Leaf ID

Summary

Students will use a dichotomous key to identify leaves from 9 different trees found in Utah.

Time Frame

2 class periods of 30 minutes each

Group Size

Pairs

Life Skills

Thinking & Reasoning

Background for Teachers

Teachers should have a general knowledge of leaf terminology including leaf anatomy (i.e. stem, stipule, petiole), leaf types (i.e. simple, compound, needle-like, scale-like), leaf arrangements (i.e. opposite or alternate), and leaf margins (i.e. serrate, lobed, entire).

Student Prior Knowledge

Students should have a general knowledge of leaf terminology (see "Background for Teachers" above).

Intended Learning Outcomes

Manifest Scientific Attitudes and Interests

Instructional Procedures

Print copies of leaf pictures and leaf keys (see attachments in "Materials"). Make enough copies so students can work in pairs.
Number leaf pictures 1-9.
Teach students the terms they need to know in order to identify the leaves (see attached ppt).
Give each pair of students a packet which includes leaf pictures and a leaf key.
Students should use dichotomous key to identify leaves. Have students record leaf names and numbers on a separate sheet of paper.

Strategies for Diverse Learners

Some students may benefit from sketching and labeling the parts of the plants rather than simply taking notes.
Teachers may want to increase or decrease the number of plant parts presented to students.

Extensions

This lesson could lead to a discussion about native vs. invasive species. After students have identified leaves, they can do some research to determine which tree species are native to Utah and which are invasive. Then students can debate whether particular invasive species are harmful or beneficial to an ecosystem.

Assessment Plan

Student answer sheets can be graded to assess their knowledge of leaf terminology and determine their ability to use a dichotomous key.
Students will create an infographic that highlights a native Utah plant. The infographic should include how the plant can be identified (using the information gained from the lesson) as well as other facts gleaned form sources outside of the lesson

Bibliography

"A Guide to the Trees of Utah and the Intermountain West" by Michael Kuhns

Authors

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