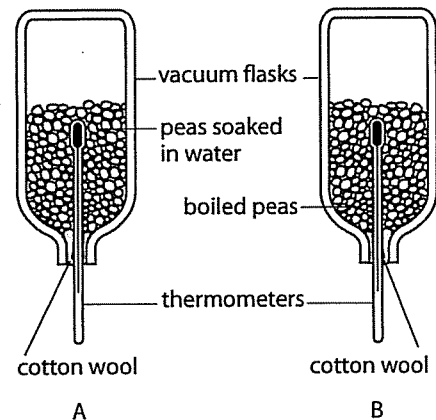


- 1 Susan set up the apparatus shown in the diagram using peas soaked in water and boiled peas. Both sets of peas were sterilised to kill microbes on their surfaces.

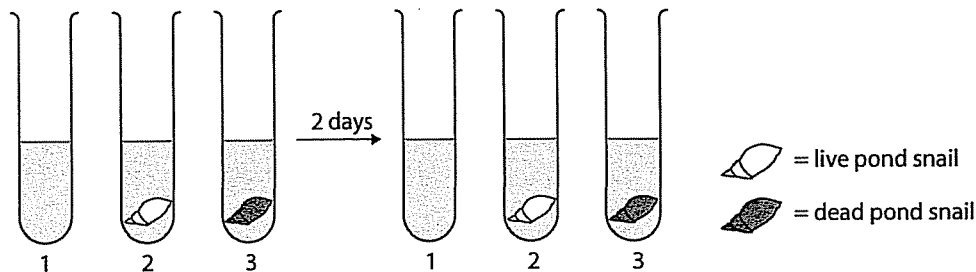
She measured the temperature inside each flask every 12 hours over 3 days. Her results are shown in the table.

Time (hours)	Temperature (°C)	
	Flask A	Flask B
0	15	15
12	20	15
24	25	15
36	29	15
48	31	15
60	33	15
72	33	15



- a Why did the temperature rise in flask A?
b Why did the temperature remain at 15°C in flask B?

- 2 Pond snails use aerobic respiration like us. They take the oxygen they need from water. The following experiment was set up using snails and pond water.



After 2 days the snails were removed from the water and hydrogencarbonate indicator was added to each tube. Hydrogencarbonate indicator is pink. If carbon dioxide is added it turns yellow. If carbon dioxide is removed it turns purple.

- a What colour do you think the indicator would go if it was added to the tubes at the start of the experiment?
b What colour do you think the indicator turned in each tube at the end of the experiment?
c One of these tubes is a 'control'. This means that it is prepared in the same way as the other parts of the investigation but the variable that is changed in the investigation is not used. Which tube is the control?
d Maria has suggested doing a similar experiment by placing pond snails in limewater. Write down what you think about this idea, explaining your reasons.

I CAN...

- use a knowledge of respiration to make predictions and draw conclusions
- evaluate a method
- identify a control test in an experiment