Trees
and
Weather
(3rd Edition)
What is the weather today?

Teacher: Sunny, partly cloudy, overcast, rainy, snowy.

Note: Could do monthly entry to note changes.
Today is rainy and cloudy. I feel rain on my face.

or

This is rainy
What do you know about trees? plants

* Students draw a tree used as a pre-assessment. Will do 3x a year to assess growth.
A tree has leaves.
What did you learn about our schoolyard trees?

Teach
- Trees are plants
- Trunk is a big stem
- 4 main parts of a tree
  - trunk
  - branches - twigs
  - leaves
  - roots

Materials: tree rounds posters

Senses

1-1 cont.
I observed our tree has leaves and branch. or

I observed lvs. or

I observed an ant on the tree.
1-2

What are the parts of a tree?

Choose one part to illustrate from Tree parts cards

brances

or do whole tree.
I observed a tree has lots of branches.

or

I noticed the leaves grow on the branches.

or

I noticed lv on br.
What shape are trees?

Day 1
Tree puzzle investigate

Day 2
(whole class)

<table>
<thead>
<tr>
<th></th>
<th>trunk</th>
<th>leaves</th>
<th>tall</th>
</tr>
</thead>
<tbody>
<tr>
<td>apple tree</td>
<td>fat</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Palm tree</td>
<td>skinny</td>
<td>leaves up</td>
<td>high</td>
</tr>
</tbody>
</table>

Day 3
Shape is a property of a tree

Tree silhouette Memory Game
I observed trees have many shapes. Some are tall but others are not tall. I wonder why that happens.

or

It reminds me . . .
Which trees have similar shapes?

Tm 8 (Tree silhouette cards)

Center activity

Sort trees into groups by shape and glue on large paper. Then glue in notebook.

Turn talk - class discussion of how sorted.
Whole group discussion
What can we find out about our adopted tree?

Fall

Colorful leaves

- Take pictures to glue in notebook
- Take circumference w/string
- Make a foldout seasonal chart

*Reading + Habitat cards Landform
Fall
I adopted a maple tree. I notice it has red leaves in the Fall that are falling on the ground. Ako I saw a bird's nest in the branches.

Winter

Spring
What can we observe about leaves?

- Collect 6 different leaves
- Work in pairs sorting
- Pick one way to illustrate a sorting

* Parts of tree properties
  - Size
  - Shape
  - Edge (smooth, toothed, lobed)
  - Tip shape (rounded or pointed)
  - Texture
I observed I can sort my leaves in lots of ways. My data shows how I sorted them by pointy tips. I wonder....
What shapes are leaves?

(Felt leaves)
Leaf-sorting mats w/real leaves

- spear
- oral
- heart
- line
- triangle
- paddle

Felt shape
Real leaf
I observed my leaf shape is a heart. I know this because my leaf fit inside the heart. It surprised me that some leaves can be more than one shape.
How are leaves different?

Paste TM 18 picture for comparison

wide lobes
My leaf is different because it is wider and has a lobed shape. I wonder what tree it came from.
How are leaf edges different?

Center activity with leaf silhouette games.

2-5 Leaf books
Center Activity
Read Our Very Own Tree for review
What do **fall** trees **look** like?

Active Outdoor Session →

**Things Found under Trees**

<table>
<thead>
<tr>
<th>Seeds</th>
<th>Leaves</th>
<th>Twigs</th>
<th>Other</th>
<th>Not from a tree</th>
</tr>
</thead>
</table>

Whole group chart on floor!
4-2
Active Center Investigation of seeds in fruit
Reading: My Apple Tree

4-3 Outdoor Session of visit to adopted tree.
(Mark a twig for future investigations)
(changes in seasons)
4-4 What do Winter Trees Look like?

Evergreen Outdoor Hunt
(Need evergreen samples laminated for reference cards)

Class chart of evergreen leaf types.

- leaves wide and flat
- leaves long and pointed
- tiny, pointy leaves → scales

Reading "Orange Trees"
Examine and Investigate winter twigs.

Vocabulary: bud scar growth ring

bud twig growth ring leafscar
46 What do winter trees look like?

Return to adopted tree for winter observation.

Winter

- Use picture for illustration to glue in.

* Be sure to note how evergreen trees are still green.
Winter

I observed my adopted tree in winter. I noticed it has no leaves and bare branches. Also, I observed some twigs on the ground next to the trunk. It reminds me of...
How can we measure the air temperature?

- how much, big?
- how hot or cold

Glue in outline (color coded)

TM 24
or (see TM NMaster in Air + Weather)

* One month/week - Keep a temperature bar graph to show changes.
We measure air temperature with a thermometer. When the red lines moves up, the air is warmer but when the red line moves down, the air is colder. Today is a cool day because my evidence is the red line is in the yellow zone.

or

red up = hot
red down = cold
Today is cool.
What does a wind sock show us about the wind? 

wind sock

→

direction

or

Key

0 = no wind
1 = some wind
2 = lots of wind

(Class Chart)

<table>
<thead>
<tr>
<th>M</th>
<th>T</th>
<th>W</th>
<th>Th</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>
A wind sock tells me (direction) what way the wind is blowing. My evidence is
I watched my wind sock outside and the streamers were blowing like the flag.

or

A wind sock tells me how hard the wind is blowing. My evidence is the streamers stay straight sometimes and sometimes wave like a flag.

Reading "Weather"
4-7 What do spring trees look like?

**Forced Twigs - Center Observation**

<table>
<thead>
<tr>
<th>Winter Twigs</th>
<th>Spring Twigs</th>
</tr>
</thead>
<tbody>
<tr>
<td>little buds</td>
<td>fat buds</td>
</tr>
<tr>
<td>brown</td>
<td>green</td>
</tr>
<tr>
<td>no blossoms</td>
<td>blossoms</td>
</tr>
<tr>
<td>1 twig</td>
<td>new twigs off old one</td>
</tr>
</tbody>
</table>

**Notebook:**

- [Diagram of a tree branch with labels such as blossom, swollen buds, and new twig]
First I noticed little buds on the twig in winter. Now I notice fat swollen buds that are beginning to open. or

In winter, I noticed one twig. In spring, I noticed a new little twig coming out from the old one.
4-8 What does your [bark] look like?

Active Outdoor Session

Bark Hunt (Pictures available for hunt)

Students do rubbings to include in notebook.
My bark rubbing looks like a lot of circles twirling together. It surprised me how bark looks so different on trees.
What do Spring trees look like?

Return to adopted tree for Spring observation.

- Use picture to glue in.
- Take circumference.

Season - Plants

Buds

Twigs

Leaves

Trunk

Bark
I observed my adopted tree in Spring. I observed lots of buds on the branches and new twigs. Also, I noticed new leaves on my tree.

I wonder...
It surprised me that the circumference of the trunk was fatter.

Reading Research
Re-read My Apple Tree
Read Maple Trees
1-6

Tree Planting Ceremony