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MEET A TREE – Cycles – SLIDE SHOW SCRIPT (Grades K-2)

1. SUGAR MAPLE IN LATE WINTER

Here is a Sugar Maple tree in the early spring. We're going to follow this tree through the changing seasons.

2. ROOTS

A tree's roots hold onto the soil and anchor the tree. Along the roots are tiny root hairs. These hairs draw in water and minerals from the soil.

3. TRUNK WITH SAP BUCKETS

Here in New England, we know spring is on the way when we see buckets like these on our sugar maple trees. Freezing nights and warmer days are needed for the sap to flow. When the days start getting longer, the tree begins to wake up.

4. MAPLE FLOWERS AND NEW LEAVES

The tree's branches and twigs are covered with tightly closed buds all winter. As spring arrives, some buds unfold into flowers like these, that later make seeds. Others unfurl into new leaves. Leaves contain a chemical called *chlorophyll* that makes them look green. Chlorophyll helps make food for the growing tree.

5. TREE GROWTH RINGS

A tree grows every year by adding a new ring of wood underneath the bark. You can find out how old a tree is by counting the rings. Wide rings mean the tree grew fast, and skinny rings mean something made the tree grow more slowly – like too little water or sun, or a forest fire.

6. BARK

What is a tree's bark for? (**some answers:** *protects it from insects, disease, fire, drying out*) The bark can tell a story, too. What made this small round scar in the bark of our tree? (*maple tap*).

7. MAPLE IN SUMMER

In the long, hot days of summer, our tree pulls up a lot of water from the soil and then lets out what it doesn't need as water vapor through tiny holes in its leaves. A large tree can move 300 gallons of water in a day.

8. MAPLE SEEDS

These maple seeds have been developing all summer and now they are ready to fall. They twirl around like helicopters in the wind. This helps them travel to a place...

9. SPROUTING MAPLE SEED

...where they can sprout into a new tree.

10. AUTUMN MAPLE

When the days grow shorter and cooler, it's time for our tree to start getting ready for winter. When the ground is frozen, the tree won't be able to get water. To keep from drying out, the tree seals off the base of each leaf, blocking the flow of water.

11. AUTUMN LEAF

Without water, the leaf can't make any more green chlorophyll, and the green color fades away. Now we can see the other colors in the leaf. No longer needed, the leaves drop off...

12. WINTER TWIGS

...and now our tree is ready for its quiet winter sleep. Safe within its tightly closed buds, next year's flowers and leaves wait...

13. WINTER MAPLE

...for the cycle to begin all over again.