My question: “What is a tree?”

1. Draw a tree.

2. What makes it a tree?
Observing My Tree

To make an observation means looking at something very closely. You can use your five senses and science tools such as a hand lens to observe.

1. Go outside and look at tree. List your observations.
2. Go to your tree. Walk 20 steps away from your tree. Then draw what your tree looks like from a distance.
A Mouse’s View

3. Pretend you are a teeny tiny mouse. What would your tree look like if you were a mouse? Draw your tree from below.
A Bird’s View

4. Imagine you are a bird flying above your tree. How would your tree look? Draw your tree from above.
**Trees as Habitats**

1. Which of these is important in a habitat? (Circle)
   - food
   - water
   - TV
   - shelter
   - computer
   - air

2. How do birds, mammals, insects, and other living things use trees as their habitats?

3. Look at your tree. Which of these do you see in your tree? (circle)

<table>
<thead>
<tr>
<th>Nest in branches</th>
<th>Woodpecker holes</th>
<th>Hole in trunk</th>
<th>A bird</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ants</td>
<td>Moss</td>
<td>Brown leaves</td>
<td>Mushroom or fungus</td>
</tr>
<tr>
<td>Vine</td>
<td>Seeds</td>
<td>Nuts or acorns</td>
<td>Flowers</td>
</tr>
</tbody>
</table>
What do **animals** need to survive? (circle)

- food
- water
- TV
- shelter
- computer
- air

4. Which animals do you think use your tree?
   How do you think they use it?

<table>
<thead>
<tr>
<th>Animal</th>
<th>How it uses the tree</th>
</tr>
</thead>
<tbody>
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<td></td>
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</tbody>
</table>
Leaves

Most deciduous trees have broad leaves that drop in the fall. Most coniferous trees have needles that stay on the tree all year.

1. Does your tree have broad leaves or needles?

2. Is your tree deciduous or coniferous? (Circle)

3. On the next page, draw a picture of a leaf from your tree. Observe one leaf very closely. Draw your leaf with as many details as you can. Make it the size it is.

   Check off each detail you draw:
   ___ Size of my leaf
   ___ Shape of my leaf
   ___ Colors of my leaf
   ___ Stem of my leaf
   ___ Veins
   ___ Any holes or missing pieces
   ___ Other details I notice
My Leaf Drawing
Answer some questions about your leaf.

1. What color is your leaf? ________________________________

2. Are the colors the same on both sides? (circle)
   yes  no  somewhat

3. How does your leaf feel? Circle the texture words that describe your leaf.
   dry  wet  bumpy  smooth  warm  cool  furry

4. Add some more texture words of your own:

   ____________________________________________
   ____________________________________________
   ____________________________________________

5. What does your leaf smell like?

   ____________________________________________

6. Does it remind you of any other smells?

   ____________________________________________

7. What other characteristics stand out about your leaf? Describe its shape, branching, leaf edges, etc.

8. What is the shape of your leaf? ________________________________

9. Are all of the leaves on your tree the same shape? _________________

10. What else do you notice? Are there other characteristics that make this leaf unique?
Seeds

1. Does your tree have seed that you can see right now? (circle)

   yes  no  unsure

   *If you can’t see one of your tree’s seeds, look it up online to see what it looks like.*

2. What kind of seeds does your tree have? Circle the type of seeds your tree has.

   fruit  nuts  acorns  pods  “helicopter” seeds  cones

3. Observe one of your tree’s seeds closely. Carefully draw a picture of one of your tree’s seeds, adding as many details as you can.

   **My Seed Drawing**
Twigs

1. Look at your twig. Circle the pattern that most closely matches what you see.

   alternate     opposite     whorled

2. Draw a picture of a twig from your tree.
3. Check off the details you have included:
   __ Color
   __ Shape
   __ Size
   __ Spots, holes, patterns, marks

   My Twig Drawing
Bark

1. Observe your tree’s bark closely. Feel the texture. Describe it in detail.

2. Take a piece of blank, white paper and hold it flat against your tree’s bark. Use the side of a crayon to make a texture rubbing of your bark.

3. When done, you can store that paper in this journal.
Measure Your Tree’s Trunk

**Perimeter** is the distance around an object. The perimeter around a circle is called the **circumference**.

1. Work with a partner and wrap a piece of string around your tree’s trunk. Make sure the string is level all the way around.
2. While your partner holds the string, carefully cut it where it meets the beginning of the string.
3. Put in your pocket the extra piece of string that you cut off.
4. Write your name on a piece of masking tape. Attach the tape to your string.
5. How does the length of your string compare to the strings of the other students? Is your sting
   Longer
   Shorter
   About the same length

The length of your string is the **circumference**, or the length all the way around your tree’s trunk.

6. Use Unifix cubes to measure your string.
   How many Unifix cubes did you need? ________________ cubes

7. Use a measuring tape to measure your string.
   How many inches is your string? ________________ inches
Remember, the **circumference** is the perimeter around the trunk. Now measure the circumference of your tree at different heights.

