Outdoor Learning Opportunities:

Winter Tree Identification

Standards: M.MD.PS.1 S.LS.PS.1

Materials:

- Winter Tree Identification sheet or field guide.
- A place where there are trees
- Paper
- Crayons to make rubbings

Vocabulary:

- Terminal & Lateral Buds
- Twigs
- Catkins
- Bark
- Alternate branching
- Opposite branching
- Dormant

Trees go dormant in the winter. Deciduous trees drop their leaves in the fall. This reduces the amount of water they need, especially because water freezes in winter. Identifying trees in winter is done in a different way, since there are no leaves to help identify the trees. Several parts of the tree are used for identification. Getting to know a tree's characteristics (parts) throughout the year (in all seasons) will help identify them in winter. These include the tree's bark, type of branching (alternate or opposite) and details of their twigs and buds. For young children, getting to know a tree's characteristics helps them to develop keen observation skills and over time they will be able to recognize specific tree types.

Take the children outside where there are several trees. Have them inspect the trees' bark (color & texture) and name as many parts of the tree as they can. Does it have alternate or opposite branching? Alternate means that the twigs alternate direction along the stem. Opposite means the twigs are paired on either side. The most common trees that are opposite branching are maple, ash, and dogwood (MAD). The children can show these two types of branching with their arms (straight out to either side for opposite, one up and one down for alternate). Other characteristics to look for are terminal buds (the bud at the tip of the twig) as these are quite different depending on the type of tree. And lateral buds (buds on each side of the branch). These can be identified with a twig guide.



Another characteristic to look for are catkins and seeds. These will vary by the type of tree, as well. Getting to know the trees' characteristics will enable children to discriminate more closely and even if they can't identify them correctly, over time they will begin to know the trees as individual types and be more aware of the trees' specific details.

Extension: Have the children do bark rubbings of a tree by placing paper on the bark and using a large crayon on the paper to get a print of the bark.

Extension 2: Play "Meet a Tree" activity. In pairs children take turns showing each other a tree. The child being shown the tree closes their eyes as the other child leads them to the tree. The child with eyes closed inspects the tree by touching the bark and any branches nearby. After taking the child away from the tree, they open their eyes and try to find the tree that they were touching.

Guiding Questions:

- What happens to trees in the winter time?
- What are the different parts of a tree?
- How can you identify trees when there are no leaves on their branches? Every type of tree has its own unique bark, branching, and twigs.