Science Year 6 SOL

Yr 6	1.1	WDIKA Classification and Microorganism	Classify living things into broad groups according to observable characteristics and based on similarities and differences Give reasons for classifying plants and animals based on specific characteristics	Know the disadvantages and advantages of microorganism	Understand how our body fights the diseases How can we prevent diseases	Importance of vaccination	Assessment	Why we need to classify things Microorganisms can be useful and harmful Diseases can be prevented	refined immunisation parasite Linnaean classification bacteria non-flowering plants microorganism
	Skills—Sc Enquiry Create branching databases (tree diagrams) and keys to enable others to name livings things and objects Be able to talk about the features that objects and living things share and do not share based on the information in the key etc.					**Knowledge** Be able to give examples of microorganisms being useful and harmful			
	1.2	WDIKA Evolution and Inheritance	Know the different adaptations in animals and plants to adapt to their habitat	Understand what is evolution Explain how evolution happens Why animals become extinct	Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents	How evolution happens? -what reason animals become extinct? Know the importance of study of fossils	Assessment	Understand why and how living things have changed overtime and that fossils provide information about living things that inhabited the Earth million years ago How animals are adapted to their environment	hybrid adaptation variation genetics mutation fossils evolution
	Skills—Sc Enquiry Choose suitable sources to use Be able to answer their questions using scientific evidence gained from a range of sources					**Knowledge** Be able to explain how fossils provide evidence of evolution			

Yr 6	2.1	WDIKA Electricity –A bane or a boon	Electrical safety	Use recognised symbols when representing a simple circuit	Investigate materials that can used for electrical wires	Investigate variables affecting the flow of current in a circuit	Investigate factors affecting loudness of a buzzer	Assessment	Know that we can change the brightness of a bulb by changing length, material or thickness of a wire.	potency resistance battery voltage electrical insulator electricity switch
	Skills—Sc Enquiry Ask a range of questions and identify the type of enquiry that will help to answer the questions. Ask further questions based on results. Recognise and control variables where necessary						**Knowledge** Be able to recognise symbols when representing a simple circuit			
	2.2	WDIKA What is reflection and refraction	Explain how we see things Understand how the human eye works	Use the idea that light travels in straight lines to explain how eclipses formed and explain why shadows have the same shape as the objects that cast them	Know how simple optical instruments work, e.g. periscope, telescope, microscope, magnifying glass and periscope.	Investigate reflection And mirrors	Assessment	Understand that the light travels in a straight line Know three differences between solar and lunar eclipses Why does my shadow change during the course of a day?	phenomena contingency ray reflection refraction mirror dispersion
	Skills—Sc Enquiry Be able to answer their questions using scientific evidence gained from a range of sources Explain their degree of trust in their results e.g. precision in taking measurements, variables that may not have been controlled, and accuracy of results						**Knowledge** Be able to justify light travels in a straight-line using examples from real life			

Yr6	3.1 /3. 2	WDIKA Circulatory system in Humans	Understand how blood is circulated in the body	Know the difference between arteries and veins	Know the functions of blood, blood vessels and the heart And how to keep your heart healthy	Plan and investigate benefits of exercise for different purposes associated with fitness and health	Research on causes of high cholesterol and its impact on the circulatory system	Assessment	Identify and name the main parts of the human circulatory system Describe the functions of heart, blood vessels and blood Recognise the impact of diet, exercise, drugs and lifestyle on the way the body functions	malnutrition Intoxication aerobics cardiovascular-lar nutrients oxygenated deoxygenated circulatory system blood
	Skills—Sc Enquiry Be able to answer their questions using scientific evidence gained from a range of sources Be able to talk about their degree of trust in the sources they used Be able to answer their question, describing causal relationships							**Knowledge** Be able to recognise factors that affect proper functions of a body		