

Science	
Term and Topic	Coverage
LKS2 (a) Term 1 Identifying Plants	Students will be taught to: <ul style="list-style-type: none"> • Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees • Identify and describe the basic structure of a variety of common flowering plants, including trees • Observe and describe how seeds and bulbs grow into mature plants • Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy • Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers • Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant • Investigate the way in which water is transported within plants • Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal
LKS2 (a) Term 2 My Body	Students will be taught to: <ul style="list-style-type: none"> • Identify, name and label body parts • Explore what parts of our bodies we use for different activities • Find out about the five senses, in particular the sense of sight • Explore the sense of touch • Explore the sense of smell • Explore the sense of taste • Explore the sense of sound
LKS2 (a) Term 3 Seasonal Changes	Students will be taught to: <ul style="list-style-type: none"> • Observe changes across the 4 seasons • Observe and describe weather associated with the seasons and how day length varies • Find out about different seasons and how to describe them • Find out about the seasons and how they are different • Find out about how animals are affected by the seasons • Find out about how humans are affected by the seasons • Find out about the day length is affected by the seasons • Investigate the weather during the seasons

<p>LKS2 (a) Term 4</p> <p>Animals Including Humans</p>	<p>Students will be taught to:</p> <ul style="list-style-type: none"> • Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals • Identify and name a variety of common animals that are carnivores, herbivores and omnivores • Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets) • Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense • Notice that animals, including humans, have offspring which grow into adults • Find out about and describe the basic needs of animals, including humans, for survival (water, food and air) • Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene • Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat • Identify that humans and some other animals have skeletons and muscles for support, protection and movement • Describe the simple functions of the basic parts of the digestive system in humans • Identify the different types of teeth in humans and their simple functions • Construct and interpret a variety of food chains, identifying producers, predators and prey • Describe the changes as humans develop to old age • Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood • Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function • Describe the ways in which nutrients and water are transported within animals, including humans
<p>LKS2 (a) Term 5</p> <p>Exploring Everyday Materials</p>	<p>Students will be taught to:</p> <ul style="list-style-type: none"> • Identify a variety of materials and sort them according to a variety of criteria • Identify natural and man-made materials • Identify that some materials can change shape by squashing, bending, stretching and twisting, and others can't • Identify the suitability of metal and plastic for a variety of purposes • Identify different products that can be made from wood and their features and purposes • Identify different materials that are used for the same product • Identify material inventions and discoveries

<p>LKS2 (a) Term 6</p> <p>Growth and Survival</p>	<p>Students will be taught to:</p> <ul style="list-style-type: none"> • Find out about the offspring of a variety of different animals • Find out about the different ways in which animals reproduce • Explore how humans grow as they get older • Find out what animals, including humans, need to survive • Explore the environment as a factor of survival for animals, including humans • Find out how to eat a healthy, balanced diet • Find out why exercise is important to keep our bodies healthy
<p>LKS2 (b) Term 1</p> <p>Identifying Animals</p>	<p>Students will be taught to:</p> <ul style="list-style-type: none"> • Identify and name a variety of common animals • Identify and name a variety of common UK mammals • Identify and compare a variety of common UK birds and reptiles • Identify and compare a variety of common UK fish and amphibians • Identify and sort carnivores, herbivores and omnivores • Take care of animals • Collect data about animals and answer questions
<p>LKS2 (b) Term 2</p> <p>Everyday Materials</p>	<p>Students will be taught to:</p> <ul style="list-style-type: none"> • Identify a variety of common materials • Distinguish between an object and the material from which it is made • Describe materials according to their properties • Describe why some materials suit certain objects better than others • Carry out an experiment to find out which materials are waterproof • Recap what we have learnt about everyday materials
<p>LKS2 (b) Term 3</p> <p>Living in Habitats</p>	<p>Students will be taught to:</p> <ul style="list-style-type: none"> • Identify things that are living, things that are dead and things that have never been alive • Understand that living things need to live in suitable habitats • Explore the plants and animals that live in seaside habitats • Explore plants and animals in an unfamiliar habitat • Explore and describe a micro-habitat • Explore food chains in a habitat

