

SPHAGNUM ABSORPTION

Flagellate plants have existed on our planet for a long time (~300 million years) and include approximately 30,000 species of bryophytes, lycophytes, ferns, and gymnosperms. These plants offer some important clues on how plants evolve and adapt. There are several ways to classify flagellate plants based on their genetic and morphological traits but one of their most unique features is the absence of flowers.

This activity was developed as an informal learning experience for 2nd grade students who participated in an optional afterschool enrichment activity offered by the school.

GRADE LEVEL

- Elementary (K-2)

*You can find additional activities for this and other age groups on [GoFlag Voyager](#).

DURATION

- 45-60 minutes

LEARNING OBJECTIVES

- Discuss the importance of mosses to humankind
- Measure and compare water absorption

CURRICULAR CONNECTIONS

- Energy
- Ecosystem preservation
- Mathematics (measurement)
- Statistics (bar graph)
- History / anthropology
- Force (physics)

INTRODUCTION

- Bring a bag of Sphagnum moss and ask the children to guess what it is

- Explain that this is actually a plant called Sphagnum moss
- Show pictures of green and dry mosses to the children
- Invite the children to search for mosses on the school premises

MEASURING ACTIVITY

- Divide the children into groups of 3 or 4
- Give each group one of the following:
 - Sponge
 - Paper towel
 - Dry moss
 - One identical container filled with water
 - Measuring cup
- Instructions:
 - Use each type of material (sponge, paper towel, and dry moss) as a sponge, dip it in the water container and then empty that water in the measuring cup.
- Record how much water is transferred to the measuring cup when you use each type of material.
- Have each group make a bar graph that shows measurements from all 3 types of materials.

REFLECTION

- Which of these 3 materials can hold the most water?
- So, sphagnum moss can hold a lot of water.. What else can sphagnum moss be used for – diapers, bandaids, gauze pads, soil for plants such as blueberries, for decorations etc?

MATERIALS

- Dry moss
- Picture of dry and regular mosses
- Index cards
- Pencils
- Measuring cups
- Containers

Related Images



Costs: varies