

Cohesion of water

- water molecules stick together & work together (ex: water going from ground to leaves.)

- adhesion - water sticks to other things (hydrogen bonds are sticky)

- 2 chemical reactions that are essential to life on Earth

- photosynthesis = happens in the organelle inside the leaf (chloroplast). You have to have sunlight (a form of energy). You need H_2O (water).

You need carbon dioxide (CO_2). The result is oxygen and glucose (sugar). The sugar is food for the plant. If cells don't have energy, they die.

- cellular respiration = process of converting sugar into energy for the cell. This process occurs in the mitochondria. Cells have hundreds of thousands of mitochondria. The process needs sugar & oxygen. It produces ATP, CO_2 (carbon dioxide) & water.

* these processes are the opposite of each other.