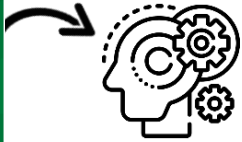
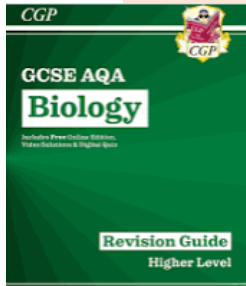


The FACE it revision model in Biology

1.

LEARNT THE FACTS



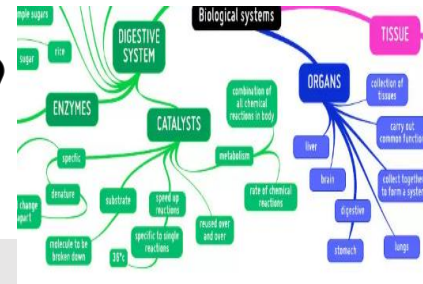
Use the revision guide to go over key fundamental concepts for each topic.

These can be in the form of:

- Flash cards (key terminology and topics).
- Bullet points to summarise.
- Mind maps to synoptically link concepts across topics.
- Annotating diagrams.

2.

APPLY IN CONTEXT

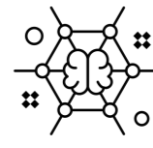


Test yourself - do you actually know the topic from memory?

- 'Brain-dump' mind-map on each topic. Write down as much as you can, then check your notes to identify what you didn't remember!
- Past paper questions to practise applying what you know to different scenarios.

3.

CONNECT IDEAS



Review B1 Cell Biology

Can you...?

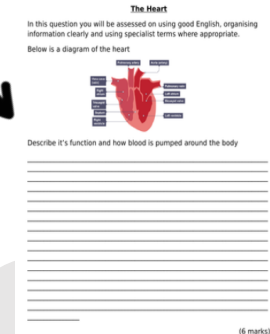
Can you...?	Yes	No
18.1.1 Cell structure		
Draw the main components of plant and animal cells (eukaryotic cells).		
Describe the structure of different types of cell relative to their function in a tissue, an organ or an organism.		
Explain how the main sub-cellular structures, including the nucleus, cell membrane, mitochondria, cell wall and chloroplasts in plant cells and plastids in bacterial cells are related to their function.		
Explain how the structure of different types of cell relate to their function in a tissue, an organ or an organism.		
Explain how the structure of different types of cell relate to their function in a tissue, an organ or an organism.		
Describe the differences in magnification and resolution between electron and light microscopes.		
Define <i>biuret</i> (biology only).		
Explain how to prepare an uncontaminated culture (biology only).		
18.1.2 Cell division		
Recall that the nucleus of a cell contains chromosomes made of DNA molecules. Each chromosome carries a large number of genes. In body cells the chromosomes are normally found in pairs.		
Give an overview of mitosis.		
Understand that cell division by mitosis is important in the growth and development of multicellular organisms.		
Define a stem cell.		
Recall that some cells from human embryos and adult bone marrow can be cloned and made to differentiate into other different types of tissue cells.		
Explain the conditions which have to be fulfilled for treatment with stem cells.		
Describe the use of an artificial membrane as a potential use of stem cell.		
Recall that stem cells from meristems in plants can be used to produce clones of plants quickly and economically and thereby produce cells.		
18.1.3 Transport in cells		
Explain how substances move into and out of cells across the cell membrane via diffusion.		
Describe diffusion.		
Recall that some of the substances transported in and out of cells by diffusion are oxygen and carbon dioxide in all organisms, and of the waste product urea from cells into the blood plasma.		
Describe factors that affect the rate of diffusion.		
Recall that a single-celled organism has a relatively large surface area to volume ratio to allow sufficient transport of molecules into and out of the cell.		
Explain how the small intestine and lungs in mammals, gills in fish, and the roots and leaves in plants, are adapted for exchanging materials.		
List factors that increase the effectiveness of an exchange surface.		
Describe osmosis.		
Recall that plant tissue osmosis experiments show a water potential gradient to move concentrated solution (sugar) or concentration gradient. This requires energy from respiration.		
List the structure of a small leaf cell by function.		
Describe a use for active transport in both plants and animals.		
Explain the difference between diffusion, osmosis and active transport.		

Use checklist to link your knowledge together.

