

Photosynthesis and respiration – the photo-blue-bottle experiment**B1 Gap-filling activity** - Fill in the gaps with an appropriate term:

back reaction (Rückreaktion); cellular respiration (Zellatmung); chemical reaction; energy; energy conversion (Energieumwandlung); high-energy (2x); light energy; low-energy; model experiment (Modellexperiment); released (emittiert, abgegeben); sugar; yellow.

Photosynthesis is a process which comprises both _____ and matter conversion (a _____ While _____ is being transformed into chemical energy, _____ substances (i.e. carbon dioxide and water) are transformed into high-energy substances (i.e. _____ and oxygen is released.

In the _____ the yellow low energy solution is transformed into the blue _____ solution by means of light energy. By shaking the _____ is set off due to the contact between oxygen and the blue solution (oxidation). As a result, the blue solution is transformed back into the _____ solution. Hereby the _____ stored in the blue solution is released. This process simulates _____. The _____ energy from _____ substances serves as an energy source for animals and plants, which need it for their growth.

(to) **comprise** – (to) consist of (umfassen; aus etw. bestehen)

matter conversion – Stoffumwandlung

(to) **transform sth. into sth.** – etw. in etw. umwandeln

(to) **set off sth.** – to start a process or series of events (etw. in Gang bringen, etw. starten)

(to) **simulate sth.** – (etw. simulieren; etw. nachahmen)