



Exploring Different Ways of Classifying

Organization:

Title: Exploring Different Ways of Classifying

Summary: Students will explore classification processes from different knowledge systems using fallen leaves.

Inquiry Question: Inquiry Question 2. What is Biodiversity? Why is Biodiversity Important? How does Biodiversity Impact Ecosystem Resiliency?

Duration: 30 minutes

Learning Environment: Outdoor

Season: Fall

Materials:

- Different Ways of Classifying.pdf
- Classification Worksheet.pdf
- Quadrant Study Instructions.pdf
- Quadrant Study Worksheet.pdf

Curriculum Links:

Science and Technology: A1.1, A1.2, A1.4, A3.3, B1.3

Meta Data:

Content Type: Activity

Bundle: Gifts of the Earth, IK

Theme: Indigenous Knowledge Systems, Biodiversity Crisis,

Subject Area: Biology, Environmental Education, Science

Curriculum Focus: 7

Different Classification Systems:

Western Scientists and Indigenous groups have different classification systems. For instance, Indigenous groups have a less divisive more utilitarian approach to classification than Western scientists.

1. Teacher reviews worksheet made available in the **Different Ways of Classifying.pdf** and discusses with students the differences between Western and Indigenous classification systems.

2. In small groups students collect leaves (that have already fallen from trees) and in small groups develop their own classification system.



3. Teacher can continue to use worksheet in **Classification Worksheet.pdf** to guide this process. (Students fill in blanks in discussion with teacher).

4. Teacher leads discussion with class regarding whether their approach to classification was more aligned with the Indigenous approach or the Western Scientific approach.

Optional Extension Activity: Assessing Biodiversity

1. At ELEEC or local park students can use quadrat technique to evaluate the biodiversity of the two distinct areas.

2. Formative Assessment: Teacher can ask students to explain, based on their results, what area of land they evaluated would best withstand threats such as climate change, contaminants, invasive species etc. Students should be able to explain that areas with more biodiversity are more resilient.

3. Students can also be asked to classify the species found in each quadrat according to both Western and Indigenous classification systems.

4. Instructions for teachers on how to use quadrats with students can be found in **the Quadrant Study Instructions.pdf** and **Quadrant Study Worksheet.pdf**.