1 foot from the ground = _________________ inches

2 feet from the ground = _________________ inches

4.5 feet from the ground = _________________ inches

Did the width of the trunk: (circle)

a. Stay the same

b. Get wider as you moved up from the ground

c. Get wider at the bottom

d. Other: ________________________________

Foresters always measure circumference at 4.5 feet from the ground. Why do you think they take measurements from this height only?
**Measure your tree’s average crown spread**

All the branches together make up a tree’s **crown**.

The **average crown spread** is the average distance that the branches reach away from the trunk.

1. Have a partner hold one end of the tape measure next to the tree’s trunk.
2. Pull the tape measure away from the trunk. Stop when you reach where the branches end above you. Record the distance in the table below. Repeat steps 1 and 2 four times.
3. Find the TOTAL by adding the four distances together.
4. Find the average crown spread by dividing the TOTAL by four (the number of measurements you took).

**Crown Spread**

<table>
<thead>
<tr>
<th>First measurement</th>
<th>inches</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second measurement</td>
<td>inches</td>
</tr>
<tr>
<td>Third measurement</td>
<td>inches</td>
</tr>
<tr>
<td>Fourth measurement</td>
<td>inches</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>inches</td>
</tr>
<tr>
<td>Divide the TOTAL by 4 to get the <strong>average crown spread</strong></td>
<td>inches</td>
</tr>
</tbody>
</table>
“Poet-tree” Poetry

Sit by your tree. Observe your tree closely. Make a detailed drawing of your tree. Then look around. What else is nearby? Draw the surroundings. Include as many details as you can.
Use your observations to write different poetic forms.

**Haiku** is a Japanese form of poem that has 3 lines.
Line one: 5 syllables  
*The snow-covered tree*
Line two: 7 syllables  
*Sparkles under the moonlight*
Line three: 5 syllables  
*The wind rushes by*

**Windspark** poems have 5 lines, starting with these prompts.
Line 1: I dreamed  
*I dreamed*
Line 2: I was  
*I was a tree*
Line 3: Describe a place  
*On a hillside*
Line 4: Describe an action  
*Playing with the wind*
Line 5: An adverb ending in –ly  
*Joyfully*
**Cinquains** have five lines

The title is one word, which is the title of the poem

Forests

Line 2 has two words, which are adjectives that describe the title.

Graceful, growing

Line 3 has three words that tell the reader more about the subject of the poem or shows action. Often, these words end in -ing.

Reaching, stretching skyward

Line 4 has four words that show emotions about the subject of the poem and many be individual words or a phrase.

Calmly awaiting the sunrise

Line 5 is one word that is a synonym of the title or is very similar to it.

Alive

**Acrostic** poems are like acronyms. The first letter in each line, read vertically spells what it is describing. Here is one about a TREE.

- **T**owering
- **R**eaching
- **E**xtending
- **E**mbracing the sky
**Diamante poems** are diamond-shaped and have 7 lines.

<table>
<thead>
<tr>
<th>noun</th>
<th>Seed</th>
</tr>
</thead>
<tbody>
<tr>
<td>adjective</td>
<td>Small, buried</td>
</tr>
<tr>
<td>participle</td>
<td>Growing, breathing, living</td>
</tr>
<tr>
<td>noun</td>
<td>Life, oxygen, shade, habitat</td>
</tr>
<tr>
<td>participle</td>
<td>Waiting, reaching, moving</td>
</tr>
<tr>
<td>adjective</td>
<td>Hopeful, excited</td>
</tr>
<tr>
<td>noun</td>
<td>Seedling</td>
</tr>
</tbody>
</table>

**Picture poems** form a picture of what is happening in the poem. Here’s an example of a poem shaped like a tree.

```
Branches
Shade, happiness, habitat
Paper, wind-break, fuel oxygen
Furniture, tree houses, maple syrup
Parks, nuts, fruit, seeds
Stick forts
Nests
Wood
Home

Roots
```
Species
Identify your tree’s species.
Now that you have closely observed your tree’s leaves, twigs and seeds, use a tree identification book or website to identify your tree.

Tree species name

Does your tree have common names? What are they?

I am surprised that

What do you wonder about your tree?
Visiting your tree
Date: 

How has your tree changed?

How has your tree stayed the same?
Visiting your tree

Date: ________________

How has your tree changed?

How has your tree stayed the same?
Visiting your tree
Date: ____________________
  How has your tree *changed*?

How has your tree *stayed the same*?
Visiting your tree
Date: ____________________
How has your tree changed?

How has your tree stayed the same?
This journal was designed to accompany Project Learning Tree (PLT) lessons #21 “Adopt-a-Tree,” #45 Poet-Tree,” #22 “Trees as Habitats,” #67 “How Big is Your Tree?” and #68 “Name That Tree.”