

## Standards-Based Lesson Template

<b>Submission Date</b>	2014-07-22 00:12:28
<b>Teacher:</b>	Heather Nolan
<b>Class:</b>	Environmental Horticulture
<b>Lesson/Unit Title:</b>	The process of T budding
<b>Abstract/summary of lesson:</b>	Student will learn how to bud using the T budding method, then be asked to preform this practice on a peach tree..
<b>Students will know...</b>	<ol style="list-style-type: none"><li>1. What tools are required to preform a successful T bud.</li><li>2. Why T budding is used?</li><li>3. How to evaluate what makes a successful bud union.</li></ol>
<b>Students will be able...</b>	<ol style="list-style-type: none"><li>1. Execute a T bud on a living tree.</li><li>2. Evaluate and examine a peers T budding process.</li><li>3. Describe the T budding process in a written description or narrative description.</li></ol>
<b>Standards/Skills addressed</b>	<p>F3.1 Explain the different forms of sexual and asexual plant reproduction.</p> <p>F3.2 Demonstrate the various techniques for successful plant propagation.</p>
<b>Performance tasks/projects:</b>	In 18 to 21 days following this propagation process the student will evaluate the T bud they executed and see if the new growth has begun to push. At this point they will remove any old vegetation from the existing peach variety. At this point they will be given credit for their budding practical.
<b>Test and quiz questions or essay prompts:</b>	<ol style="list-style-type: none"><li>1. How is a T bud executed?</li><li>2. Why is T budding used in the nursery industry?</li></ol>
<b>Other evidence to be used (e.g., observations, evaluation of work samples, discussion):</b>	Teacher will demonstrate how to preform a T bud both on paper and using a live plant sample.
<b>Student self-assessments:</b>	Students will respond in writing what things would cause a bud union to not be successful.
<b>Objectives</b>	<ol style="list-style-type: none"><li>1. What tools are required to preform a successful T bud.</li><li>2. Why T budding is used?</li><li>3. How to evaluate what makes a successful bud union.</li><li>4. Execute a T bud on a living tree.</li><li>5. Evaluate and examine a peers T budding process.</li><li>6. Describe the T budding process in a written description or narrative description.</li></ol>
<b>Motivation:</b>	How many of you have ever eaten a piece of fruit such as a peach and liked it so much you wanted to keep the seed/ pit and plant it in the ground and grow a tree for yourself? Did you do it? Was it successful? There is a reason why it likely was not successful.

**Presentation:**

I will present the basics of budding through lecture.  
Why budding is used in the nursery industry?  
The different types of budding.  
Tools needed for budding.  
Discussion of what causes a bud union to fail?  
Following lecture I will provide students with an illustration of T budding on paper.  
After sharing the illustration I will proceed to demonstrate how to preform a T bud on a peach tree.

**Application/Activities:**

I will provide students with scrap pieces of vegetation and have student practice making t cuts into the rootstock and removing buds from scrap budwood.  
Then students will practice slipping the buds onto the rootstock and tying the buds into place.  
After students feel comfortable with their practice they will then apply their skill they learned onto a seedling with viable buds.

**Materials needed:**

Illustration of T budding.  
Sharp knives  
Rubber bands  
Scrap 1/4 to 1/2 inch wood  
Scrap budwood  
Peach seedlings  
Viable budwood.

**Assessment/Evaluation:**

Students will be assessed by if their buds were successful and beginning to push new vegetative growth.

**Closure/Reflection:**

Ask for students to share out why we use budding in the nursery industry  
"Give one Get one" What would cause a bud union to fail?  
Students will complete a ticket out the door by 1. Describing the T budding process.