Food Factories

Try It Out

Pick a leaf or a blade of grass and hold it under the pocket microscope. Take a look. Do you see the grainy texture of the surface? Try another leaf.



What's Going On?

This grainy texture is a glimpse of tiny building blocks called cells, which all living things are made of. Plants are no exception, but plant cells are special because of a process you might have heard of: photosynthesis. And while you might have heard of it, have you ever really stopped to think about how amazing it is? Plants use the process of photosynthesis to create their own food. Each cell has a tiny food factory inside, taking light, carbon dioxide, and water, and making sugar to eat.



6CO₂ Carbon dioxide

 $_{60}^{\text{light}} \text{ C}_{6}\text{H}_{12}\text{O}_{6} + 60_{2}$ Sugar

Why Does It Matter?

One byproduct of this photosynthesis process (seen in the diagram above) is oxygen. The oxygen in the air we breath is supplied by plants. We wouldn't be here without them. Additionally, scientists are investigating ways to tweak the process and use artificial photosynthesis to produce other chemicals, such as liquid hydrogen to use for power.

Wonder While You Walk...

If plants make the oxygen we breathe, is breathing more efficient if you put your face in the grass? What else is in the air we breathe? Do you smell flowers? What about the smell of someone grilling?



We host rotating exhibits on science and technology. Ideas or suggestions? Let us know.