

BMS Science - Year 11 Entry Level School Curriculum Map 2024-2025

Topic Title	Topic overview	Knowledge and Skills	Assessment	Key words	
<u>Autumn Term</u> 1) Science and the Universe	This unit enables learners to explore themes connected with space and our Universe. - Know about the structure of galaxies and our Solar System. - Know about galaxies and our Solar System - Know how we can find out about the Universe. - Know ways of finding out about the Universe. - Know factors that affect the surfaces of planets and moons.	- Describe the solar system - Define a galaxy and Identify different types of galaxies. - Identify images of the sun using different parts of the electromagnetic spectrum. - State advantages of using space based telescopes over earth based telescopes. - State how craters have formed on the moon and planets - Identify how different factors have affected the surface of planets and moons - Investigating the factors that affect the formation of a crater.	Teacher assessment through a variety of activities - quizzes, word wall, games, questioning, role play, speaking activities, card sorts, photographs of learners carrying out activities, storyboards, presentations/posters, evaluation sheets and testing.	planets Venus Mars Saturn Neptune asteroids atmosphere galaxy star comet telescope crater	Mercury Earth Jupiter Uranus dwarf planet orbit model moon sun satellite Universe
<u>Spring Term</u> 2) Variation and adaptation	This unit aims to help learners to understand how organisms are adapted to their environment and how the diversity of organisms in an environment can be protected. - Know about the range of organisms in an environment. - Know about factors that affect the range of organisms in an environment - Understand that organisms are interdependent	- Defining and describing habitats and naming organisms that live in each habitat. - Identify natural factors that affect the range of organisms found in an environment. - Identify variation between organisms and state causes of variation between organisms. - Identify and describe ways in which organisms are adapted to their environment - Identify ways in which human activity can affect the range of organisms found in an environment - Describe how external factors have affected a particular plant. - Describe how external factors have affected a particular animal. - Construct a simple food chain, identifying predator and prey - Identify in a food web: producers consumers carnivores herbivores omnivores	Teacher assessment through a variety of activities - quizzes, word wall, games, questioning, role play, speaking activities, card sorts, photographs of learners carrying out activities, storyboards, presentations/posters, evaluation sheets and testing.	habitat competition environment camouflage gills blubber variation endangered species food chain producer carnivore omnivore prey sweep net pooter	organisms natural factors adaptations streamlined surface area climate inherited extinct food web consumer herbivore predator key pitfall trap quadrat

	Be able to identify organisms in a particular habitat	- State how change affects species in a food web - Use a simple identification key to identify some organisms found in a habitat - Identify different organisms in a habitat - Present information to show the organisms identified - Present information to show range and numbers of organisms identified		
<u>Summer Term</u> 3) Complete outstanding pathways work and consolidating practical skills	This unit helps learners to consolidate and continue to develop essential practical skills. It will show them how the skills they have developed can be used in everyday life.	- Safety and controlling risks and hazards - Asking questions - Selecting and using appropriate equipment including scales, pipette, microscope, measuring cylinders, filter funnel, thermometer and Bunsen burner - Observation - Collecting and Measuring - Accurately measuring the volume of a liquid - Measuring length - cm, mm, m - Measuring mass -g, Kg - Measuring time - minutes, seconds - Measuring temperature - Measuring current and voltage - Using a microscope - Collecting and Recording data - Making sense of data - presenting, analysing and interpreting to draw conclusions - Evaluating - Using practical skills in everyday life	Teacher observation Teacher assessment Student peer and self assessment.	compare data describe equipment findings observe measure standard units pattern seeking repeat readings relationship method variable record results scientific enquiry table prediction bar chart line graph conclusion