



The Need for Weeds!

You can use monarchs to teach about many things! Stone Mountain Memorial Association (SMMA) uses the monarch butterfly to help students apply their knowledge in other contexts and to different disciplines. The activities relate a grade-level specific GPS to monarch life, habitat, or migration. Use this lesson as a post-trip activity following your 1st Grade Plants and/or Animals field trip.

GPS correlation: S.L.1. Students will investigate the characteristics and basic needs of plants and animals. b. Identify the basic needs of an animal. 1. Air, 2. Water, 3. Food, 4. Shelter

Preparation:

Read the background information. Print the worksheets, or make an overhead or display on your Interactive white board. Make copies for each student or pair of students.

Background information:

Each stage (egg, caterpillar, pupa, and adult) of the monarch butterfly life cycle has specific needs. In this lesson we will look at the needs of the monarch caterpillar that can be found in Georgia during the months of April, May, August, September or October and the adult monarch butterfly that can be found in Mexico during the months of November through March. (Note: Adult monarch butterflies can also be found in Georgia during the same months as the caterpillars.)

The basic needs of any animal are air, water, food, and shelter. For the monarch caterpillar, all of these needs are met on its host plant, the milkweed. A host plant is the plant on which the female butterfly lays her eggs so that later the caterpillar can eat the leaves. Not only does the leaf of the plant provide food for the caterpillar but the plant sap (fluid that carries water and nutrients around the plant) is the source of water. The milkweed plant also serves as the caterpillar's shelter from weather and predators.

Although their basic needs are the same, the caterpillar and adult butterfly do not always fulfill their needs in the same way, or with the same sources. Atmospheric air is the same source of air for both caterpillar and adult. They both take in air through spiracles (holes that are found on the sides of their bodies). The water and food source for the adult butterfly is the nectar that it drinks from a variety of flowers. This nectar, made up of mostly sugars, is sucked in through a special mouthpart (proboscis) that resembles a drinking straw. In Mexico, adult monarchs cluster together on oyamel fir trees in the mountains. These trees serve as their shelter from the weather.

Activity:

Read the background information to students. Read them the essential question so they understand the focus of the lesson. Hand out worksheets.



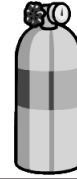
Essential Question:

Where does the monarch caterpillar find its basic needs in Georgia?

Draw a line from each basic need word (air, water, food and shelter) to the correct picture answer.

You have two picture choices for each word.

AIR



WATER



FOOD



SHELTER





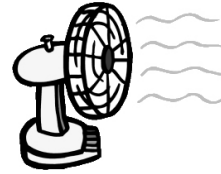
Essential Question:

Where does the monarch butterfly find its basic needs in Mexico?

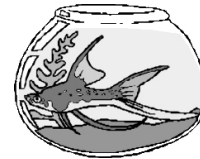
Draw a line from each basic need word (air, water, food and shelter) to the correct picture answer.

You have two picture choices for each word.

AIR



WATER



FOOD







SHELTER








Caterpillar in Georgia:

AIR	
WATER	
FOOD	
SHELTER	

Butterfly in Mexico:

AIR	
WATER	
FOOD	
SHELTER	