



A new type of bacteria creates oxygen

Transcript: Video clip from *Wonders of Life*, episode five.

SCIENCE PRESENTER BRIAN COX:

Every tree, every plant, every blade of grass on the planet, everything that carries out oxygenic photosynthesis today does it in exactly the same way. And the structures inside every leaf that do that look remarkably similar to cyanobacteria.

In other words, the descendants of one cyanobacterium that worked out for some reason how to couple those complex molecular machines together in some primordial ocean billions of years ago are still present on the Earth today.

The cyanobacteria changed the world, turning it green. And that had a wonderful consequence. With this new way of living, life released oxygen into the atmosphere of our planet for the first time and in doing so, over hundreds of millions of years, it eventually completely transformed the face of our home. And as the oxygen levels grew, the stage was set for the arrival of ever more complex creatures.