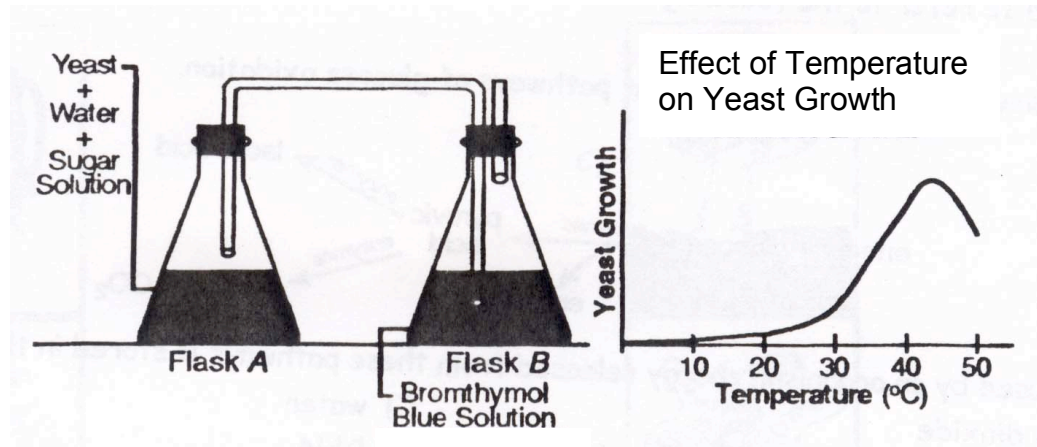


Biology: Examining an Experiment in Yeast Fermentation

A biology student was interested in recording yeast growth rates at different temperatures. In a sealed flask, labeled flask A, the student put yeast, water and sugar. Flask B was filled with bromthymol blue, a solution that changes to yellow when acidic and blue when basic. The glass tube connecting the two flasks was placed beneath the level of the bromthymol blue.



Let us check our understanding of fermentation by relating the experimental results to what we know.

- 1) Under what conditions does fermentation occur?
- 2) Why was it necessary to seal flask A?
- 3) What are two end products of fermentation?
- 4) Why is the tube from flask A submerged below the bromthymol blue in flask B?
- 5) What important information does the bromthymol blue tell us about the yeast?
- 6) What color would you expect the liquid in flask B to be below 10 degrees Celsius and why?
- 7) What color would you expect the liquid in flask B to be above 30 degrees Celsius and why?
- 8) What common foods and beverages are created using the process of fermentation?
- 9) In animals, cells that don't have enough oxygen will use fermentation. This happens to us when we work out. What compound is produced that makes our muscles sore?