

# Trail Technique for Oak Woodlands:

## How old is this Twig?

This activity helps kids learn about how plants grow through their own observation and discovery. It works especially well on buckeye trees in the fall, but other deciduous trees work as well (e.g. black oak or valley oak).

### Twig anatomy vocabulary

**Bud** – a little bump on a stem or twig where new growth happens. Buds can turn into new leaves, new stems, or even flowers.

There are two kinds of buds on a twig

**Terminal bud** - at the tip (only one per twig). Only one terminal bud is formed each year. Terminal buds result in new growth that makes a twig longer

**Lateral bud** - on the sides (several to many per twig).

Lateral buds allow side branches to form.

**Bud scales** – small structures that protect unopened buds, especially over the winter.

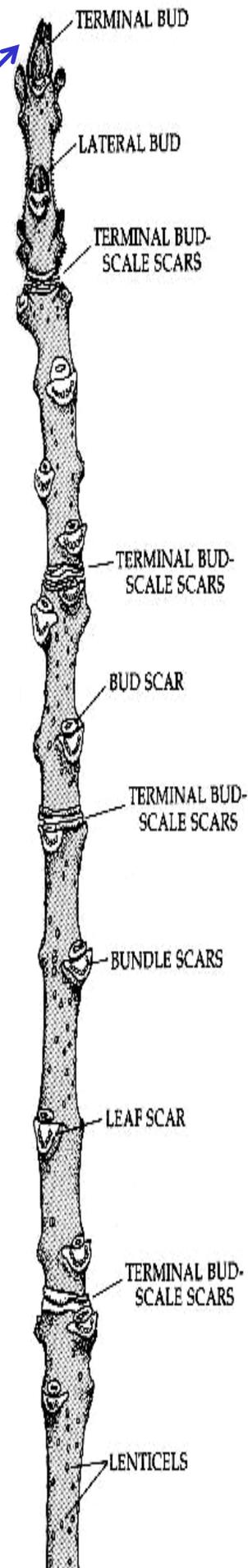
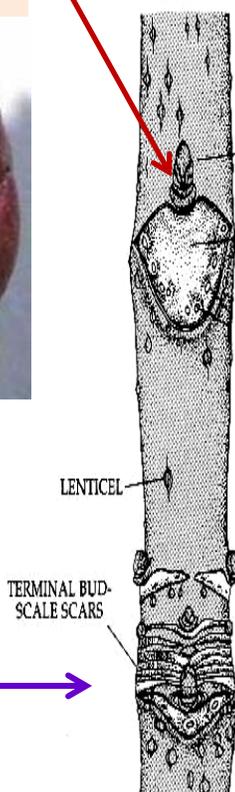
### What are all those bumps and scars?

**Bud scar** – small scar left on a twig after a bud opens and scales fall off. When a lateral bud opens, the bud scale scars are only on one side of a twig.

**Leaf scar** – scar left when a leaf falls off.

**Lenticels** – are small openings in the bark that allow gas exchange with the atmosphere (i.e. they allow the tree to “breath.”). These are not bud scale scars.

**Terminal bud scale scar** - When a terminal bud opens, it leaves scars *all around the twig* like threads on a pipe.



### How do I tell how old a twig is?

By counting the **terminal bud scale scars**! Since each twig makes only one terminal bud per year, the number of terminal bud scale scars indicates how old it is. Look for the rings that go all the way around the twig like pipe threads! **How old is the twig on the right? (FIVE YEARS)**

The fine print: Revised by Jeanne Wirka for ACR Education. July 2013  
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