<p>LKS2 (b) Term 4</p> <p>Plants</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Observe closely using simple equipment by recording observations of a variety of plants in the local environment • Observe and describe how seeds and bulbs grow into mature plants by planting seeds and bulbs • Observe and describe how seeds and bulbs grow into mature plants by understanding the life cycle of plants • Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy by comparing the growth of seedlings under different conditions • Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy by explaining what conditions plants need to grow well • Observe and describe how seeds and bulbs grow into mature plants by comparing the growth of seeds and bulbs
<p>LKS2 (b) Term 5</p> <p>Rocks</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Compare different kinds of rocks based on their appearance in the context of understanding the difference between natural and human-made rocks • Make systematic and careful observations by examining different types of rocks • Group together different kinds of rocks on the basis of their simple physical properties in the context of natural rocks. • Describe in simple terms how fossils are formed when things that have lived are trapped within rock by explaining the fossilisation process and by comparing fossils to the animals they belong to • Identify changes related to simple scientific ideas in the context of theories about fossils • Recognise that soils are made from rocks and organic matter by explaining how soil is formed • Make systematic and careful observations in the context of investigating the permeability of different soils • Record findings using simple scientific language. Reporting on findings from enquiries, including presentations of results and conclusions
<p>LKS2 (b) Term 6</p> <p>Super Scientists</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Investigate the effect gravity has on everyday objects • Investigate what happens to light when it passes through different transparent objects • Investigate whether sound can pass through materials • Investigate our senses and reflexes • Investigate how germs are transferred by touching things • Investigate electrical circuits to make a lightbulb light up

<p>UKS2 (a) Term 1</p> <p>Scientists and Inventors</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Find out how plants need water, light and a suitable temperature to grow and stay healthy in the context of exploring how plants grow in greenhouses, including in the biomes at the Eden Project • Find out how plants need water, light and a suitable temperature to grow and stay healthy in the context of comparing plant growth in and out of a greenhouse • Identify and describe the basic structure of common flowering plants by observing and sketching a range of common plants • Observe closely using simple equipment by using a magnifying glass to sketch details of different plants • Use their observations and ideas to suggest answers to questions in the context of considering whether doctors are scientists. • Describe the importance for humans of exercise, of eating the right amounts of different types of food, and hygiene • Describe the importance of hygiene to humans in the context of investigating Louis Pasteur's work on how germs spread • Use their observations and ideas to answer simple question in the context of investigating how germs spread and the effect of hand washing • Find out about people who have developed new materials in the context of learning about Charles Macintosh • Identify and compare the suitability of a variety of everyday materials for particular uses in the context of testing materials to find the most suitable material for a waterproof coat • Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain • Observe closely, using simple equipment in the context of investigating the effects of pesticides in water • Use their ideas to answer questions in the context of answering questions on renewable energy and the invention of wind turbines
<p>UKS2 (a) Term 2</p> <p>Light</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Recognise that we need light in order to see things and that dark is the absence of light • Notice that light is reflected from surfaces • Use a mirror to reflect light and explain how mirrors work • Recognise that light from the sun can be dangerous and that there are ways to protect our eyes • Recognise that shadows are formed when the light from a light source is blocked by a solid object • Find patterns in the way that the size of shadows change

<p>UKS2 (a) Term 3</p> <p>Forces and Magnets</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Notice that some forces need contact between two objects by identifying the different types of forces acting on objects • Compare how things move on different surfaces • Notice that magnetic forces can act at a distance and attract some materials and not others by sorting materials • Compare and group materials according to whether they are magnetic by sorting materials • Observe how magnets attract or repel each other and attract some materials and not others • Describe magnets as having two poles and to predict whether two magnets will attract or repel each other, depending on which poles are facing • Observe how magnets attract or repel each other and attract some materials and not others
<p>UKS2 (a) Term 4</p> <p>Living Things and Their Habitats</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Explore and compare the differences between things that are living, dead, and things that have never been alive • Use their observations and ideas to suggest answers to questions by explaining how they know something is living, dead or has never been alive • Identify and name a variety of plants and animals in their habitats • Identify and classify, and sort objects into categories, by sorting objects that are living, dead and have never been alive • Identify and name a variety of plants and animals in their habitats, including microhabitats • Gather and record data to help in answering questions by investigating the preferred habitat of minibeasts • Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants • Ask simple questions and recognise that they can be answered in different ways • Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other • Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food

