these clues together to solve the case!

Clue # 1

You find several piles of brown, egg-shaped droppings. The droppings look like Milk Duds candy. Draw a sketch of what this might look like in the space to the left.

Clue # 2

In the mud near Lost Pond, you notice several big tracks that look like upside-down hearts that have been split down the middle. It measures 5 1/4" long. Compare your foot with the track. Is it bigger or smaller?



Clue # 3

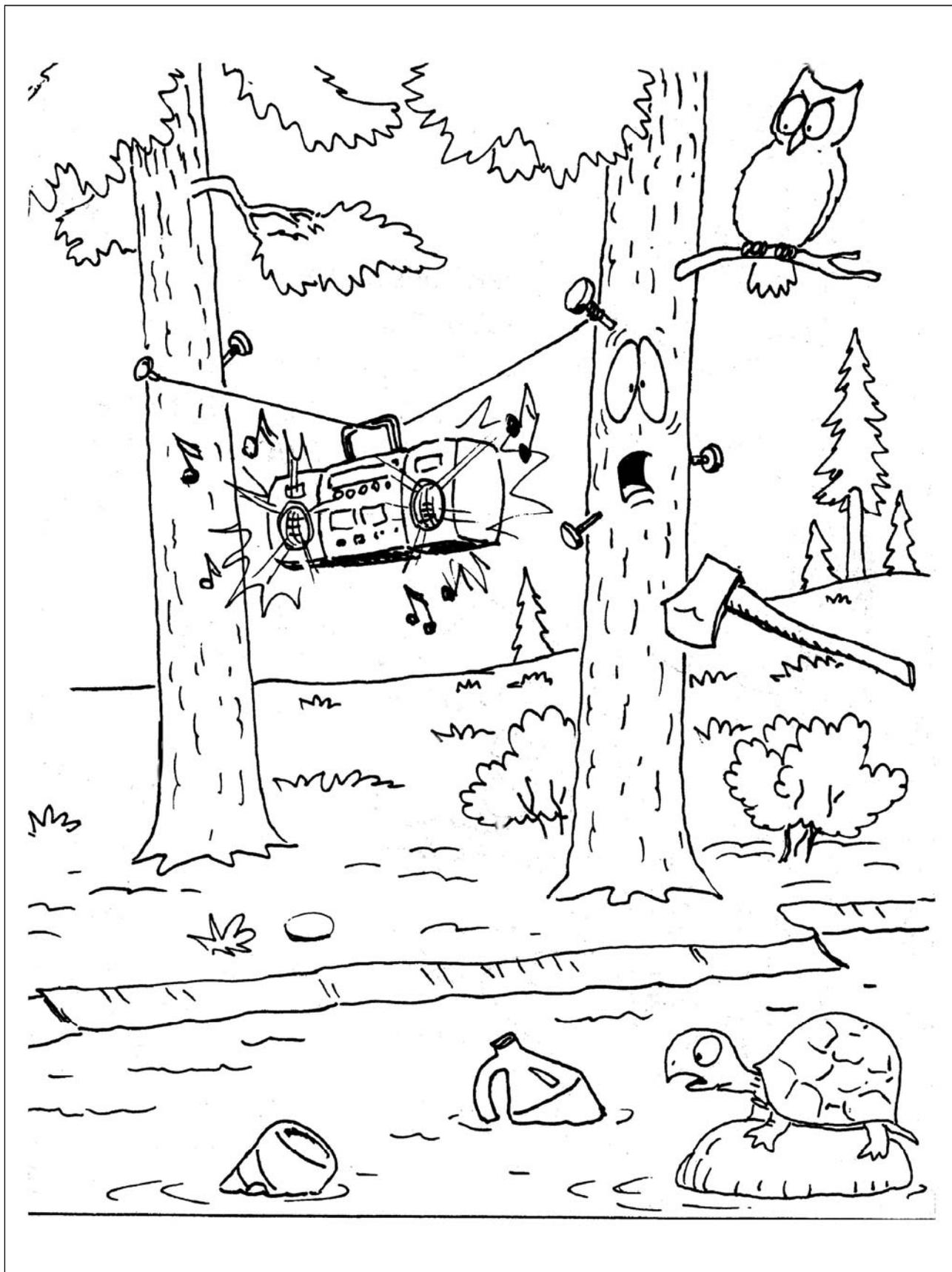
You find a large bony antler under a tree near the pond.

What animal left these clues behind?



