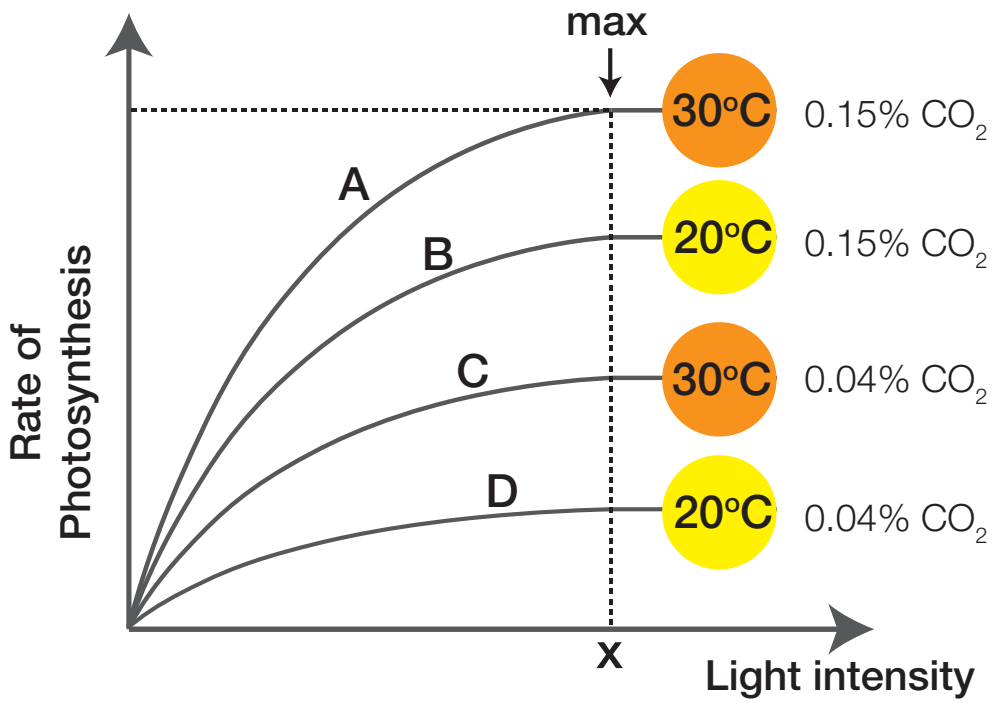
BIOLOGY

WORKSHEET - RATE LIMITING FACTORS & PHOTOSYNTHESIS



QUESTIONS

1) There may be a number of reasons why plants do not grow as quickly as we would like. What process taking place inside plant leaves is essential to growth and what molecules are produced by this process? (1 mark)

2) The term 'rate limiting' is often used when describing the speed of plant growth. What does the term mean? (2 marks)

3) Three variables / factors are plotted on the graph above. Name them (3 marks)

4) Explain the growth of plants in greenhouse B compared to those in A and C (5 marks)

5) Which of the factors plotted on this graph determines the maximum rate of photosynthesis that can be achieved (under otherwise optimal conditions)? (1 mark)

6) What would you recommend to the farmer who owns greenhouse D in order to optimise plant growth (2 marks)

7) The owner of greenhouse A does not fully understand how these factors control photosynthesis. He decides to try and increase plant growth by using higher temperatures in his greenhouses. What problem could this cause? (2 marks)