**Year 9 (Phase 3/ Key Stage 3)**

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| **Week** | **Model of Learning** | **Topic** | **Curriculum Standard** | **Learning outcomes** | **Prior Learning** | **Cross curricular links** | **Resources** | **Home learning/ Homework** | **Assessment Platform/ Apps for****AFL** | **Key vocabulary** | **Ongoing reflection/****Modification** |
| **JANUARY** |
| **Week 16****(03/01/2021-07/01/2021)** | Distance learning | Revision | KS3 | **Construct an explanation for how an individuals’ variation might affect the survival of a larger population.****Describe the difference between environmental and inherited variation.**Students will learn the basic function of chromosomes and understand how they are read to tell a story about us.Explain how adaptations affect the survival of organisms.Explain how organisms become endangered or extinct. | Heredity, cell, DNA, Chromosome, Gene, Photosynthesis, Aerobic respiration | Maths, English, Social studies | <https://developingexperts.com/s/unit-library/curriculum/1>, <https://twitter.com/search?q=ENVIRONMENTAL%20VARIATION&src=typed_query><https://www.bbc.co.uk/bitesize/guides/z9gk87h/revision/2> | Century tech nuggets and STEM activities | Quizizz, Nearpod, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app. | Species, Extinct, Variations, Classification, Biotic & abiotic factors, Inherited, variations, Reproduction, Zygote, Fertilization, genes, interspecific, intraspecific, endangerment and extinction, biodiversity, adaptation, Chlorophyll, carbon dioxide, water, glucose, oxygen, photosynthesis |  |
| **Week 17****(10/01/2021-14/01/2021)** | Distance learning & Blended learning  | 9Bc Plant products | KS3 | Explain how and why plants make different substances. Explain the importance of nitrates. Recall and explain the resources needed for germination. | Carbohydrate, starch, protein, Photosynthesis, pollination, reproduction and seed dispersal | English, Social studies, Medical  | Developing experts unit link:<https://developingexperts.com/s/unit-library/units/94><https://developingexperts.com/s/unit-library/units/95><https://developingexperts.com/s/unit-library/curriculum/1><https://www.sciencevideos.co.uk/> | Century tech nuggets OR Exploring Science 9 Working Scientifically worksheet | Quizizz, Nearpod, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app. | Lipids, fats, oils, polymer, starch, phloem vessels, cellulose, nitrates, germination |  |
| **Week 18****(17/01/2021-21/01/2021)** | **Mid Year Assessment** |
| **Week 19****(24/01/2021-28/01/2021)** | **Mid Year Assessment** |
| **JANUARY/ FEBRUARY** |
| **Week 20****(31/01/2021-04/02/2021)** | Distance learning & Blended learning | 9Bd Growing crops9Be Protecting wild plants | KS3 | Describe how pests and human populations alter food supply. Explain ways in which farmers boost food production. Explain some ways in which plant varieties are created. | Selective breeding | English, Social studies, Medical | Developing experts unit link:<https://developingexperts.com/s/unit-library/units/94><https://developingexperts.com/s/unit-library/units/95><https://developingexperts.com/s/unit-library/curriculum/1>,<https://www.bbc.co.uk/bitesize/guides/zsf82hv/revision/2>, Exploring Science 9 textbook  | Century tech nuggets OR Exploring Science 9 Working Scientifically worksheet | Quizizz, Nearpod, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app. | Biofuel, biomass, decomposers, fertiliser, fungicides, greenhouses, herbicides, insecticides, nitrates, pests, yield |  |
| **Week 21****(07/02/2021-11/02/2021)** | Distance learning & Blended learning | 9Be Farming problems9Be Bias and validity | KS3 | Use models to explain changes in an ecosystem.Recognise the advantages and disadvantages of different farming methods. | N/A  | English, Social studies, Medical | Developing experts unit link:<https://developingexperts.com/s/unit-library/units/94><https://developingexperts.com/s/unit-library/units/95><https://developingexperts.com/s/unit-library/curriculum/1>, https://www.bbc.co.uk/bitesize/guides/ztwvk2p/revision/3 Exploring Science 9 textbook  | Century tech nuggets OR Exploring Science 9 Working Scientifically worksheet | Quizizz, Nearpod, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app. | Fertilizers, pesticides, varieties, global warming, carbon cycle, biodiversity |  |