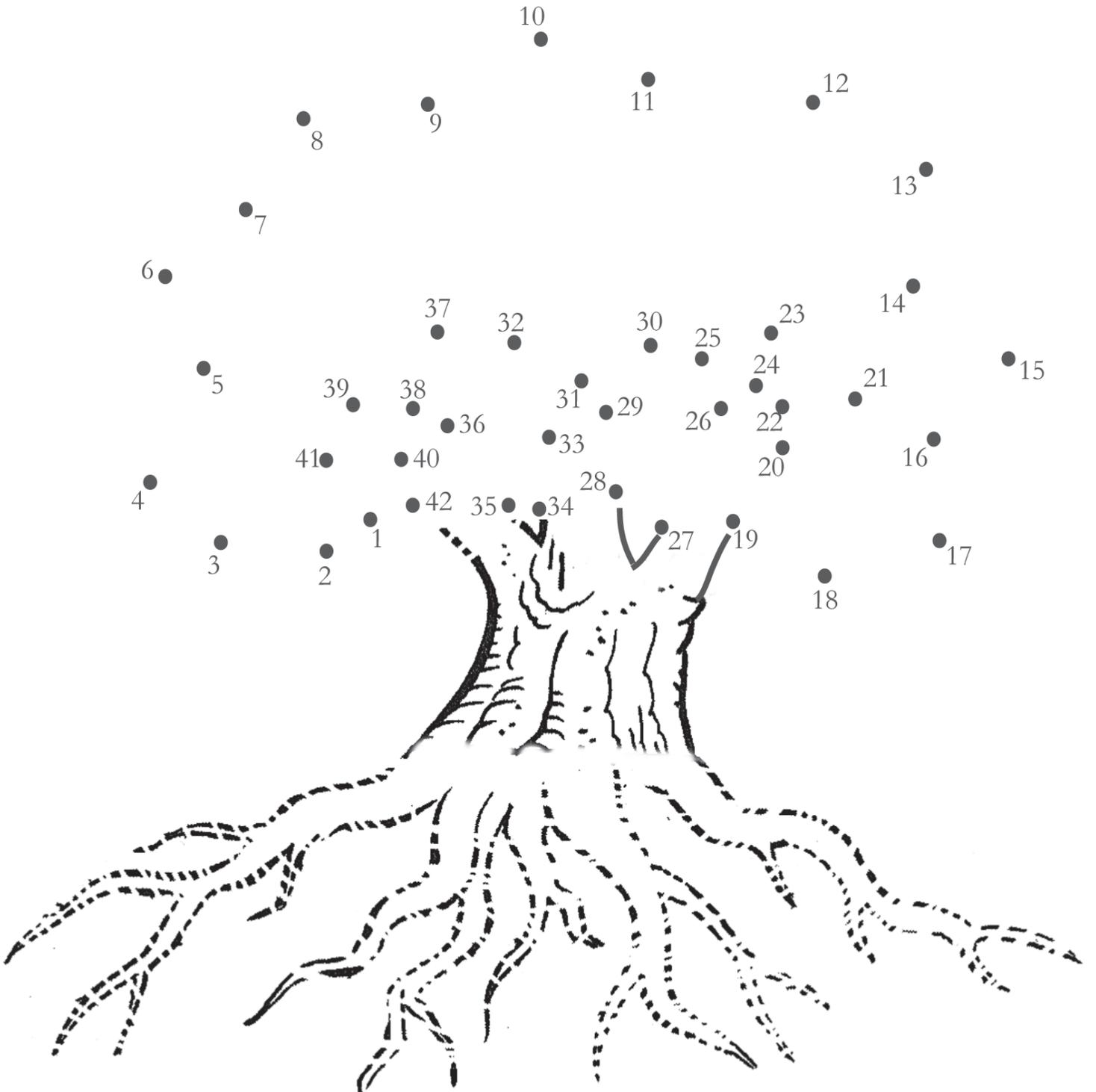
**Please respect nature and each other.
Leave no trace, pack out your trash
and enjoy the quiet!**

Circle the things you shouldn't do in the outdoors. Then color the page.



Tree Factory

A tree has different parts that make food and help it grow. LEAVES use sunlight to make food for the tree. BRANCHES hold the leaves up to the sun. The TRUNK holds the tree nice and tall. ROOTS get water and nutrients from the soil and hold the tree up. Connect the dots to complete this drawing of the tree. Draw a Yellow sun, Blue rain water, and brown soil. Then color the tree and all its parts.