<p>UKS2 (a) Term 5</p> <p>States of Matter</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Sort and describe materials • Investigate gases and explain their properties • Investigate materials as they change state • Explore how water changes state • Investigate how water evaporates • Identify and describe the different stages of the water cycle
<p>UKS2 (a) Term 6</p> <p>Animals Including Humans</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Describe the simple functions of the basic parts of the digestive system in humans • Identify and name parts of the human digestive system. • Use straightforward scientific evidence to answer questions • Identify the different types of teeth in humans and their simple functions • Identify differences, similarities or changes related to simple scientific ideas and processes • Set up simple practical enquiries, comparative and fair tests • Make systematic and careful observations by observing the changes that occur in their enquiry or test • Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions • Construct and interpret a variety of food chains, identifying producers, predators and prey by understanding food chains and the role of different plants and animals within them
<p>UKS2 (b) Term 1</p> <p>The Environment</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Measure the melting of ice in a comparative test • Perform a test and draw a conclusion • Sort items for recycling based on their materials • Suggest ways we can reduce, reuse and recycle • Work in a group to investigate the answer to a question • Take surveys and use the information to help answer a question • Ask and answer questions about the rainforest • Identify and classify rainforest animals • Set up a test and record the results • Accurately measure water and record my measurements • Ask and answer questions about endangered animals

<p>UKS2 (b) Term 2</p> <p>Uses of Everyday Materials</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses • Identify and classify the uses of everyday materials • Gather and record data to help in answering questions • Compare the suitability of different everyday materials • Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching • Explain the process of recycling • Find out about people who have developed new materials
<p>UKS2 (b) Term 3</p> <p>Growing Plants</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Understand that different seeds grow into different plants and to describe them • Understand that plants can be grown from bulbs • Be able to explain why and how seeds are dispersed • Plan, carry out and evaluate an investigation into the conditions that affect germination • Observe and describe how a plant changes as it matures
<p>UKS2 (b) Term 4</p> <p>Sound</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Identify how sounds are made, associating some of them with something vibrating • Find patterns between the volume of a sound and the strength of the vibrations that produced it • Recognise that vibrations from sounds travel through a medium to the ear • Find patterns between the pitch of a sound and features of the object that produced it • Recognise that sounds get fainter as the distance from the sound source increases • Investigate ways to absorb sound • Make a musical instrument to play different sounds

<p>UKS2 (b) Term 5</p> <p>Electricity</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Report on findings, including oral and written explanations in the context of preparing a presentation on how electricity is generated • Identify common appliances that run on electricity • Identify complete and incomplete circuits • Identify and sort materials into electrical conductors or insulators • Explain how a switch works and why they are needed. • Record and report on an investigation
<p>UKS2 (b) Term 6</p> <p>Living Things and Their Habitats</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Recognise that living things can be grouped in a variety of ways by sorting living things into a range of groups • Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment • Identify differences, similarities or changes related to simple scientific ideas and processes by identifying vertebrates by their similarities and differences • Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment • Use evidence to identify an invertebrate • Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment • Recognise that environments can change and that this can sometimes pose dangers to living things • Show the characteristics of living things in a table and a key • Describe environmental dangers to endangered species
<p>KS3 (a) Term 1</p> <p>How Plants Grow</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Recap the main features of flowering plants, then learn about how roots grow, and what their functions are. • How water, absorbed by the roots is distributed around the plant via the stem • Learn how plants make their own food using air and sunlight. • Identify the parts of a flower, and how pollination occurs. • Learn how the ovaries of flowering plants grow to form seeds, and how they may be dispersed in a variety of ways.

	<ul style="list-style-type: none"> • Learn about the structure of seeds and how plants grow from them.
<p>KS3 (a) Term 2</p> <p>Living In Environments</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Identify habitats, and consider why their conditions are important for the animals living in them • Organise animals into groups according to some of their characteristics • Use classification keys to identify and sort animals into groups • Identify a range of animals from different environments using classification keys • Use Venn Diagrams and Carroll diagrams to sort plants according to some of their characteristics • Consider ways in which animals living in environments are affected by human behaviour, then suggest ways in which we can help protect and sustain habitats
<p>KS3 (a) Term 3</p> <p>Rocks, Fossils and Soils</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Learn where rocks come from, then consider differences between naturally occurring rocks and man-made objects which are similar to rocks • Consider ways in which rocks can be sorted according to different criteria • Learn about erosion • Consider what sources may help them find out about a rock's uses • Learn about soil: how it is formed and its uses • Learn about how fossils are formed • Study images of fossilised remains and discuss what can be learned about the animal by doing this
<p>KS3 (a) Term 4</p> <p>Life Cycles</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Describe the process of sexual reproduction in flowering plants • Describe the process of asexual reproduction in plants • Describe the process of sexual reproduction in animals • Observe and compare the life cycles of animals in our local environment with other animals around the world • Compare how different animals reproduce and grow • Find out about the work of naturalists

