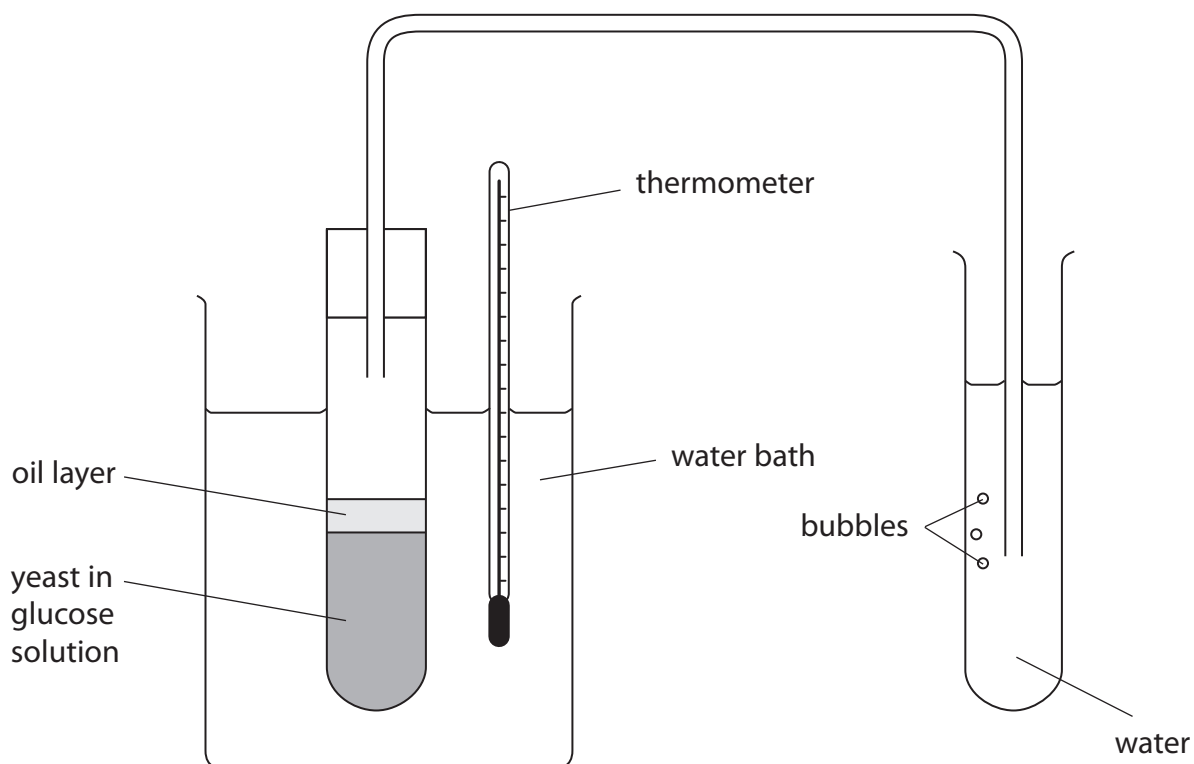


# INTERNATIONAL GCSE SCIENCE (SINGLE AWARD)

## ACTIVITY 3 - BIOLOGY

- 7 A student wants to investigate the effect of temperature on the rate of anaerobic respiration by yeast.

She set up this apparatus.



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- (b) The student varies the temperature of the water bath between 15 °C and 60 °C.

She measures the rate of respiration by counting the number of carbon dioxide bubbles produced per minute.

These are her results.

Temperature / °C	Number of bubbles produced in one minute				
	trial 1	trial 2	trial 3	trial 4	trial mean
15	6	7	5	5	6
20	7	8	7	9	8
35	10	12	11	14	
45	12	15	14	16	14
60	3	2	1	2	2

- (i) Calculate the mean number of bubbles produced in one minute at 35 °C.

(2)

mean number of bubbles in one minute = .....

- (ii) Calculate the percentage change in the mean number of bubbles produced in one minute as the temperature increases from 15 °C to 45 °C.

(2)

percentage change = .....%