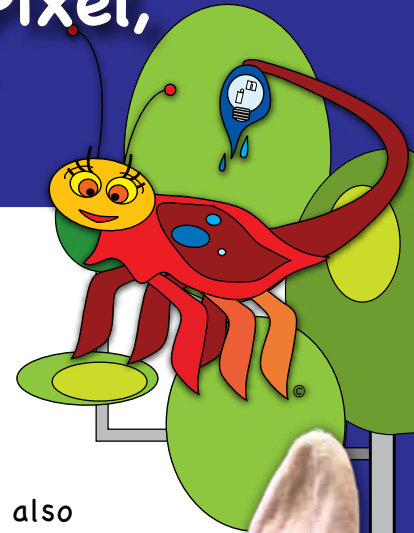




The Adventures of Pixel, the Stowaway



The World's Biggest, Stinkiest Flower

"Hi, everybody! Pixel, the Stowaway, here with a story about my latest adventure with my friend Al. We love to use our Image Smarts so you can see what we see on our adventures.



U. S. Botanic Gardens
Courtesy of Wikipedia

Al and I went to the botanic garden to see the world's biggest flower which is also pretty stinky! Botanic gardens are like zoos for plants, except there are no cages since plants don't move around and can't escape. The plants are in big, warm, humid, glass greenhouses that let in the light.

The world's biggest flower is called the titan arum. The word titan means giant, like the big ship *Titanic*. Al says the word was also used to name the Titans, a race of giants in Greek mythology. The titan arum grows only in the rainforests of Sumatra, an island that is part of the country of Indonesia.



Sumatra (in red)
Courtesy of Wikipedia

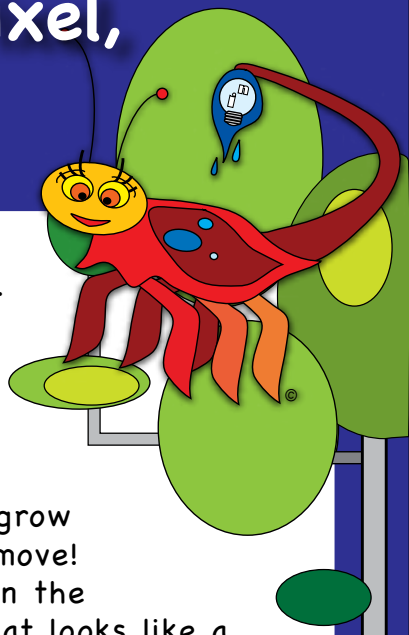
Titan arum is a strange flower. It grows right out of the ground and then disappears for years at a time. Titan arum plants grow from a large underground tuber, like a potato – except this tuber can weigh up to 200 pounds! Every season, a huge umbrella-like leaf appears, sometimes up to 20 feet tall and as thick as a person's thigh. The leaf can be 15 feet across – the size of a small tree! The leaf grows tall to capture the sunlight in the dense forest. The leaf

Courtesy of Al Giraldi





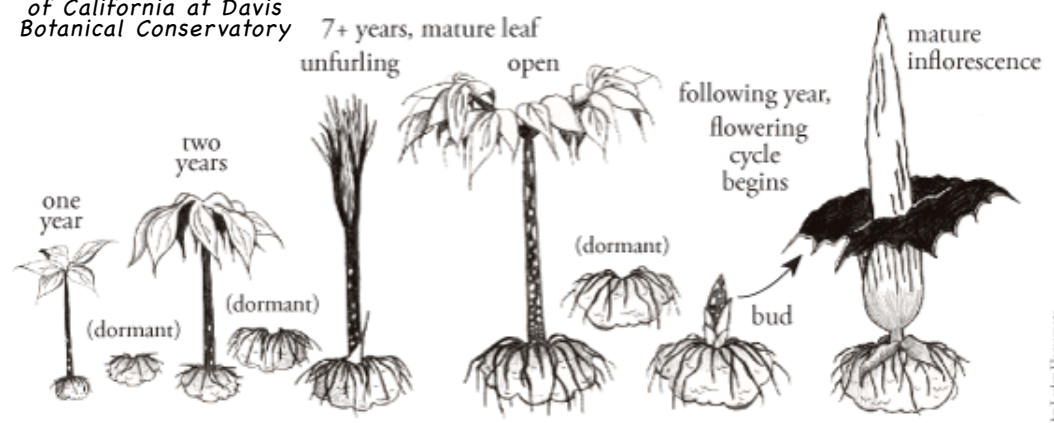
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turns the sunlight into energy, and then stores the energy in the underground tuber. The leaf lives for about a year and then dies. The tuber rests for a month or more and then makes another leaf. It keeps making big leaves for several years to store more and more energy in its tuber. Then when it has enough energy, the titan arum begins to flower.

