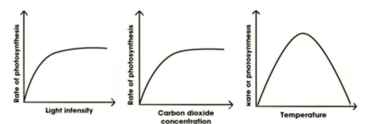


Science Knowledge Organiser – B4- Life processes

B4.1 How do chemical reactions take place in living things?

MRS GREEN	
Respiration	
Photosynthesis	
Enzyme	
Active site	
Lock and Key model	
Denatured	
Optimum	
Factors affecting the rate of enzyme activity	

B4.2 How do plants make food?

Word equation for photosynthesis	
Balanced symbol equation for photosynthesis	
Stages in photosynthesis	
Uses of glucose	
Diffusion	
Example of diffusion	
Osmosis	
Example of osmosis	
Active transport	
Example of active transport	
Limiting factor	
Limiting factors for photosynthesis	 <p>The figure contains three separate line graphs. Each graph has 'Rate of photosynthesis' on the vertical y-axis. The first graph plots 'Rate of photosynthesis' against 'Light intensity'. The curve starts at the origin, rises steeply, and then levels off to a horizontal line. The second graph plots 'Rate of photosynthesis' against 'Carbon dioxide concentration'. The curve starts at the origin, rises steeply, and then levels off to a horizontal line. The third graph plots 'Rate of photosynthesis' against 'Temperature'. The curve starts at the origin, rises to a peak, and then falls back down to the x-axis.</p>
Chloroplast	
Cell membrane	
Nucleus	
Cytoplasm	

B4.2 How do plants make food? Describe and explain techniques used in fieldwork to investigate the effect of light on plants.

Light meter	
Quadrat	
Use of identification key	
How to make a transect	

B4.3 How do living organisms obtain energy?

Word equation for aerobic respiration	
Balanced symbol equation for aerobic respiration	
Uses of energy	
Synthesis of large molecules	
Anaerobic respiration	
Word equation for anaerobic respiration in animal cells/some bacteria	
Word equation for anaerobic respiration in plant cells and some microorganisms (yeast)	

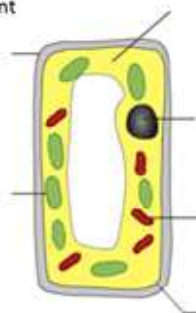
B4 Diagrams

Recall the structure of a typical plant cell

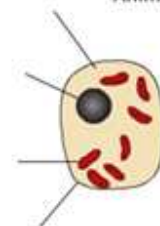
Recall structure of typical animal cell

Recall structure of typical microbial cells (bacteria and yeast)

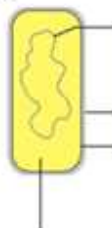
Plant



Animal



Bacterial



Yeast

