

Name That Tree!

GENERAL INFORMATION

THEME

Anyone can learn how to classify trees using a dichotomous key.

SUB THEMES

1. Classification is an important tool we have in our everyday lives.
2. Classifying plants and animals into groups helps us understand them better.

VOCABULARY

Classification, taxonomy, kingdom, phylum, class, family, order, genus, species, dichotomous key, alternate leaf, simple leaf, compound leaf

ACTIVITY MATERIALS

Ten flags, dichotomous keys, data sheets, clipboards, pencils, leaf examples

METHODS

INTRODUCTION

Introduce yourself and state the title of the activity. Preview the main points and give students an idea of what they will be doing. Conversationally state the theme and sub themes. Ask: **What is classification and when do you use it?** Explain that it is the process of putting individual things into groups based on similarities). **How have you used classification today?** Describe how they used it getting ready for school. Their socks were together in the sock drawer, shirts were hanging together in the closet, shorts/pants were grouped in a drawer, and their shoes were together in the closet. Explain that it would be more difficult trying to use these clothes if they were all mixed up together and we did not know where to find them or how to use them. Plants and animals are classified in a similar way. Ask: **Why is it important to classify plants and animals** (because there are so many different living things, the only way to truly understand them is to group them)? Ask: **What are the major categories of classification, starting from general to specific** (Kingdom, Phylum, Class, Order, Family, Genus, Species)? An easy way to remember the classification system is Kings Playing Chess On Fat Green Stools).

When a new plant or animal is discovered, it is classified and named. This is called taxonomy. Explain that each new discovery is given a scientific name, which is formed from the last two

Teacher's Corner

Grade Level(s)

8th, 9th, and 10th

State Performance Indicators

SPI 0807

-5.1: Use a simple classification key to identify an unknown organism.

SPI 3210

-5.1: Compare and contrast the structural, functional, and behavioral adaptations of animals or plants found in different environments.

-5.2: Recognize the relationship between form and function in living things.

-5.6: Infer relatedness among different organisms using modern classification systems.

Name That Tree!

INTRODUCTION (cont.)

categories: genus and species. For example, a cougar has the scientific name *Puma concolor*. Ask: **Why does it need this weird name if it is already called a cougar?** Explain that common names change depending on where you are located. People in Florida call it a panther while people in California call it a mountain lion. Because, people all over the world speak different languages, we need to use one language to know what animal everyone is talking about. The language that is used for scientific names is Latin. Explain that one way to find the scientific name of something is to use a special key.

As a group, have students classify themselves according to hair style. Start by splitting the group into hair above the shoulders or below the shoulders. Ask the students how they can classify their hair style next using only two options each time (e.g. red and not red or black and not black or curly and straight). Continue until each student is by himself or herself.

Explain that the students just classified themselves using a dichotomous key. Each choice only has two possible options, which then directs them to another choice with only two possible options. The end result provides each individual with a specific identification.

ACTIVITY

Prior to the activity, pick out and flag 10 trees on the path which are included in the key. Once assembled, break the group up into teams of three each. Explain terms such as alternate, simple, and compound leaves using examples. Keeping the teams apart, have them use their data sheets and keys to identify the flagged trees. Each group should have the opportunity to identify each tree. Encourage them to examine leaves, bark, fruit, and anything else to make an accurate identification. Give the groups 20-30 minutes to complete their data sheets. Bring the group back together and review the activity by going to each tree and asking what species it is and how they came to that conclusion.

DISCUSSION

Review the following points: What is classification? Why is classification of plants and animals important? How are plants and animals classified? What are the seven categories of classification? What are the two parts of a scientific name? What is an example of a scientific name? What is a dichotomous key and how is it used?

WRAP-UP

Let the group know the activity is coming to an end. Conversationally review the theme and sub themes. Collect the datasheets. Give the teachers any of the materials that students can take home with them.

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- Activity developed by Allison Mains and updated by Melissa Squirlock; January.