



## Challenger's Morning Science Segment:

August 14, 2017

**Topic:** Osmosis

**Build:** Grow a Gummy Bear

### Credit:

<https://ingeniumcanada.org/scitech/education/try-this-out-water-works-gummy-bear-osmosis.php>

### Materials Needed:

Gummy bears / room temperature water / bowl

**Growing your gummy bear:** First set aside at least 1 gummy bear in a safe dry place. This gummy bear will be your control or constant. It will represent the normal size of a gummy bear from your purchased pack. Next take another gummy bear and submerge it in a bowl of room temperature water. The water level needs to be completely covering the gummy bear. Leave this gummy bear in the water for 24 hours. Finally, after 24 hrs., remove the submerged gummy bear and set it next to your control gummy bear. Compare the sizes. How much did your gummy bear grow? Why did water make it grow so much?!

### The science:

[<https://ingeniumcanada.org/scitech/education/try-this-out-water-works-gummy-bear-osmosis.php>

<http://www.dictionary.com/browse/osmosis>]:

Growing a gummy bear is possible because of the process of osmosis. In this case, the "water molecules are moving from an area where there is a lot of water molecules to an area where there is less." The movement of the water is following the same principle of cell biology with plants. In osmosis, "the tendency of a fluid, usually water, to pass through a semipermeable membrane into a solution where the solvent concentration is higher, thus equalizing the concentrations of materials on either side of the membrane." The gummy bear grows because the water is equalizing on either side of the gummy bear membrane. So next time you want to bring REALLY big gummy bears to a party, just use osmosis!

**Upcoming at the Challenger Learning Center of Maine:** Challenger holds STEM camps all summer long for students entering grades K-8. Summer camps are filled with science, innovation, excitement, and fun! FMI- [www.astronaut.org](http://www.astronaut.org)