Chemistry in Bloom:

Exploring the wonders of Spring

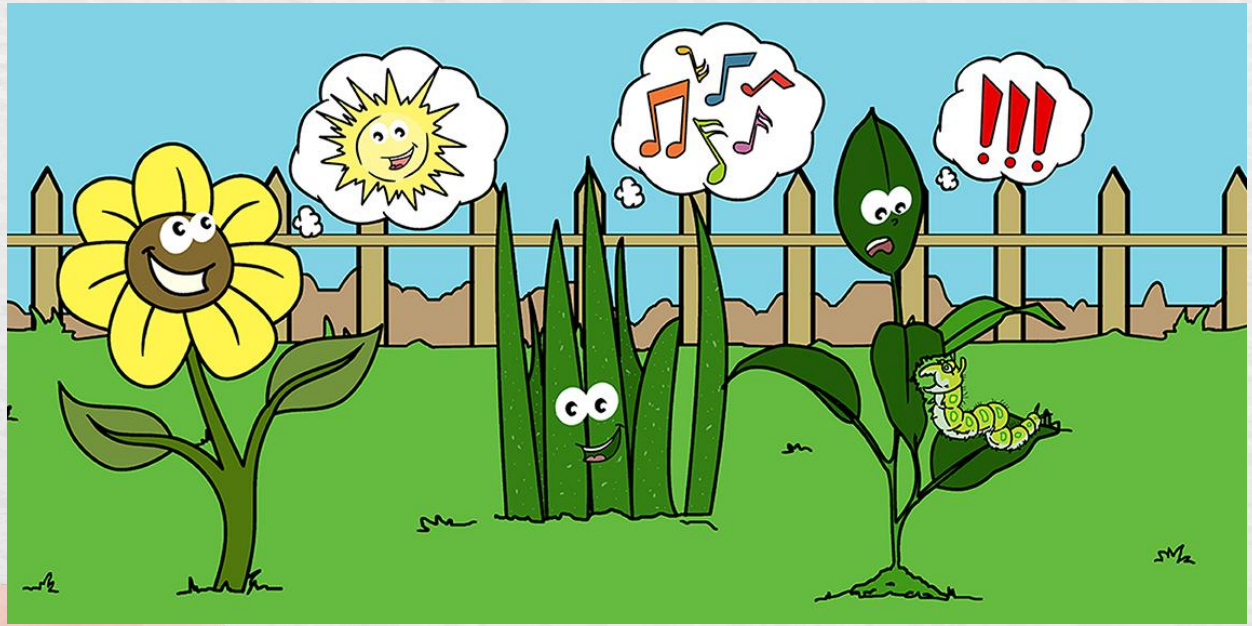
Warm Up-Facts of Spring

Answer

Plants communicate through chemical signals released into the air or soil.

Fun Question!

How do plants communicate with each other?

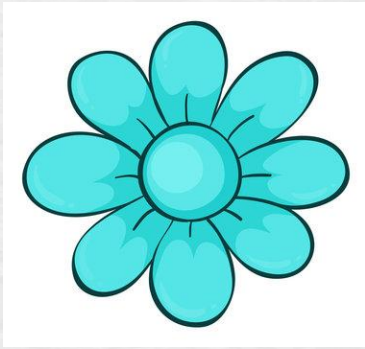


Introduction to Spring Chemistry

Spring awakens the world with a symphony of chemical reactions that mark the end of winter dormancy. Hormones such as auxins and gibberellins play a key role in stimulating plant growth and triggering the emergence of new leaves and flowers.

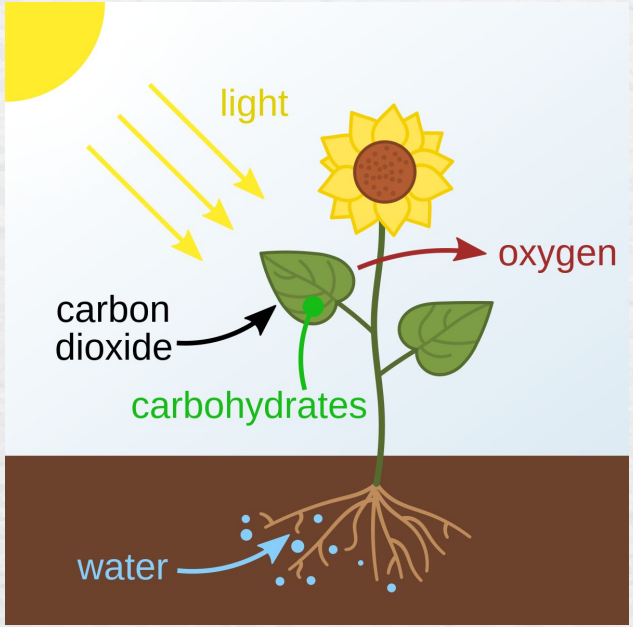
The Chemistry of Flower Pigments

Discover the intricate molecular structure behind the vibrant colors of spring flowers. Anthocyanins, flavonoids and carotenoids are just a few of the pigments that give flowers their stunning variety of colors. These pigments absorb specific wavelengths of light, resulting in the spectrum of colors observed in nature.



