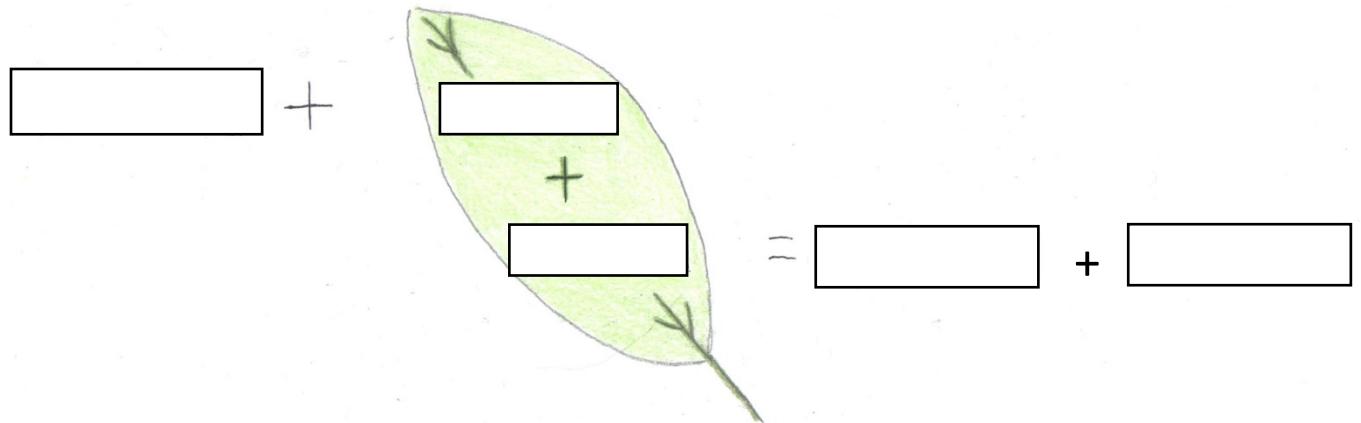# Branching out: a lesson on trees

Introduction:
The following worksheet has several problems for you to solve about trees. You can find clues to help complete the worksheet in our video on trees. If you do not have access to the video, you may still be able to complete some of the questions. The questions that require the video are noted in the worksheet. We think trees are really cool and hope that you enjoy learning about them in our lesson.

Section 1—Photosynthesis:

Photosynthesis is the process by which plants use sunlight to create oxygen and food (sugar) from carbon dioxide and water.

Photosynthesis Problem 1:
Fill in the blank spaces on the picture below with the correct key terms

Key terms: carbon dioxide, sunlight, oxygen, water, sugars

Photosynthesis Problem 2:

Ari and their family are leaving for vacation this week. Ari got a new plant and wanted to make sure it wouldn't get sunburnt while they were gone, so Ari put a box over it. When Ari and their family came home a week later, they noticed the plant looked dry and shriveled. Ari is concerned and wants to help their plant grow. What are 3 things that Ari can do to help their plant grow?

1. _____

2. _____

3. _____

Section 2—Layers of a tree:

This activity requires a video. If you are unable to access the video, you may skip this section.

Like animals, trees are composed of different parts. Each of these parts has a unique name and works in a special way to help the tree survive.

Problem 3:

Below is a picture of the inside of a tree trunk. Descriptions of the functions of each tree part are listed inside the boxes. The arrows connect the boxes with the corresponding part in the tree. For this problem, please write the correct name for each part of the tree in the box above the description.

Key words: bark, cambium, heartwood, phloem, sapwood

Layer #1:
Outer layer of the tree. Protects tree from insects, moisture, and hot and cold seasons.

Layer #2:
Pipeline through which food is passed from the leaves to the rest of the tree.

Layer #3:
A layer of the tree that creates new cells and passes them to the other layers for the tree to grow.

Layer #4:
Pipeline for moving water up to the leaves. Contains the newest wood in the tree.

Layer #5:
Central supporting pillar of the tree.

Section 3—Tree Identification:

There are many different types of trees (tree species) in New Hampshire. All of these trees have unique characteristics that can be used to determine the species of the tree. We discuss the characteristics of several different types of trees in the video lesson which goes with this worksheet.

*** The video contains important clues to help solve the problems below. If you are unable to access the video, but are able to access the internet, you may still be able to solve some of the problems.***
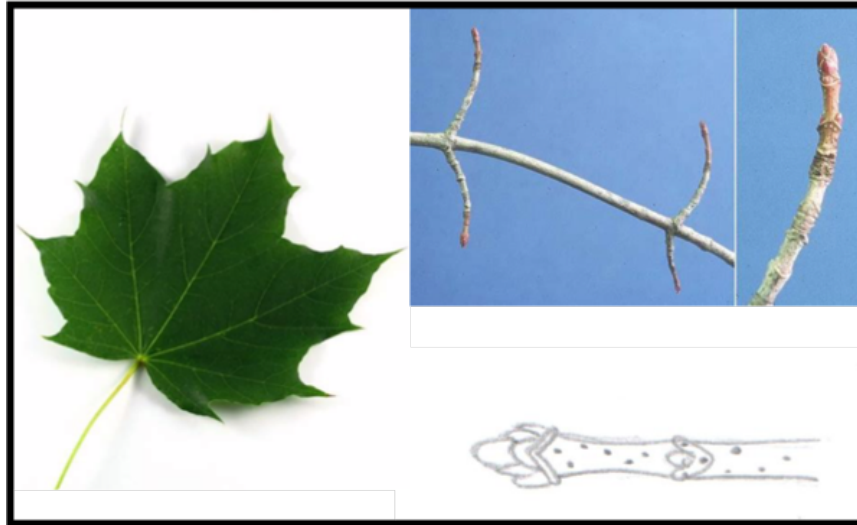
Problem 4:
Pick 3 of the 6 tree species below and provide their name on the provided line. Additionally, list one characteristic of each of those 3 trees.

Tree name:

Characteristic:

Tree name: _____

Characteristic: _____

Tree name: _____

Characteristic: _____

Tree name:

Characteristic:

Tree name:

Characteristic: