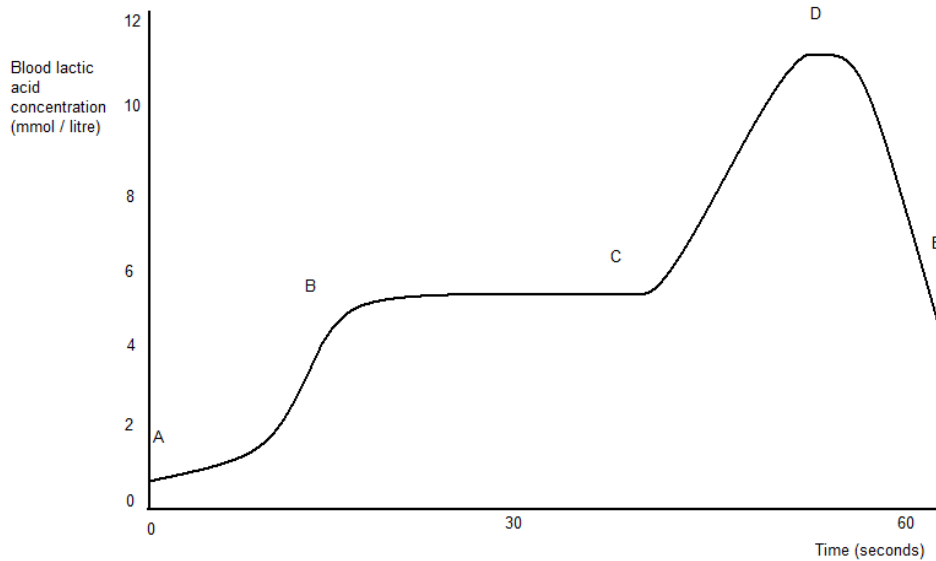


Respiration in athletics

The blood of an athlete was tested before, during and after a 400m race:



Complete the following table about each section of the race:

1. Describe the strategy of the runner.
2. Provide evidence from the graph by describing the change in lactic acid concentration.
3. Explain what is causing the change in lactic acid concentration.

Section of race	Strategy	Evidence	Explanation
A to B	Sprint start	Initially slow increase, then rapid increase in lactic acid concentration	Respiration changed from aerobic to anaerobic because not enough oxygen could reach the muscles.
B to C	Stops accelerating and maintains pace	Lactic acid concentration levels off	Aerobic respiration is occurring, but insufficient oxygen reaches muscles to break down lactic acid.
C to D	Sprint finish	Rapid increase in lactic acid concentration	Anaerobic respiration is occurring again.
D to E (after the race has finished)	Warm down and rest	Decrease in lactic acid concentration	Aerobic respiration is occurring again, with increased oxygen supply to break down the lactic acid.