Dukesgate Academy
The best in everyone™
Part of United Learning

Science Long Term Plan

	Year 1	Year 2	Year 3	Year 4	Year 5	Year6
Autumn	**Biology: Plants** Identifying and naming common plants and describing basic structures	**Biology: Plants** Plants grow from seeds and require water, light and a suitable temperature	**Chemistry: Rocks** Comparison of types of rocks and how fossils are formed.	**Biology: Classifying Organisms** Introduction to classifying animals and their environment	**Chemistry** Separating mixtures Identifying and separating mixtures; difference between reversible and non-reversible changes	**Physics: Electricity** Investigating variations in series and parallel circuits, and how electricity is generated
	Biology/Physics: Seasonal changes Observing changes across four seasons and describing weather	**Biology: Needs of Animals** Animals need water, food and air need survive and have offspring	**Physics: Light** The relationship between light and how we see. The formation of shadows.	**Biology: Food and digestion** The human digestive system and simple food chains	**Biology, Chemistry, Physics:** Energy Introducing the concept of energy stores and energy transfers, and relating this to prior knowledge	**Biology: Evolution & inheritance** Fossils; introduction to the idea that adaptation may lead to evolution
Spring	**Chemistry: Everyday materials** Distinguishing objects from the materials it's made from, and describing simple properties	**Chemistry: Uses of everyday materials** comparison: object's material with its use; impact of bending, twisting etc. on solid objects	**Biology: Living organisms** The role of muscles and skeletons. The importance of nutrients.	**Chemistry: States of matter** Solids, liquids and gases and the role of temperature in changing states	**Biology: Life cycle** Life cycle of mammal, amphibian, insect and bird Reproduction processes	**Physics: Light** How light travels and is reflected, and how this allows us to see
		Biology: Living things and their habitats Basic introduction to habitats and micro-habitats, and simple food chains	**Biology: Plants** The key features of flowering plants and what they need to survive.	**Physics: Sounds** Relationship between strength of vibrations and volume of sound	**Biology: Human development** Human development to old age	**Biology: Further classification** Further classification of living organisms based on characteristics
Summer	**Biology: Animals** Identify/ name: fish, amphibians, reptiles, birds and mammals; recognising carnivores, herbivores and omnivores	**Chemistry:** Solids, liquids and gases Understanding how the same substances can exist as solids, liquids and gases	**Physics: Forces and motion** Magnets have poles which attract or repel Physics	**Physics: Electricity** Simple series circuits	**Physics: Forces** Gravity, air and water resistance and friction. Introduction to pulleys	**Biology: Functions of the human body** Human circulatory system; transport of nutrients within the body
	Biology: Humans: Body parts and senses		**Friction & magnetism:** Contact and non-contact forces, including friction and magnetism	**Chemistry:** Properties of materials Considering physical and chemical properties	**Physics: Earth and space** Movement of planets and the moon and relationships to day and night	**Chemistry: Chemical reactions** Identifying physical and chemical changes