Intervention – AQA Trilogy Biology paper 1 – Higher

B1 Cell structure and transport

What are two types of eukaryotic cell?	What type of cell are bacteria?	Where is DNA found in animal and plant cells?	What is the function of the cellmembrane?	What is the function of mitochondria ?
What is the function of chloroplasts ?	What is the function of ribosomes ?	What is the function of the cell wall?	What is the structure of the main genetic material in a prokaryotic cell?	How are electron microscopes different to light microscopes?
What is the function of a redblood cell?	Give three adaptations of a red blood cell.	What is the function of a nervecell?	Give two adaptations of a nerve cell.	What is the function of a sperm cell?
Give two adaptations of asperm cell.	What is the function of a palisade cell?	Give two adaptations of apalisade cell.	What is the function of a root hair cell?	Give two adaptations of a root hair cell.

Intervention – AQA Trilogy Biology paper 1 – Higher

B1 Cell structure and transport

What is diffusion?	Name three factors that affect the rate of diffusion.	How are villi adapted for exchanging substances?	What is the purpose of active transport in the small intestine?
What is osmosis?	Give one example of osmosis in a plant.	What is active transport?	Why is active transport needed in plant roots?
	How are the lungs adapted for efficient gas exchange?	How are fish gills adapted for efficient gas exchange?	

Intervention – AQA Trilogy Biology paper 1 – Higher

B1 Cell division

What is a stem cell?	What are adult stem cells?	Where are adult stem cells found?	What are embryonic stem cells?	Where are embryonic stem cells found?
What is therapeutic cloning?	Give one advantage of using therapeutic cloning.	Give one advantage of using adult stem cells.	Give two disadvantages of using adult stem cells.	Give two advantages of using embryonic stem cells.
Give two disadvantages of using embryonic stem cells.	What are plant meristems?	Give two advantages of using plant meristems to clone plants.	Give one disadvantage of using plant meristems to clone plants.	What is cell division by mitosis?
What is the purpose of mitosis?	What happens during the first stage of the cell cycle?	What happens during mitosis?	What happens during the third stage of the cell cycle?	

Intervention – AQA Trilogy Biology paper 1 – Higher

B2 Organisation and the digestive system

Name the five levels of organisation.	What is a tissue?	What is an organ?	What is the function of the liver in digestion?	What is the function of saliva in digestion?
Name three enzymes produced in the pancreas.	What are enzymes?	Why are enzymes described as specific?	Describe the function of amylase.	Where is amylase produced?
Describe the function of proteases.	Where are proteases produced?	Describe the function of lipases.	Where are lipases produced?	What are two factors that affect the rate of activity of an enzyme?
What does denatured mean?	Describe the effect of temperature on enzyme activity.	Describe the effect of pH on enzyme activity.	Why do different digestive enzymes have different optimum pHs?	

Intervention – AQA Trilogy Biology paper 1 – Higher

B2 Organising animals and plants

Name the four main components of blood.	What is the function of platelets?	Describe three adaptations of a red blood cell.	How do white blood cells protect the body?	Name the substances transported in the blood plasma.	What is coronary heart disease?
Why is the human circulatory system a double circulatory system?	How does the structure of an artery relate to its function?	How does the structure of a vein relate to its function?	How does the structure of a capillary relate to its function?	List the structures air passes through when breathing in.	What is a stent?
What are statins?	What is a faulty heart valve?	How can a faulty heart valve be treated?	When do heart transplants take place?	What are artificial hearts used for?	

Intervention – AQA Trilogy Biology paper 1 – Higher

B2 Organising animals and plants

Why is a leaf an organ?	What is the function of the xylem?	Name four factors that affect the rate of transpiration.	What is the purpose of transpiration?	What effect does temperature have on the rate of transpiration?	What effect does humidity have on the rate of transpiration?
How is the upper epidermis adapted for its function?	How is the palisade mesophyll adapted for its function?	How is the spongy mesophyll adapted for its function?	What is the function of the guard cells?	Why does increased light intensity increase the rate of transpiration?	What is the function of the stomata?
Give three adaptations of the xylem.	What is the function of the phloem?	What is the purpose of translocation?	Define the term transpiration.	Where are most stomata found?	What is the advantage to the plant of having a high number of stomata at this location?

Intervention – AQA Trilogy Biology paper 1 – Higher

B3 Communicable diseases

What is a communicable disease?	What is a pathogen?	Name four types of pathogen.	How can pathogens spread?	What non-specific systems does the body use to prevent pathogens getting into it?
How do bacteria make you ill?	How do viruses make you ill?	Name three examples of viral diseases.	Name two examples of bacterial diseases.	What three functions do white blood cells have?
Name four methods of controlling the spread of communicable disease.	What happens during phagocytosis?	Name one fungal disease.	Describe an example of a protist disease.	

Intervention – AQA Trilogy Biology paper 1 – Higher

B3 Preventing and treating disease

What are antigens?	Why are antibodies a specific defence?	What is the function of an antitoxin?	What does a vaccine contain?
What is an antibiotic?	What properties of new drugs are clinical trials designed to test?	What is a placebo?	How does vaccination protect against a specific pathogen?
What do painkillers do?	What happens in the pre-clinical stage of a drug trial?	What is a double-blind trial?	What is herd immunity?

Intervention – AQA Trilogy Biology paper 1 – Higher

B2 Non-communicable diseases

What is coronary heart disease?	When do heart transplants take place?	What is a risk factor?
What is a stent?	What are artificial hearts used for?	Give five risk factors.
What are statins?	Define health.	What is cancer?
What is a faulty heart valve?	What factors can affect health?	What are malignant tumours?
How can a faulty heart valve be treated?	What two types of risk factor affect the development of cancers?	What are benign tumours?

Intervention – AQA Trilogy Biology paper 1 – Higher

B4 Photosynthesis

Where does photosynthesis occur?	Give the balanced symbol equation for photosynthesis.	Describe how temperature affects the rate of photosynthesis.
What is the name of the green pigment in the leaves?	Define the term limiting factor.	Give the equation for the inverse square law for light intensity.
What type of reaction is photosynthesis?	Give the limiting factors of photosynthesis.	Why are limiting factors important in the economics of growing plants in greenhouses?
What type of energy is used in photosynthesis?	Describe how light intensity affects the rate of photosynthesis.	How do plants use the glucose produced in photosynthesis?
Give the word equation for photosynthesis.	Describe how carbon dioxide concentration affects the rate of photosynthesis.	

Intervention – AQA Trilogy Biology paper 1 – Higher

B4 Respiration

Define the term cellular respiration.	Write the balanced symbol equation for aerobic respiration.	What substance builds up in the muscles during anaerobic respiration?
What do organisms need energy for?	Why does aerobic respiration release more energy than anaerobic respiration?	What happens to muscles during long periods of activity?
What is the difference between aerobic and anaerobic respiration?	What is anaerobic respiration in yeast cells called?	What is oxygen debt?
Write the word equation for aerobic respiration.	Write the word equation for anaerobic respiration in plant and yeast cells.	How is lactic acid removed from the body?
Write the word equation for anaerobic respiration in muscles.	How does the body supply the muscles with more oxygenated blood during exercise?	What is metabolism?