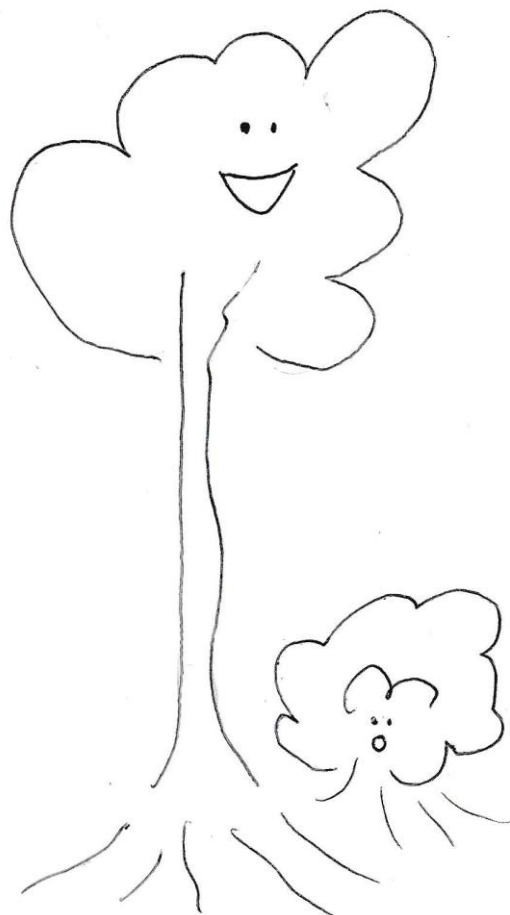


## Phytoplankton

Phytoplankton absorbs  $\text{CO}_2$  from the atmosphere through photosynthesis and converts it into organic compounds.

When phytoplankton dies, it sinks to the ground and the carbonic residues accumulate there (minerals or fossil fuels).

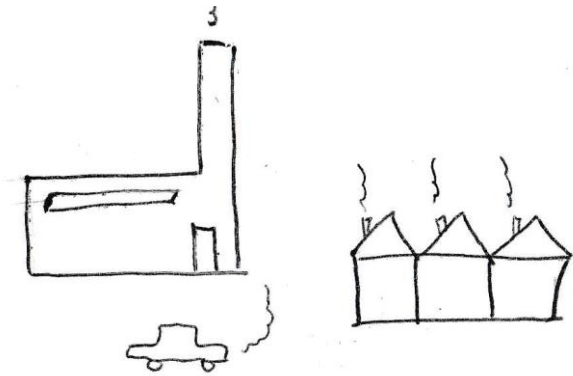


## Biosphere

All living things in the biosphere convert energy-rich carbon compounds in the so-called “citric acid cycle”.  $\text{CO}_2$  is produced from the compounds, which is released into the atmosphere.

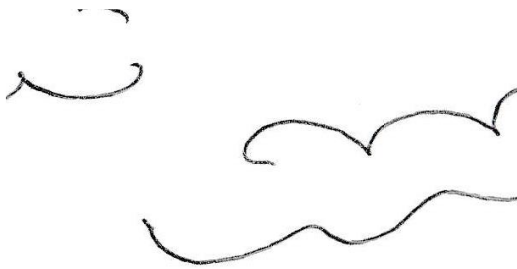
In addition to respiration, plants can also photosynthesise. They assimilate (absorb) the carbon from the air ( $\text{CO}_2$ ) and convert it into energy-rich carbon compounds in the Calvin cycle.

Carbonic residues from dead organisms accumulate in the ground (minerals or fossil fuels).



## Settlement

People use fossil fuels to generate energy. Fossil fuels are carbonic compounds formed from the remains of living organisms over millions of years. They are burnt and release  $\text{CO}_2$ , which then finds its way into the atmosphere.



## Atmosphere

The atmosphere contains lots of carbon dioxide ( $\text{CO}_2$ ). There is a constant diffusion of  $\text{CO}_2$  in both directions between the atmosphere and open water.



## Erosion

Carbon compounds from upper layers of the earth are transported to open waters by abrasion or erosion.