| **Week 22****(14/02/2021-18/02/2021)** | Distance learning & Blended learning | 9Be Organic farming | KS3 | Use models to explain changes in an ecosystem.Recognise the advantages and disadvantages of different farming methods. | Organic farming  | English, Social studies.  | Developing experts unit link:<https://developingexperts.com/s/unit-library/units/94><https://developingexperts.com/s/unit-library/units/95><https://developingexperts.com/s/unit-library/curriculum/1>, https://www.bbc.co.uk/bitesize/guides/ztwvk2p/revision/3 Exploring Science 9 textbook  | Century tech nuggets OR Exploring Science 9 Working Scientifically worksheet | Quizizz, Nearpod, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app. | Natural fertilizers, organic foods, organic farms  |  |
| **Half Term Break for Students (21/02/2021-23/02/2021)** |
| **Week 23****(24/02/2021-25/02/2021)** | Distance learning & Blended learning | 9Ca Threat from disease9Ca Diseases | KS3 | Give examples of different kinds of diseases and describe how they are caused.Identify different parts of a virus and describe their functions.Compare the structures of bacteria and viruses. Explain why there is no virus kingdom. | Diseasesbacteria and viruses | English, Social studies, Medical | Developing experts unit link:<https://developingexperts.com/s/unit-library/units/44><https://developingexperts.com/s/unit-library/curriculum/1><https://www.sciencevideos.co.uk/>, https://www.bbc.co.uk/bitesize/guides/z372ng8/revision/1 Exploring Science 9 textbook  | Century tech nuggets OR Exploring Science 9 Working Scientifically worksheet | Quizizz, Nearpod, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app. | Infectious or communicable disease, deficiency disease, anaemia, polio, influenza, Ebola, malaria, chickenpox  |  |
| **FEBRUARY/ MARCH** |
| **Week 24****(28/02/2021-04/03/2021)** | Distance learning & Blended learning | 9Ca Veterinary science 9Cb Control systems | KS3 | Explain how viruses cause disease. Explain how viruses take over cell function.Describe how the nervous system works.Describe how the hormone system works. | Virusesnervous systembrain  | English, Social studies | Developing experts unit link:<https://developingexperts.com/s/unit-library/units/44><https://developingexperts.com/s/unit-library/curriculum/1><https://www.sciencevideos.co.uk/>, <https://www.bbc.co.uk/bitesize/guides/zprxy4j/revision/1>Exploring Science 9 textbook  | Century tech nuggets OR Exploring Science 9 Working Scientifically worksheet | Quizizz, Nearpod, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app. | Brain, spinal cord, nerves, stimuli, receptor cells, sense organs, impulses, effectors, glands, hormones, target cells  |  |
| **Week 25****(07/03/2021-11/03/2021)** | Distance learning & Blended learning | 9Cc Treating diseases9Cc Median and quartiles | KS3 | Describe the stages of testing new medicines.Describe the use of control groups and placebos in testing new medicines.  | Drugs  | English, Social studies, Medical | Developing experts unit link:<https://developingexperts.com/s/unit-library/units/44><https://developingexperts.com/s/unit-library/curriculum/1><https://www.sciencevideos.co.uk/>, https://www.bbc.co.uk/bitesize/guides/z2kvw6f/revision/5 Exploring Science 9 textbook  | Century tech nuggets OR Exploring Science 9 Working Scientifically worksheet | Quizizz, Nearpod, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app. | Drug, medicine, antivirus, antibiotics, vaccines, side effects, control group  |  |
| **Week 26****(14/03/2021-18/03/2021)** | Distance learning & Blended learning | 9Cd Ecology | KS3 | Identify suitable apparatus for measuring distribution and abundance. Use data from abundance investigation to estimate population size.  | Habitat | English, Social studies, Medical | Developing experts unit link:<https://developingexperts.com/s/unit-library/units/44><https://developingexperts.com/s/unit-library/curriculum/1><https://www.sciencevideos.co.uk/>, Exploring Science 9 textbook  | Century tech nuggets OR Exploring Science 9 Working Scientifically worksheet | Quizizz, Nearpod, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app. | Abundance, population size, sample area, quadrat, distribution, accuracy |  |
| **Week 27****(21/03/2021-25/03/2021)** | Distance learning & Blended learning | 9Ce In and out9Ce Combatting pandemics | KS3 | Give example of how surface area: volume ratio affects organisms.Describe how osmosis happens.  | Diffusion, Movement of the molecules, cell membrane  | English, Social studies, Medical, Cell biology | Developing experts unit link:<https://developingexperts.com/s/unit-library/units/44><https://developingexperts.com/s/unit-library/curriculum/1><https://www.sciencevideos.co.uk/>, Exploring Science 9 textbook  | Century tech nuggets OR Exploring Science 9 Working Scientifically worksheet | Quizizz, Nearpod, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app. | surface area: volume ratio, diffusion, osmosis, partially permeable, solvent |  |
| **Spring Break****(28/03/2021-08/04/2021)** |