

Plants

Running Time: 26 Minutes

Nifty questions in this episode:

- What are the oldest living things on Earth?
- What makes all the oxygen and food we eat?
- What is fruit?

Awesome answers:

- Plants are the oldest living things on Earth.
- Plants make all the oxygen and the food we eat.
- Fruit is the part of the plant where seeds are stored.

Experiments shown on the video:

BREATHE DEEPLY

Objective: To produce oxygen from lettuce leaves.

- Put a piece of lettuce in an open quart jar. Fill the jar with water.
- Turn the jar upside-down into a dish.
- Fill the dish with water.
- Place in the sunlight for one day.
- Observe the bubbles that form. That's oxygen!

GREENERY

Objective: To demonstrate the existence of chlorophyll in leaves.

- Chop up a large number of green leaves.
- Place the chopped-up leaves in a water glass and pour nail-polish remover over the leaves to moisten them.
- Wrap a strip of coffee filter paper around a pencil. Allow the filter paper and pencil to dip into the leaves and nail-polish remover.
- The green color that climbs up the filter paper is chlorophyll.

More interesting stuff to do:

ONE POTATO, TWO POTATO

Objective: To observe the growth of leaves and roots in a plant.


- Choose a jar or beaker large enough to hold a sweet potato.
- Place the pointed end of a sweet potato in the jar and suspend it with toothpicks.
- Add water to the jar, enough to cover the bottom half of the sweet potato.
- Place the jar in a room with sunlight.
- Observe growth twice a week for a 4-week period.
- Continue the experiment until leaves and roots are visible. Record your data.

DRINK UP

Objective: To prove that the water in the atmosphere is absorbed from plants.

- Use a single-stemmed potted plant.
- After watering the plant, place a small plastic bag around the pot.
- Use tape to close the bag tightly around the plant's stem. This provides for water to be collected from the plant, not from the soil around the plant.
- Place the wrapped plant in a larger plastic bag. Seal the large bag with tape.
- Put the plant in an area that receives sunlight.
- Observe to see if any moisture collects on the large bag. Record your findings.
- Examine the plant again in 24 hours. Record your findings.
- The process by which plants give off water through their leaves is called transpiration. Would this add to the water cycle in our atmosphere? Explain.

Way Cool Scientist: Dr. Eloy Rodriguez, Professor of Plant Biology and Tropical Ecology

 closed-captioned



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