

Week beginning	Week	Lessons		
		BB	SMG	MET
22-Feb	B			
01-Mar	A			
08-Mar	B			
15-Mar	A	rtv	Selection pressures	Dissociation curves
22-Mar	B	Investigative diversity	Protein synthesis	Oligomers and biomolecules
29-Mar	A	Antibody	Mitosis	Water
<b>EASTER</b>				
12-Apr	B	Phosphorylation	Enzymation	Neuro system and synapses
20-Apr	A	Inheritance	Assessment	Assessment
03-May	B	Hardy Weinberg	Energy and Ecosystems	Muscle contraction and <b>essay 1</b>
10-May	A	<b>essay 2</b>	Assessment	Assessment
17-May	B		Thermoregulation	Thermoregulation
24-May	A		Any further opportunities for assessment	Assessment

Taught in lockdown  
 \*\*taught in lockdown BUT needed for progression  
 \*not taught at all  
 #not taught at all BUT needed for progression

Topic 1
<b>Membrane transport</b>
1 Carbohydrates
2 Lipids
3 Proteins
4 Enzymes
5 Water and ions
6 Starch, glycogen and cellulose
7 RNA and DNA structure
8 DNA replication
9 Energy and ATP

Topic 2
<b>Cells</b>
1 Microscopy
2 Eukaryotic cell structure
3 Cell specialisation and prokaryotic cell structure
4 Membranes
5 Cell surface membrane and diffusion
6 Osmosis
7 Active transport
8 Co transport and glucose uptake
9 Defence mechanisms
10 Phagocytosis
11 T lymphocytes
12 B lymphocytes
13 Monoclonal antibodies and vaccination
14 rtv

Topic 3
<b>Respiration and exchange</b>
1 SAVR and features of specialised exchange surfaces
2 Single celled organisms and insects
3 Fish gill
4 Lung structure and function
5 Breathing and GC in lungs
6 Circulatory system and heart structure
7 Cardiac cycle
8 Blood vessels
9 Tissue fluid
10 Haemoglobin and dissociation curves
11 Spleen
12 Plasma
13 GC in heat and adaptation
14 Digestion and absorption

Topic 4
<b>Genes and chromosomes</b>
1 DNA and chromosomes
2 Genes and triplet code
3 DNA
4 Transcription
5 Translation
6 Mutations
7 Meiosis
8 Quality and adaptation
9 Selective pressures
10 Taxonomy
11 Index of diversity and human activities
12 Investigation diversity and quantitative measurements

Topic 5
<b>Energy transfers</b>
1 Photosynthesis- light dependent
2 Light independent
3 Respiration- glycolysis, link and Krebs
4 Oxidative phosphorylation
5 Resonable respiration
6 Food chains and energy transfer
7 Productivity
8 Nitrogen cycle and phosphorus cycle
9 Fertilisers and environmental issues

Topic 6
<b>Organisms and response</b>
1 Stimuli, stimuli and responses
2 Reflex arcs and receptors
3 Homeostasis
4 Nervous structure and function
5 Action potential
6 Speed of a nervous impulse
7 Synapses
8 Muscle structure and function
9 Muscle contraction
10 Neuromuscular junction
11 Feedback mechanisms and thermoregulation
12 Reflex structure and function
13 Chemoregulation
14 Blood glucose control and diabetes

Topic 7
<b>Genetics and populations</b>
1 Monohybrid and dihybrid crosses
2 Co dominance and sex linkage
3 Autosomal linkage and epistasis
4 DNA repair and Hardy Weinberg
5 Variation and natural selection
6 Selection pressures
7 Isolation and speciation
8 Ecosystems and factors affecting populations
9 Competition and predation
10 Sampling populations
11 Succession
12 Conservation

Topic 8
<b>Gene expression</b>
1 Mutations
2 Stem cells and totipotency
3 Regulating transcription and translation
4 Epigenetics
5 Cancer and the genome project
6 DNA technology- producing DNA fragments
7 In-vitro gene cloning
8 In-vitro gene cloning
9 Genetic screening
10 Genetic fingerprinting

Paper 1  
 Q1. Enzymes **MET**  
 Q2. Cells structure/mass transport: **evaluate question**  
 Q3. Investigative diversity- **BB**  
 Q4. Selection pressures/protein synthesis/rtv- **SMG**  
 Q5. HIV/immune response- **BB**  
 Q6. Mitosis/DNA replication/rtv **BB**  
 Q7. Mitosis/immune **SMG**  
 Q8. Gene expression/epigenetics/epigenetics  
 Q9. Dissociation curves- **MET**  
 Q10. Properties of water/Biochemical tests/Biomolecules- **MET**

Paper 2  
 photosynthesis- **BB**  
 inheritance- **BB**  
 Synapses/Action potential- **MET**  
 inheritance/Hardy Weinberg- **BB**  
 cell division/immune  
 Resonable respiration  
 photosynthesis- **BB**