

Photosynthesis video script

Without plants tapping the sun's energy and converting it into food, nothing could survive in the rainforest. Tall trees are giant sugar factories. Like little solar panels, leaves tilt through the day to the best position for catching light. They need water and lots of it – to make food. Rainforest trees can pump over 2000 litres of water a day back up into the canopy. That's a thousand plastic milk containers a day.

The green stuff in leaves is called chlorophyll. It's needed for photosynthesis - to convert sunlight, water, nutrients and carbon dioxide into sugary food.

The sugar – or captured energy – helps the plant to grow, repair damage and make flowers and seeds for reproduction.

Lucky for us one of the by-products of photosynthesis is oxygen, which we need to breathe.

If plants need light to make food, how do the ones survive in the gloom of the forest floor? Well they depend on catching sun flecks – tiny spots of light slipping through the canopy – even for just a few minutes at a time.

Their leaves are flat, long, wide and very dark green. There's a lot of chlorophyll in those leaves and they need it to survive down on the forest floor.

In the rainforest the competition to reach light is fierce. But because it happens slowly we can't see it. If we speed it up, it's like a full-scale battle. Plants pushing, clawing and strangling their way to the best position. The battle casualties are severed limbs, trunks choked by vines and logs lying rotting on the forest floor. The winner takes all the light! Who would have guessed that sunlight could be turned into food to support this whole amazing environment?