# How do plants cool our air?

### Explanatory video transcript

*(0:07)* How do plants help cool our air?

*(0:10)* Why do you think, on a hot summer day, in areas with more trees, the temperature tends to be lower?

*(0:17)* The trees provide shade and as you know, in the shade it is always cooler. But the shade of a tree is even cooler than the shade of a parasol. Why is that?

*(0:29)* To answer that question, let's see what happens when we cover a plant and a dry trunk with a plastic bag!

*(0:36)* We found that the plant released water inside the bag, …

*(0:45)* …while the dry trunk did not.

*(0:49)* Is water responsible for the lower temperatures? Let's confirm with the second experiment!

*(1:00)* The thermometer wrapped in wet cotton showed a lower temperature than the dry one.

*(1:10)* This is because when water goes from liquid to gas, it takes heat from the surroundings. This cools down the air around it.

*(1:20)* This explains why we sweat: to lower the temperature when the water on the surface of the skin evaporates. So, on a hot summer day, we get wet to cool off.

*(1:33)* As soil dries, water is transferred into the air as water vapor. That is evaporation.

*(1:42)* Plants actively release water, moving it out of their leaves into the drier air. That is transpiration.

*(1:51)* Combine the two and that’s evapotranspiration – the process through which water leaves plants and soil.

*(2:02)* So, the next time you are in a park and you feel that fresh air near the trees, remember that it’s the evapotranspiration of the plants that’s helping to keep the air fresh and pleasant!

*(2:15)* Let’s take care of our plants. They are wonderful and do so much for us!