Name: _____ Date: _____

Photo-Blue-Bottle (Sek. I/lower secondary level)
A model experiment for matter- and energy-conversion

The Photo-Blue-Bottle-Experiment

E2 Read the following statements and decide whether they are true or false (in case you are undecided, write down a question mark (?)). Based on the findings in E1, give reasons for your choice. Plan experiments to clarify the statements which you marked with a question mark.

Photo-Blue-Bottle: YELLOW → BLUE
The chemical reaction YELLOW → BLUE …

… requires energy supply.

… does not work with any given colour from the visible light spectrum.

… does not take place if there is no air above the solution.

… only takes place at temperatures above 5 °C.

… releases energy.

… does not require any air.

Photo-Blue-Bottle: YELLOW → BLUE
The chemical reaction BLUE → YELLOW …

… occurs if you shake the solution.

… takes place even though there is no air above the solution.

… does **not** take place if energy is supplied in the form of light.

… requires air.

… releases energy.

… requires only *oxygen* from the air.