**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 crops  9Be 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 problems  9Be 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 disease  9Ca 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. | Diseases  bacteria 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. | Viruses  nervous system  brain | 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 diseases  9Cc 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 out  9Ce 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)** | | | | | | | | | | | |