Science Writing EVERYTHING PLANTS

VOTE FOR ME

Scientists classify different types of plants based on their observable traits and physical characteristics to learn more about them. Without classification,

it would be very difficult to keep track of all the plants in the world. Right now, there is an estimated 390,900 plant species (groups of similar organisms) known.

Imagine that you just discovered a new plant. Write a campaign speech that describes the characteristics of the plant and what group you think it belongs to. Your goal is to convince us to vote for the plant to be placed in the group based on your speech.

I OBJECT!

In the fall, the leaves of many plants stop their food-making process. This causes them to lose their color and eventually shed their

leaves. However, there are some plants that do not lose their leaves any time of the year. Evergreen trees have needlelike leaves that have a waxy coating on them.

The evergreen tree was just arrested for not being like the deciduous trees (leaflosing trees). You must be the its needles. Provide facts and supporting

PRINTABLE & DIGITAL

WHAT'S INCLUDED

These concepts are covered:

- The interdependent relationship between plants and animals (thank you letter)
- Insecticide use (debate)
- Part of plants and the flow of materials (day in the life)
- Parts of plants and their functions (story)
- Seed dispersal (travel journal)
- Pollination (script)
- Adaptations of Saguaro cactus vs Sequoia trees (proposal)
- Plants' needs (argument)
- Role of leaves and their shapes/adaptations (letter to editor)
- Plants that do not photosynthesize (roleplay)
- The need for chloroplasts/photosynthesis (advice column/letter)
- Plant classification (campaign speech)
- Plant parts, roles, adaptations (award)
- Evergreen/Conifer trees and adaptations (attorney defense)
- Life cycle of a plant (diary/journal)
- Plant adaptations (interview)



I NEED YOU!

Plants and animals are dependent on each other for survival. For instance, a plant

relies on bees for pollination and animals for seed dispersal. Animals rely on plants for food and oxygen in the air.

Imagine being either a plant or an animal. Write a thank you letter to the other organism. Include important

details and examples that shows the interdependent relationship between the two living things. Be creative in your writing and use the proper letter format.

TO SPRAY OR NOT TO SPRAY

Some farmers use a spray (insecticides) to protect their plants from insects eating their leaves. Some sprays will only kill harmful insects and will leave the helpful insects alone. When the plants survive, the farmer can sell the crops to stores for people like us to eat. However, some sprays can soak into the soil and might wash into some local streams.

It's important for

farmers to protect their crops so they aren't damaged or die. Do you feel farmers should use insecticides? Express your opinion and support it with facts.

A DAY IN THE LIFE

Most people are familiar with carrots. It's a vegetable that are found in the produce

department of the store. It is also known as a taproot of a plant and has small tiny hairlike roots that come off it. It grows below ground and produces leaves above ground. The carrot is where food for the plant is stored.

Write about a day in your life as a carrot. Include important vocabulary that covers the parts of the plant and the flow of materials.

AT THE FOOD FACTORY

Plants have three major parts. These parts are the roots, the stem, and the leaves.

These parts work together for the survival of the plant. Each part has very important roles. One very important function each of these parts work toward is making food for the plant.

You are in a factory and overhear these three parts talking to one another about these roles. What does Rudy Root, Steven Stem, and Leah Leaf say about their parts and their important roles?

LET'S TAKE A TRIP

Seeds are dispersed in many ways. Some are light and float in the air when the wind blows. Others fall to the ground and either crack open or float away in water. Animals eat seeds or bury them in the ground for



later. Some seeds attach themselves to fur like Velcro. Even more excitingly, some seeds pop out of their pods and shoot through the airl

Today you are taking a trip as one of these

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seeds. Describe the plant you are leaving, your trip, and your landing. Include details and appropriate vocabulary.

BE A BEE

Bees are important in the pollination process. They land on flowers to get some nectar and in the process pick up pollen on their body parts. Generally, they fly off to another flower and spreading that pollen to it. This causes the plant to become fertilized and a seed begins to grow inside a fruit of the plant.