Photosynthesis: Nature's Green Alchemy

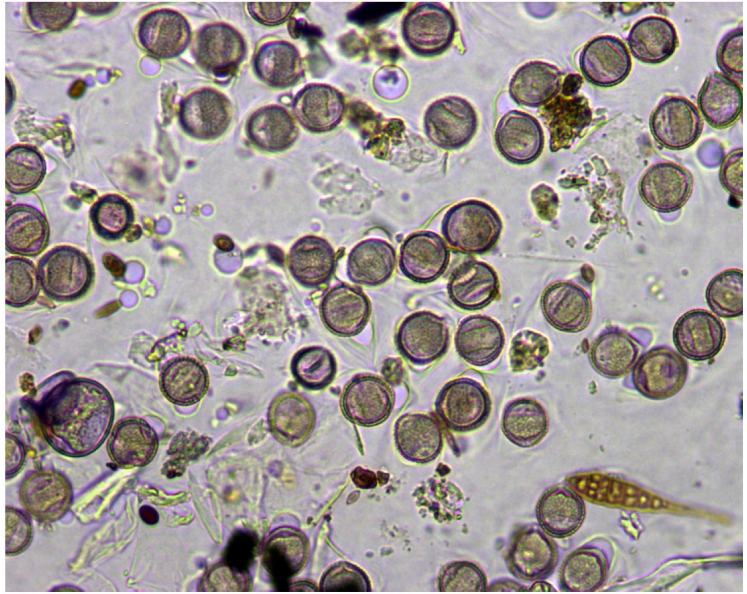
Chlorophyll, the green pigment in chloroplasts, captures light energy and drives the conversion of carbon dioxide and water into glucose and oxygen.



Video

Allergens in the Air: The Chemistry of Pollen

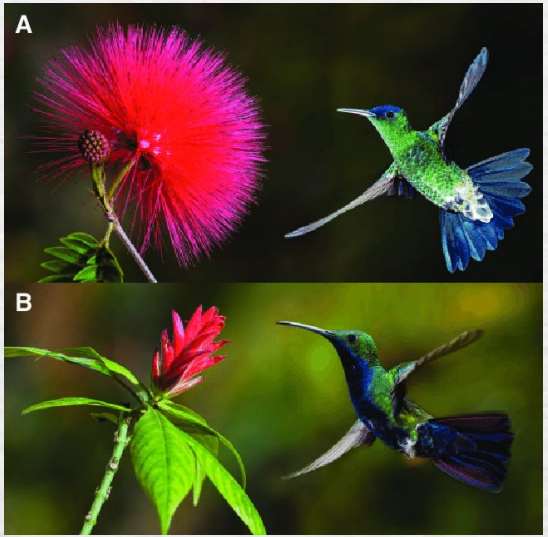
Uncover the chemical triggers behind spring allergies by looking at pollen grains through a microscope. Pollen is an important component of plant reproduction, and it contains proteins and glycoproteins that can elicit immune responses in sensitized individuals. It is well known that common allergenic proteins in pollen (e.g., pollen proteins and polymorphic pollen proteins) induce allergic reactions such as hay fever and allergic rhinitis.



Video

The Sweet Science of Nectar

As we unravel the chemistry behind attracting pollinators, you'll enter the world of floral scents and sweet nectar. Nectar is the sugary liquid secreted by flowers and is a great reward for pollinators such as bees, butterflies and hummingbirds. The composition of nectar varies depending on the plant species, with sugars such as sucrose, glucose and fructose predominating.



Cute Spring Animals Infographics

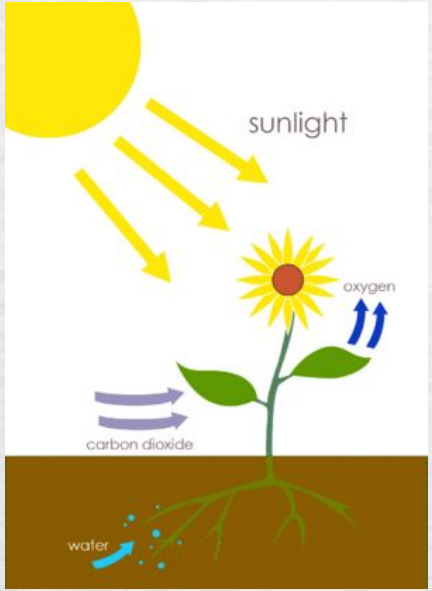
Animal A	
Saturn	Saturn is a gas giant with several rings
Mercury	Mercury is the closest planet to the Sun
Mars	Mars is actually a very cold place

Animal B	
Neptune	Neptune is far away from us
Venus	Venus is the second planet from the Sun
Jupiter	Jupiter is the biggest planet of them all

Ending Question:

Why is photosynthesis important for plants?

Hint:



Answer

Photosynthesis is how plants make their food using sunlight, water, and carbon dioxide.

You Did it!