



AQA Biology Checklist - Entry Level

	Video	Exam Q&A	😊 😐 😞
Topic 1. Cell biology			
Video: Eukaryotic and prokaryotic cells			
<ul style="list-style-type: none"> Distinguish between eukaryotic and prokaryotic cells. Compare animal and plant cells. Relate cell structures to their functions. 			
Video: Specialised Cells			
<ul style="list-style-type: none"> Describe how a specialised cell is adapted by having a different shape or a different number of organelles. Explain how the adaptations make the cell suited to its function. Describe how specialised cells form tissues, how tissues form organs and how organs form organ systems in a multicellular organism. 			
Topic 2. Organisation			
Video: The Circulatory System			
<ul style="list-style-type: none"> Compare the components of the blood. Relate blood vessel structure to the function of the vessel. Label a diagram of the heart. 			
Video: Health and risk factors			
<ul style="list-style-type: none"> Define health. Describe risk factors that correlate with cancer and cardiovascular disease. Distinguish between correlation and causation and identify these from graphs [Maths skills]. 			
Topic 3. Infection and response			
Video: Preventing the spread of pathogens			
<ul style="list-style-type: none"> Describe how the work of Semmelweis led to the theory of germs. Define a pathogen and describe how they make us ill. Describe the barriers our body has to infection. 			
Topic 4. Bioenergetics			
Video: Photosynthesis			
<ul style="list-style-type: none"> State the word, symbol or balanced symbol equation for photosynthesis. Describe five uses for the glucose made by the plant. 			



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Video

Exam
Q&A



Topic 5. Homeostasis and response

Video: The Nervous System

- Describe the role of receptors, the coordination centre and effectors in homeostatic control systems involving the nervous system.
- Describe how information from receptors passes along neurones and synapses to generate a response.
- Explain the importance of a reflex.
- Describe the role of sweating and vasodilation in cooling down.
- Describe the role of body hair in controlling body temperature.

Video: Hormones in human reproduction

- Describe the roles of FSH, LH, oestrogen and progesterone in the menstrual cycle; interpret graphs of the effect of these hormones.
- Describe different types of contraception.
- Describe how to treat infertility.

Topic 6. Inheritance, variation and evolution

Video: Genetic Inheritance

- Define a number of genetic key terms.
- Show, using a genetic cross, how fur colour is determined in animals.
- Show via a genetic cross why there is always a 50% chance that a baby could be born either a boy or a girl.

Video: Asexual vs sexual reproduction and meiosis

- Compare mitosis and meiosis.
- Evaluate the benefits and drawbacks of sexual and asexual reproduction.
- Describe how meiosis produces four haploid daughter cells.

Video: DNA and the Genome

- Describe the structure of DNA and define the genome.
- Describe the role of the Human Genome Project.

Video: Natural Selection

- Define a species.
- Compare inherited and environmental characteristics.
- Describe the process of natural selection using the example of the peppered moth.

Video: The History of Genetics

- Describe the development of the study of inheritance including the work of Mendel.
- Explain why Mendel's work was not accepted at the time.

Topic 7. Ecology

Video: Adaptations

- Compare structural, behavioural and functional adaptations for animals in hot and cold climates and as predators or prey.
- Describe how plants are adapted to light, water and space.
- Define an extremophile and describe their adaptations to extreme environments.

Video: Human impact on the environment

- Explain how human population growth has led to an increase in air, water and land pollution.
- Explain how deforestation and the destruction of peat bogs is contributing the global warming.
- Define biodiversity.
- Suggest how biodiversity is reducing and what can be done to conserve it.