WOOD you believe; We get so much from trees!

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

Many of the things we use everyday come from trees. You might be surprised by some of the things made from wood or by-products of trees.

Find the words from the list below in the word search. Look across, up, down, diagonal, and backwards.

- | | | |
|-----------|-----------|------------|
| Band aids | Furniture | Paper |
| Carpet | Ice Cream | Pencils |
| Clothes | Lumber | Rubber |
| Fruit | Medicine | Toothpicks |
| Fuel | Paint | Toothpaste |
| | | Toys |

Can you think of more products you use that come from trees? Make a list of the products and make your own word search to share with others.



Did You Know? Each person uses the equivalent of one 100 foot tall, 16 inch diameter tree every year for their paper, wood products, and daily life needs



Tree Trunk Trivia

How do trees grow, get food, and do what they need to survive? Every part of a tree has a function that helps it to live. There's more to a tree's trunk than just wood:

_____ **Bark** protects the tree from injury caused by insects and other animals, by other plants, by disease, and by fire. It may be thin, thick, spongy, rough, smooth, covered with spines, and so on, depending on the type of tree).

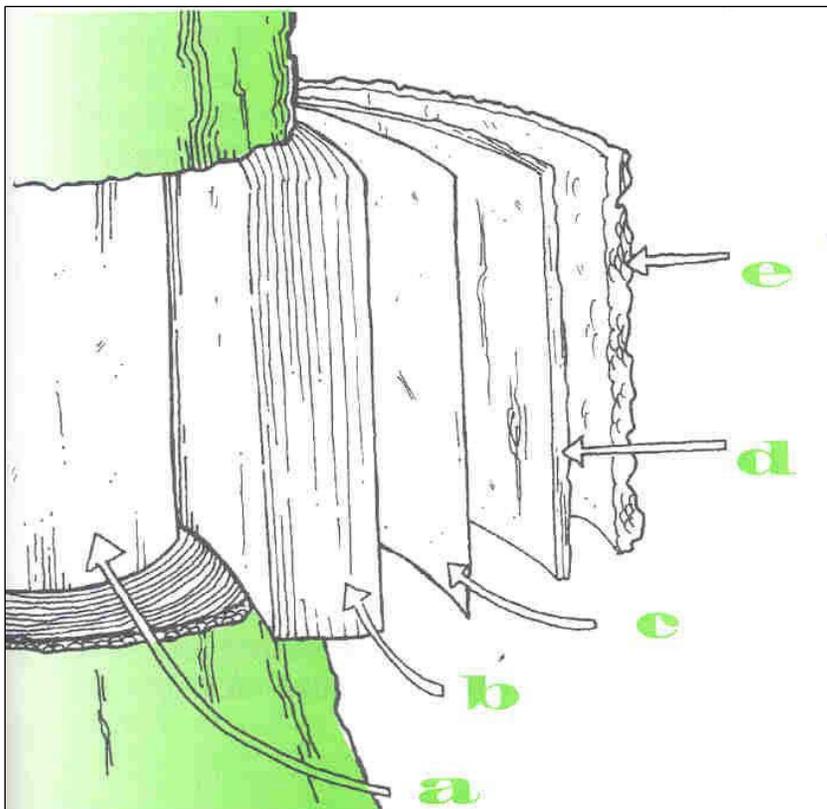
_____ **Cambium** (KAM-bee-uhm), a very thin layer of growing tissue, makes cells that become new xylem, phloem, or cambium. It is where the tree's growth occurs.

_____ **Heartwood** forms the central core of the tree, is made up of dense dead wood, and provides strength for the tree.

_____ **Phloem** (FLOW-uhm), also called the inner bark, carries sap (sugar and nutrients dissolved in water) from the leaves to the rest of the tree. .

_____ **Xylem** (ZEYE-luhm), also called sapwood, brings water and nutrients up from the roots to the leaves. Older xylem cells become part of the heartwood.

(adapted from Project Learning Tree)



Directions: Match the tree trunk parts labeled with the descriptions on the top of the page.

- **Did You Know?** New Hampshire, Maine and many other states take part in the Big Tree program. The largest tree of a particular species is identified and listed for all to enjoy.
- Check out the list to see if you have a big tree near you!



A Mountain Travel Puzzler



To uncover the secret ending to the message below you will need to work with both the message box and the puzzle box.

