

Active Revision – Biology GCSE

Assessment Point – End of Year 10

Research shows that students who do frequent chunks of revision across all 3 stages of revision below are more likely to reach their full potential.

- ✓ **Upload** – consolidate your knowledge
- ✓ **Process** – active retrieval practice
- ✓ **Download** – apply your knowledge



upload



process



download

For all topics - Use AQA [GCSE Biology past papers](#).
 - Use mark schemes to self-assess.
 - Complete one full Paper 1

TOPIC: Cell Biology - https://www.aqa.org.uk/subjects/biology/gcse/biology-8461/specification/subject-content/cell-biology#Cell_biology

Cells, Cell Division (mitosis), Cell Specialisation, Stem Cells, Transport in Cells (osmosis, diffusion, active transport), Exchanging Substances

- Make mind maps for each subtopic in bold above.
- Create flashcards with diagrams, use your revision guide to do this.
- Create flashcards with key definitions on from the subtopics
- Label diagrams (plant/animal cells, specialised cells, mitosis stages).
- Use BBC Bitesize or Complete the Seneca assignments

- Use flashcards with the Leitner system: Sort into daily, every 3 days, and weekly review piles based on how well you recall them.
- Draw and label an animal and a plant cell from memory, then compare to a diagram and correct mistakes.
- Sequence mitosis: Write each stage on paper strips, shuffle, and reorder from memory.
- Describe the process of osmosis using a diagram drawn without notes.

Complete past paper questions and mark them using the link - <https://www.physicsandmathstutor.com/biology-revision/gcse-aqa/cell-biology/>

<p>set by your teacher to fill knowledge gaps.</p> <ul style="list-style-type: none"> - Watch YouTube recap: Cell Biology 	<ul style="list-style-type: none"> - Create 10 quiz questions and answer them 24 hours later to check long-term recall. - Complete the Seneca assignments set by your teacher 	
<p>TOPIC: Organisation - https://www.aqa.org.uk/subjects/biology/gcse/biology-8461/specification/subject-content/organisation</p>		
<p>Levels of Organisation, Digestive System & Enzymes, The Lungs, The Heart, Blood Vessels, The Blood, Cardiovascular Disease (CVD), Health & Disease, Risk Factors, Cancer, Plant Cell Organisation, Transpiration</p> <ul style="list-style-type: none"> - Mind maps and labelled diagrams (heart, lungs, digestive system, leaf structure). - Flashcards: lock and key theory, digestive enzymes, denaturing, blood components and blood vessels. - Make a table comparing transpiration with translocation - Draw annotated flowcharts for digestion & circulation. - Watch Organisation Quick-Fire Video 	<ul style="list-style-type: none"> - Draw and label the human heart, annotate with the direction of blood flow. - Explain how enzymes work, the digestive enzymes and their roles and factors affecting them using a diagram, then test yourself using flashcards. - Write the full digestive process without looking at notes, then compare. - From memory, describe how water moves through a plant and what factors affect transpiration. - Complete a comparison chart of arteries, veins and capillaries from memory. - Complete the Seneca assignments set by your teacher 	<p>Complete past paper questions and mark them using the link - https://www.physicsandmathstutor.com/biology-revision/gcse-aqa/organisation/</p>
<p>TOPIC: Infection and response - https://www.aqa.org.uk/subjects/biology/gcse/biology-8461/specification/subject-content/infection-and-response</p>		
<p>Communicable Disease, Pathogens, White Blood Cells, Vaccination, Antibiotics, Drug Trials, Monoclonal Antibodies, Plant Diseases & Defences</p> <ul style="list-style-type: none"> - Create flashcards with the four types of pathogens and the linked diseases. - Create a series of flashcards; the first set being about how monoclonal antibodies are made, the second about 	<ul style="list-style-type: none"> - Create a timeline of drug development stages, then rewrite from memory the next day. - Describe how phagocytosis, antitoxins and antibodies works by sketching the process and writing a short explanation. 	<p>Complete past paper questions and mark them using the link - https://www.physicsandmathstutor.com/biology-revision/gcse-aqa/infection-and-response/</p>

<p>the uses of monoclonal antibodies, the third about how a pregnancy test works (including positive and negative results)</p> <ul style="list-style-type: none"> - Make a comic strip explaining the stages of a drug trial. - Draw and annotate diagrams of white blood cells (antibodies, antitoxins and phagocytosis) - Make a flow diagram explaining what a vaccine is and how it works. - Watch: Infection & Response Qs 	<ul style="list-style-type: none"> -write a timeline of how vaccines work - Sort flashcards into groups: types of pathogens, examples, diseases caused. - Create and answer 15 multiple-choice questions using your own knowledge. - Label a diagram showing how monoclonal antibodies work and how they are made. Cover and redraw from memory. -Complete the Seneca assignments set by your teacher 	
<p>TOPIC: Bioenergetics - https://www.aqa.org.uk/subjects/biology/gcse/biology-8461/specification/subject-content/bioenergetics</p>		
<p><i>Photosynthesis (factors affecting it), Respiration (aerobic & anaerobic), Metabolism, Exercise</i></p> <ul style="list-style-type: none"> - Diagram flashcards for both types of respiration. - make a summary sheet comparing photosynthesis and respiration. - Mind map on how exercise affects the body. - Make flashcards on the following; metabolism, metabolic rate, factors affecting metabolism - Watch: Photosynthesis & Respiration 	<ul style="list-style-type: none"> - Write out the equations for photosynthesis from memory, then balance and check. - Write out the equations for aerobic, anaerobic respiration and fermentation from memory, then check. - Create a table comparing aerobic and anaerobic respiration. Fill it in without notes. - Write a step-by-step method for the photosynthesis practical from memory. - Explain the effects of exercise on the body and draw the changes that happen in heart rate and breathing rate. - Use flashcards to test yourself on limiting factors of photosynthesis and their impact. -Complete the Seneca assignments set by your teacher 	<p>Complete past paper questions and mark them using the link - https://www.physicsandmathstutor.com/biology-revision/gcse-aqa/bioenergetics/</p>

TOPIC: Required practicals

Microscopy, Osmosis in Potatoes, Food Tests, Enzymes & pH, Effect of Light on Photosynthesis, Microbiology

- Create a summary flashcard of all required practicals.
- Sketch diagrams of experimental setups.
- List variables (independent, dependent and control) and outcomes (results) for each practical.
- Watch Malmesbury science videos to remind you how the practical is set up.

<https://www.youtube.com/watch?v=SX6mow1AExI&list=PLAd0MSIZBSsHv1pioWRdg-pZCWTo84cdP>

- Draw the setup for each practical from memory and label all key parts.
- Complete a table from memory with the following headings: Practical Name, Aim, Variables, Results.
- Use flashcards to test on key terms such as dependent/independent variable, control variable, and accuracy.
- Write a practice 6-mark question response for a required practical. Then, identify which parts of the mark scheme you included.
- Complete the Seneca assignments set by your teacher

Questions will be in the topic links above.