# Plant Classification Activity

**Created by:** Karen Williams, Diane Wilson  
**Time Required:** Four to six 30 min class periods  
Teacher prep time: 30 minutes to gather plant material  
**Subject:** Science  
**Grade Level:** 3rd & 5th

<table>
<thead>
<tr>
<th>Overview</th>
<th>5th and 3rd grade classes will learn how to identify plants by groups: grasses, forbs, shrubs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal(s) &amp; Objective(s)</td>
<td>1. Students in the 5th grade class will teach the 3rd grade class how to identify plants according to groups: grasses, forbs, and shrubs.</td>
</tr>
</tbody>
</table>
| Materials | 1. Variety of Collected Plants  
2. Plant presses  
3. Copies of Plant Identification Guide |
| Teaching Activities:  
Instructional Approaches/Strategies | Procedures  
1. Teach the 5th grade students characteristics of grasses, forbs and shrubs. Give them samples obtained by instructor to classify, label, and press. Students will work in small groups.  
2. When students feel comfortable and are able to independently identify samples, join the 3rd grade class. 5th graders will bring the new samples they have gathered. In one or more sessions the 5th graders will teach the 3rd grade how to identify grasses, forbs, and shrubs.  
*Optional:* Arrange a field trip to a meadow (ex: Meadow at Grangemont, Orofino Idaho) to identify at least 2 kinds of each group. Press and label each sample.  
If possible, have a guest speaker accompany the classes on the field trip to explain how the meadow has changed over the last half century |
| Closure | 5th grade- Have students write a short summary of what they learned and what their favorite part of the activity was.  
3rd grade- Have a class discussion on about plants and what they learned from the 5th graders. |
| Assessment: | Assess how much both 3rd and 5th graders learned with a discussion after the combined activity. |

## Background:

Plant Classification 1
Instructors must be able to distinguish between grasses, forbs and shrubs. The following sites will be helpful in learning to identify each group.

www.idrange.org
http://www.cnr.uidaho.edu/what-is-range/
http://www.cnr.uidaho.edu/what-is-range/identify.htm

*Note:* Each student will need a plant press that can easily be made from pegboard. Cut the sheet of pegboard into 4”x6” pieces. Put the presses together by putting several pieces of newspaper or newsprint between two pieces of pegboard. Hold the entire press together with two wide rubber bands. Cost of the pegboard will be about $10. It will take about 3 hours to put the boards together. An additional option would be to have all materials ready and let the 5th graders assemble the presses.
<table>
<thead>
<tr>
<th></th>
<th>GRASSES</th>
<th>GRASS-LIKE</th>
<th>FORBS</th>
<th>SHRUBS &amp; TREES</th>
</tr>
</thead>
<tbody>
<tr>
<td>STEMS</td>
<td>Jointed with nodes, round</td>
<td>Not jointed, irregular shape</td>
<td>Fleshy or pithy</td>
<td>Woody with growth rings</td>
</tr>
<tr>
<td></td>
<td>Hollow</td>
<td>Mostly Solid</td>
<td>Mostly Solid</td>
<td>Solid</td>
</tr>
<tr>
<td>LEAVES</td>
<td>Parallel Veined</td>
<td>Not Veined</td>
<td>Simple</td>
<td>Compound</td>
</tr>
<tr>
<td></td>
<td>on two sides</td>
<td>on two</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>or three</td>
<td>or three</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FLOWERS</td>
<td>Small, Greenish</td>
<td>Large, Colored</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stigma</td>
<td>Stigma</td>
<td>Sepals</td>
<td>Simple</td>
</tr>
<tr>
<td></td>
<td>Stamen</td>
<td>Stamens</td>
<td>Petals</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fruit</td>
<td></td>
<td>Ray flowers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ovary</td>
<td>Bracts</td>
<td>Flowers (no petals)</td>
<td></td>
</tr>
</tbody>
</table>

Leaf Margins (what the edges of the leaves look like)

- Entire
- Undulate
- Crenate
- Serrate
- Double-Serrate
- Dentate
- Denticulate
- Ciliate
- Incised
- Lacerate
- Lacinate
- Lobed
- Cleft
- Parted
- Pinnatifid
- Palmatifid
- Crispate
Leaf Shapes (what the shape of the leaf is)

- Obovate
- Ovate
- Peltate
- Perfoliate
- Reniform
- Subulate
- Spathulate

Leaf Arrangement (how the leaves are arranged on the stem)

- Opposite
- Alternate
- Whorled
- Imbricate
- Fasicled