Below each letter in the message box you will find two numbers. Find the first number of each set along the left side of the puzzle box. Find the second number along the bottom of the puzzle box.

If you move your left finger from the first number toward the right along the grid line, and you move your right finger toward the top along the grid line, you will end up with both fingers in the same square. The letter you find in that square can now be put on the line below the pair of numbers.

Two letters have already been filled in to help you get started. Can you retrace how we found them?

Fill in the rest of the letters and finish the message to discover the most important thing you should do when traveling in the mountains.

Message: To have a safe, enjoyable outdoor experience, and help reduce search and rescue efforts, you need to

Message Box

2/6 1/8 2/7 4/10 2/7 4/6 1/6 2/7 2/9 2/7 4/10 2/9 2/6 2/8 1/6 2/6 2/7 2/8 1/6
 P _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ E

1	E	G	L	W	J
2	P	A	R	D	T
3	B	M	O	X	F
4	H	C	Q	U	N
5	V	S	K	Y	I
	6	7	8	9	10





BIOMASS



Fill in the blanks with the words in the box at the bottom of the page. Use each word only once.

1. Biomass is any _____ that was alive a short time ago.
2. Biomass is a _____ energy source, because we can always grow more plants.
3. We _____ most biomass to make heat.
4. We burn garbage in a _____ plant to make _____.
5. When biomass rots, it forms a _____ called _____ that we can use for energy.
6. Biomass can be turned into a liquid fuel like gasoline called _____.
7. Most of the biomass we use is _____.
8. Plants _____ energy from the sun in their roots and leaves.

renewable
electricity

ethanol
material

methane
burn gas

wood store
waste-to-energy

A World of Difference



National Forests provide are important for wood products, wildlife, and clean air and water. The Forest Service works to keep our forests healthy so that they can help keep the Earth healthy. Science teaches us that we can make many choices each day that will also help keep the earth healthy.



How can I save money AND help the Planet?

Put a check next to each action that you will do to make the Earth a more safe, sustainable, And fair home for everyone!

- Turn off the water while I'm brushing my teeth.
- Write and color on both sides of my paper
- Use a sponge or cloth napkin to clean up my messes
- Help recycle cans, bottles, paper, and electronics
- Turn off the lights and t.v. when I leave a room
- Pack lunches/snacks in reusable containers
- Give old toys/clothes to charity
- Tell my friends and teachers how I am being "Green"
- Can you think of one more?

The White Mountain National Forest employees are making choices to reduce their environmental impact, too. Draw a line from the choice on the left, to its impact on the right. Some choices may have more than one impact.

- | | |
|--|---|
| ▲ Recycle batteries | ▲ Reduces the amount of trash going into landfills |
| ▲ Buy in Bulk quantities | ▲ Keeps heavy metals like mercury and cadmium out of our watersheds |
| ▲ Choose recycled paper with post consumer content | ▲ Keeps toxic fumes out of our homes/offices |
| ▲ Purchase non-toxic cleaning supplies and paints | ▲ Reduces the amount of energy needed to create products from new materials |

Answer Page

Pg 7 A Forest Provides These!

Clean Air
Scenery
Jobs
Food
Wildlife Habitat
Recreation
Forest Products
Clean Water
Lumber
Paper
Firewood

Pg 16 A Mountain Travel Puzzler PLAN AHEAD AND PREPARE

Pg 17 Biomass

1. material
2. Renewable
3. Burn
4. Waste-to-energy
5. Gas, methane
6. Ethanol
7. Wood
8. store

Pg 12 HikeSafe

Compass, extra food and water, first aid kit, flashlight, map, matches, pocket kniferain/wind gear, warm clothing, whistle

Pg 18 Forest Facts

1. trips to the moon
2. Green Mountain and White Mountain National Forest
3. Mt Adams, Mt Washington, Mt Lafayette
4. New Hampshire and Maine
5. Kancamagus
6. 2,875 feet
7. Russell Colbath House, Brickett Place
8. 6,288 feet
9. Ast
10. Androscoggin
11. 50
12. Pemigewasset
13. Rumney Rocks

Pg 14 Nature Riddles

1. Palm
2. Tick
3. Beech
4. Bee
5. Fir
6. Ant
7. Cardinal
8. Walking Stick
9. Ash
10. Pear
11. King Fisher
12. Jay

Pg 15 Tree Trunk Trivia

E—Bark
C—Cambium
A— Heartwood
D— Phloem
B— Xylem