As it begins to flower, a huge bud forms and begins to grow and grow – up to six inches a day. It grows so fast you can almost see it move! The bud forms the flower spike that is also called a spadix. When the spadix is five or six feet tall, a brightly colored skirt-like part that looks like a huge petal unfurls around the spadix and spreads out like an upside-down bell. The flower blooms and is ready to be pollinated – but only for a day or two. In the rainforest where titan arums grow naturally, they may be miles apart from

Courtesy of University of California at Davis Botanical Conservatory



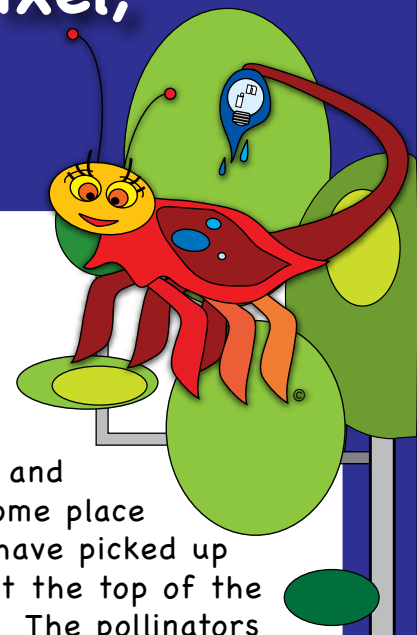
artwork by Lesley Hamamoto

each other. Since plants can't move around, they depend on helpers called pollinators to move their pollen to fertilize the flowers to make seeds. Plants use treats to attract helpers to their flowers. Some plants make sweet juice called nectar, and others share some of their nutritious pollen with their helpers. Lots of different plants use scents to attract pollinators. Botanists are scientists who use their Nature Smarts to observe and study plants. The botanist who first found the titan arum thought that maybe ELEPHANTS were the pollinators since such a big flower would probably need a big helper. But, guess what! The world's biggest flower really uses small insects as helpers to move the pollen.

I wondered how the titan arums could attract those really small insects. Al said



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titan arums attract their helpers by making an AWFUL smell! Some people say a titan arum smells like an old, dead, rotten fish. Maybe what smells AWFUL to you Kid-Bits smells really GOOD to the insects! This awful scent attracts tiny sweat bees, flies, and beetles because these insects like to eat or lay their eggs on something rotten. ***The titan arum tricks them with its awful smell!*** The insects crawl into the base of the giant spadix and walk over the tiny female florets at the bottom looking to find some place rotten to lay their eggs. They leave behind any pollen they may have picked up from other titan arums. Now the female florets are fertilized. At the top of the titan arum spadix are thousands of male, pollen producing florets. The pollinators crawl over the male florets, and the pollen sticks to their bodies. Then, off they fly to another titan arum to begin the process all over again. The fertilized florets then form seeds inside big red berries. Birds are attracted to the red berries and eat them and the seeds inside. The birds then fly off and spread the seeds in their excrement (poop) to other parts of the rainforest where new titan arum plants will grow from the seeds.

People have to help pollinate the titan arums that live in botanic gardens since the helper insects don't live there. People use small artist's paintbrushes to gather the sticky pollen from the male florets and transfer it the next day to female florets. 'Flower pollinator' or 'human bee' sounds like a pretty cool job to me!

Whenever a titan arum blooms inside a botanic garden, it causes a lot of excitement. Al and I had to wait in line for over an hour in Washington, DC! If you want to find out if there is a titan arum ready to bloom near where you live, check the botanic gardens near you.

Al and I took the picture on page 1 of the titan arum at the botanic garden. As you can see, it is really pretty, but you probably wouldn't want to have this stinky flower growing in your garden!"



Courtesy of Wikipedia

Sometimes people also use trickery to get a job done. What do you think of nature and humans using trickery to get a job done?