- Can you explain what each bullet point is in detail?
- Can you recall key concepts for each bullet point?
- Tick off a topic once you feel confident you know a range of knowledge about it!

4.

TEST IN EXAM CONDITIONS

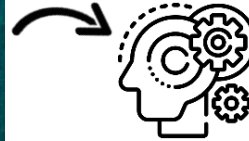
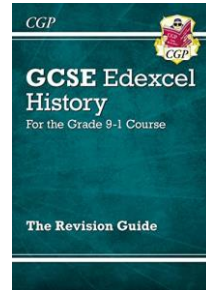


- Set a timer, i.e. 5 minutes for a 5 mark question.
- 'BUS the question: Box the command word Underline the keywords Structure your plan.
- Check the mark scheme on AQA website.
- Reflection - How could you improve?

FACE it revision model

Students should use FACE it, to support their revision planning and as a diagnostic tool:

Have you learnt your **F**ACTs?



Have you practised **A**pplying your knowledge in context questions?



Year 11 Spot Check Quiz: Modern Ideas about Disease

- What was the main limitation of germ theory? (1 mark)
- Give two differences between a bacteria and a virus. (2 marks)
- Who first discovered the double helix structure of DNA in 1953? (1 mark)
(A) Watson and Crick (B) Cook and Watson (C) Dal and Hill
- What was the Human Genome Project? (1 mark)
- Give an example of a genetic disease we can now understand due to knowledge of DNA. (1 mark)
- Give an example of a treatment for genetic disease. (1 mark)
- Match the lifestyle factor to the health condition that it increases the risk of. (4 marks)

Smoking	Stomach cancer
Obesity	Lung cancer
Drinking too much alcohol	Heart disease
Exposure to UV rays (sunlight)	Liver disease

- Has knowledge of lifestyle factors been more useful for: (1 mark)
(A) Diagnosis of disease
(B) Treatment of disease
(C) Prevention of disease
- Give three examples of technology that has helped to develop diagnosis. (3 marks)

Have you started to **C**onnect ideas with more synoptic questions?



Have you tested yourself in timed **E**xam conditions?



Edexcel GCSE History Revision Checklist

Topic	You should be able to:	Check	How confident are you about this?	Check
Medieval Britain (1066-1500)	Describe the significance of the Norman Conquest for the course of events. Describe the 'Three Ages of Feudalism' and the 'Three Ages of Man'. Describe how royal power was exercised and how it was controlled by the nobles. Describe the methods of religious disease (epidemic, endemic, pandemic, bubonic) and the role of the church in dealing with the plague. Describe the three main problems of famine and why there were hard to deal with.	<input type="checkbox"/>	Confident Fair Not confident	<input type="checkbox"/>
16th Century Britain (1500-1600)	Describe the relationship between religious reform and the rise of the nation state. Describe the role of the monarch in the 16th century. Describe the role of the monarch in the 16th century. Describe the role of the monarch in the 16th century. Describe the role of the monarch in the 16th century.	<input type="checkbox"/>	Confident Fair Not confident	<input type="checkbox"/>
17th Century Britain (1600-1700)	Describe the role of the physician, apothecary and barber-surgeon in treatment and care. Describe the role of the physician, apothecary and barber-surgeon in treatment and care. Describe the role of the physician, apothecary and barber-surgeon in treatment and care. Describe the role of the physician, apothecary and barber-surgeon in treatment and care.	<input type="checkbox"/>	Confident Fair Not confident	<input type="checkbox"/>
18th Century Britain (1700-1800)	Describe the role of the physician, apothecary and barber-surgeon in treatment and care. Describe the role of the physician, apothecary and barber-surgeon in treatment and care. Describe the role of the physician, apothecary and barber-surgeon in treatment and care. Describe the role of the physician, apothecary and barber-surgeon in treatment and care.	<input type="checkbox"/>	Confident Fair Not confident	<input type="checkbox"/>
19th Century Britain (1800-1900)	Describe the role of the physician, apothecary and barber-surgeon in treatment and care. Describe the role of the physician, apothecary and barber-surgeon in treatment and care. Describe the role of the physician, apothecary and barber-surgeon in treatment and care. Describe the role of the physician, apothecary and barber-surgeon in treatment and care.	<input type="checkbox"/>	Confident Fair Not confident	<input type="checkbox"/>