## February - Week 2 *Popping Trees Moon*

**On sunny February days trees are transporting sap** up through their trunks and this sap returns to the roots in the evenings. Even on cold days sap is moved, but on clear nights the temperature can sometimes drop so fast and it can get so cold that the sap does not reach the roots. Its movement is slowed down and it can become frozen in place in the "elevator shaft" of transport cells. When the sap freezes on these nights it expands, putting pressure on the tree's cells in the trunk expanding the cells to a point at which they may crack open creating a popping sound. Evidence of this popping is often observed as a vertical crack on the southwest side of a tree. Trees with dark gray bark are more prone to this phenomenon as their trunks absorb heat readily from the February sun.

This week, go on a walk to observe trees and look for frost cracks. When you find one, or several, examine them. Notice the length, width, texture of the crack or scar. Does it look like it is new or that it occurred in years past? Create a labeled drawing in your journal. Possibly include a rubbing of the bark along the edges of the frost crack. Do you know what species you're finding the cracks on?
If you do not find trees with frost cracks, continue your search and observe the colors and textures of the tree trunks in your neighborhood or local forest. Document your discoveries with words, pictures, and rubbings. These observations may help you identify the trees and guide your search for frost cracks in the days, weeks, and years to follow.

During this week and throughout the month, when the conditions are ripe for "popping," listen for the sounds of popping in the evenings and through the night. Visit the trees again during the growing season and notice how the trees growth and leafy canopy is impacted by this unfortunate occurrence.

Frost crack in tree bark