

Summer Term – Remotely Learning Plan

Year 9 – Biology (Separate Science)

Week:	Instructions to Parents/Students
28B – 20 th April	Primitive Cells – Describe and label a prokaryotic cell, research the history of bacteria (how many years have they been living on Earth? What did they look like / produce / need to survive?) List the differences between prokaryotic and eukaryotic cells. Research Archaea and suggest how they are different to bacteria. Use BBC Bitesize https://www.bbc.co.uk/bitesize/guides/z84jtv4/revision/11 and https://www.youtube.com/watch?v=wolrTR-PaAs to help you.
29A – 27 th May	Cell Division – Research and describe how cells divide by mitosis from https://www.bbc.co.uk/bitesize/guides/z2kmk2p/revision/1 . Draw the cell cycle and answer the questions on the “test” part of the BBC Bitesize page. Answer questions from https://www.proprofs.com/quiz-school/quizshow.php?title=Mitosis-Quiz&q=1 .
30B – 4 th May	Cell Differentiation – Define the term differentiation in biology and give an example of when this might happen. https://www.youtube.com/watch?v=IApHTTP3WY List 3 different types of cells in the body / or in a plant, and explain what features (or organelles) that cell has that makes it adapted for it’s function. Choose an organ system (e.g. Respiratory system), list the cell, tissue and organ in that system. Need help? - https://www.youtube.com/watch?v=UZwT-Jx8LzY
31A – 11 th May	Cancer – What is cancer? Research and draw a table on the differences between benign and malignant tumours. Define the term carcinogen and mutation in cells. List as many carcinogens as you can from reliable sources.
32B – 18 th May	Stem Cells 2 week project – Watch the following videos https://www.bbc.co.uk/bitesize/guides/z2kmk2p/video , https://www.youtube.com/watch?v=X0GMp8oM_2E and https://www.youtube.com/watch?v=Kh27eyjxvYM . What is a stem cell? Explain how stem cells can be used to treat diseases.
33A – 1 st June	Stem Cell Debate - What are the possible problems with using stem cells? Why might people object to the use of stem cells? Produce a written debate (Approx. 500 words) on the use of stem cells to treat diseases. Ensure you include both sides of the argument for and against, conclude your debate with your final decision. Think about the ethics behind the use of stem cells.
34B – 8 th June	Cell Development - Complete the test on BBC Bitesize https://www.bbc.co.uk/bitesize/guides/z2kmk2p/test . Complete the questions on https://moodle.beverleyhigh.net/mod/resource/view.php?id=18605&forceview=1 (Click Topic 1 - Stem cells and cell division.docx link to view the file – the mark scheme is at the bottom of the paper).

35A – 15 th June	Cells release energy – What is energy needed for in the body and in plants? What is aerobic respiration? Write the word and symbol equation for aerobic respiration. Where does this happen? How is aerobic respiration different to anaerobic respiration? https://www.bbc.co.uk/bitesize/guides/zm6rd2p/revision/1 – read the information and watch the video.
36B – 22 nd June	Living without oxygen – What is anaerobic respiration? Where does it occur? Why is it advantageous? Define fermentation. Why do yeast cells switch from aerobic respiration to anaerobic respiration in the process of making ethanol? Watch https://www.youtube.com/watch?v=HZtXLhm7ISA . https://www.bbc.co.uk/bitesize/guides/zm6rd2p/revision/1 – take the test.
37A – 29 th June	Binary Fission – Define Binary fission and explain how it is different to mitosis. https://www.thoughtco.com/bacterial-growth-curve-phases-4172692 – read the article on the bacterial growth curve – copy the graph and describe the different phases in your own words. Only some cultures enter the death phase, suggest why.
38B – 13 th July	Required Practical: Investigating Disinfectants 2 week project - Watch the video to describe what the aseptic technique is and list the ways we can prevent contamination when culturing microorganisms. https://www.youtube.com/watch?v=BkbLI2mAMP8 . Watch the video on the required microbiology practical - https://www.youtube.com/watch?v=sl2Dp5fNdDY – write a comprehensive method, with diagrams on the effects of antibiotics on bacterial growth. Explain how you would know which antibiotic is the most effective.

Useful resources:

exampapersplus.co.uk

BBC Bitesize

<https://www.physicsandmathstutor.com/biology-revision/gcse-aqa/>

AQA GCSE Biology (for past papers and markschemes)