What do you think the life of the bee is like? Imagine being a bee and you're spreading pollen from flower to flower. Write a short script that describes your interaction with the flowers. Use appropriate science terms as you describe the pollination process.

I'M THE GREATEST!

The giant sequoia trees have been around for thousands of years. They have adaptations that help protect them from dangers in their environment such as thick,



The local plant society is trying to decide which of these really old, but large plants, have the best adaptations. Explain below which you feel should be voted as the best and why.

I'VE GOT ALL I NEED

Plants have needs. In order to survive, plants must have water, air, light, and nutrients from the soil. These items together help the plant grow and eventually reproduce.

Of all the materials plants get that are needed for growth, they mostly get what they need from the air and water. Support this argument with facts and details.



The Owl Teacher

DO YOU REALLY BE-LEAF THAT?

Leaves come in many different shapes and sizes. Some are long and pointy, while others are flat and smooth. Some leaves have tiny hairs to trap water, and some are spines on a cactus. Leaves are important to the plant because this is where the plant makes food. The shape of a leaf is also important in this process.

Would you expect a plant with large, flat leaves to live and survive in the desert? Write a letter to the editor of a newspaper explaining your reasoning with facts and details.

COLOR ME GREEN

Plants make food in their leaves by collecting sunlight and carbon dioxide (a gas in the air). When water, carbon dioxide, and sunlight are combined it creates a sugar for the plant and gives off oxygen. Chlorophyll is what makes the plants turn



green and is found in chloroplasts. This is what helps plants use energy from the sun to make food.

Could plants survive without chloroplasts and chlorophylls? Pretend you are responding to a

letter written to you from a plant asking this question because this plant was thinking about getting rid of these. You need to respond with a letter of advice that explains your reasoning using facts, important terminology, and supporting details.

I WANT TO BE DIFFERENT

Some plants have evolved other methods of surviving. For instance, some plants are parasitic, meaning they attach themselves to other plants and steal their nutrients and supplies. This is how the dodder plant and giant rafflesia survives. Some plants like to live on other plants' branches or stems so that they can be closer to the sunlight. These are called air plants. This is how the strangler fig and tank bromeliad survives. The Venus fly trap and sundew

plant get their nutrients by capturing small insects in their leaves. These are carnivorous plants.

Teacher

Teacher

m O If you could be one of these plants, which would you be and why? Use vocabulary terms and details. Consider comparing it to a photosynthesizing plant.

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YOU'VE WON!

Most plants have the same three main parts. These parts are the roots, the stem, and the leaves. These parts are very important for the plant. Each of them have important roles

that help the plant survive and they work together to help the plant get food. Some plants also have parts that help with reproduction like flowers, cones, and seeds.

Imagine that you are on a committee that is planning to give awards to famous plants. The awards that will be given out are best roots, best stem, best leaves, and so on. Your job is to decide which plant receives each award and why. Make sure to support your reasoning.

UNTIL I DIE

A life cycle is the series of changes a living thing goes through during its life. Most plants go through many changes over their lifetime, but they generally end up resembling their parents. This is because traits are passed on during reproduction.

Describe the life cycle of a plant as if he was journaling it. This would be from the start of the plant to its death. Remember to include important terms and details.



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> The evergreen tree was just arrested for not being like the deciduous trees (leaflosing trees). You must be the

evergreen's attorney and defend it for keeping its needles. Provide facts and supporting details.

LET ME TELL YOU

Plants need to adapt in their environment in order to survive. There are many adaptations. For instance, some plants close



the holes in their leaves during the day and only open them at night to conserve water. Other plans create a substance on their leaves to prevent insects from eating them.

Think of a plant that has some interesting adaptations. Imagine you are interviewing that plant. During your interview describe the plant's adaptations and why they are important.