

Classification of Aquatic Plants



Objective: Students will become familiar with aquatic plants and gain an understanding of how plants are classified, based on plant morphology and other characteristics.

Materials: Use (at least) one of the following:
Aquatic Plant Identification Decks or flash card sets:
http://plants.ifas.ufl.edu/education/regional_map.html

- Or plants from the following web pages:
<http://plants.ifas.ufl.edu/guide/natplant.html>
<http://plants.ifas.ufl.edu/guide/fillepl.html>
<http://plants.ifas.ufl.edu/guide/emepla.html>
<http://plants.ifas.ufl.edu/guide/subpla.html>
- Plant Parts Page from website (pdf file)
- K-W-L table (transparency)

Activity:

1. Using the K-W-L transparency, ask students: What are some common characteristics of all aquatic plants? Take students answers and place in the K column (what we already know.)

2. Under the W-column (“what we need to know”) of the overhead ask the following question and write student responses. Examples:

*What else do we need to know about aquatic plants in Florida?
What is important to learn about aquatic plants in Florida?*

3. After filling out the K & W column of table, separate the students into groups. Give each group an aquatic plant identification aid (flash cards, pages from website, etc.).

4. Using the aquatic plant identification deck, have students separate the cards into two main categories of native or non-native plants.

5. Working within each category, students will now separate the aquatic plants by their characteristic growth habits or appearance (emersed, submersed, or free-floating/floating-leaved).

6. Taking each sub-category from above, students will now separate plants further by leaf type or shape. Students will choose their own criteria (examples are: smooth, rough, velvety, veins, oval, strap shaped, hairy, rounded, stiff, flexible, shape and size).



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7. Using each of these sub-categories, students will now separate plants by other criteria. Students will choose their own criteria (examples: stem type, flowers, etc)

For an example of how scientists identify plants, using similar classification techniques, check out this website from our National Park Service:

<http://www.nps.gov/goga/parklabs/library/plantkey.htm>

Discussion Questions:

- What criteria did you use for classifying and why?
- How many different groups did you have in the end?
- Choose another team and compare your classification with theirs. What is similar and what is different? Why?
- Would you change your classification system after comparing yours with the other teams in your class?
- What is the difference between emersed, submersed and free-floating/floating- leaved plants?