<p>KS3 (a) Term 5</p> <p>Forces and Magnets</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Identify forces as a push or a pull that will create, or stop a movement • Investigate how the texture of a surface affects how things move across them • Exert a force on certain objects without touching them • Recap on what they already know about magnets, before beginning to discuss and predict what other materials could be attracted to magnets • Discuss how magnets are used in everyday places as well as some more specific ways
<p>KS3 (a) Term 6</p> <p>Eating and Digestion</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Identify similarities and differences between the diets of different organisms • Organise a variety of organisms using food chains • Identify different types of human teeth and their functions • About what happens to teeth during the lifetime of humans, and consider ways in which we can ensure our teeth stay healthy • Learn about the digestive system: its organs and their functions • About the organs of the digestive system and their functions
<p>KS3 (b) Term 1</p> <p>Earth and Space</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Describe the movements of the Sun, Earth and Moon • Explore how the rotation of Earth creates day and night • About how Earth's tilt creates seasons • About the phases of the Moon • How theories about our solar system have changed • Investigate the planets in the solar system
<p>KS3 (b) Term 2</p> <p>Forces In Action</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • That unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object • Identify the effects of friction acting between moving surfaces • Identify and explain the effects of air resistance • Identify and explain the effects of water resistance • Recognise that levers and pulleys allow a smaller force to have a greater effect • Recognise that gears allow a smaller force to have a greater effect

<p>KS3 (b) Term 3</p> <p>Classifying Organisms</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Recap ways of grouping organisms according to their characteristics • Explore ways of distinguishing between organisms that have similar characteristics • Classify plants according to their characteristics • Find out about Carl Linnaeus and his classification system • Explore what micro-organisms are and how they can be grouped • Identify and classify organisms in the local area
<p>KS3 (b) Term 4</p> <p>Evolution and Inheritance</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents • Identify how animals and plants are adapted to suit their environment in different ways • Understand that adaptation of plants and animals to suit their environment may lead to evolution • Find out about how the work of scientists has helped develop our understanding of the process of evolution • Recognise that living things have changed over time and that a number of factors can affect a species' evolution • Understand how humans have evolved over time, and how human behaviour can affect change in species over time
<p>KS3 (b) Term 5</p> <p>Healthy Bodies</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Find out how scientific ideas about food and diet were tested in the past and how this has contributed to our knowledge of a balanced diet • Investigate some different food groups and find out why a variety of foods is important for a healthy diet • Find out how nutrients and water are transported in the human body • Investigate what happens to the heart when we exercise and why • Investigate how muscles move the skeleton and how muscle activity requires increased blood flow • Investigate the effects of tobacco, alcohol and other drugs • Evaluate what we can do to keep our bodies healthy
<p>KS3 (b) Term 6</p> <p>Changes and Reproduction</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Recognise the stages of growth and development in humans • Know the stages in the gestation period of humans and compare them to other animals • Recognise the stages of development during childhood and understand the needs of children at those stages

	<ul style="list-style-type: none"> • Understand the initial changes inside and outside of the body during puberty • Know the changes that occur during puberty and how they differ for boys and girls • Understand how the body changes during adulthood and old age
<p>KS3 (c) Term 1</p> <p>States Of Matter</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Compare and group materials together, according to whether they are solids, liquids or gases • Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C) • Associate the rate of evaporation with temperature • Make systematic, careful and accurate observations and measurements and report on findings from enquiries by displaying results and conclusions • Identify the part played by evaporation and condensation in the water cycle
<p>KS3 (c) Term 2</p> <p>Changing Sound</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Identify how sounds are made, associating some of them with something vibrating • Find patterns between the volume of a sound and the strength of the vibrations that produced it • Recognise that vibrations from sounds travel through a medium to the ear • Recognise that sounds get fainter as the distance from the sound source increases
<p>KS3 (c) Term 3</p> <p>Properties and Changes Of Material</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Compare and group together everyday materials on the basis of their properties, including their hardness, transparency and response to magnets • Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic • Compare and group together everyday materials on the basis of their thermal conductivity • Know that some materials will dissolve in liquid to form a solution • Compare and group together everyday materials on the basis of their solubility

<p>KS3 (c) Term 4</p> <p>Health and Movement</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • About gathering, recording, classifying and presenting data in a variety of ways to help in answering questions. • Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat. • Sort foods into food groups and find out about the nutrients that different foods provide • Identify that humans and some other animals have skeletons and muscles for support, protection and movement. • Asking relevant questions and using different types of scientific enquiries to answer them
<p>KS3 (c) Term 5</p> <p>Light and Shadow</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Recognise that we need light in order to see things and that dark is the absence of light • Notice that light is reflected from surfaces • Recognise that light from the sun can be dangerous and that there are ways to protect our eyes • Recognise that shadows are formed when the light from a light source is blocked by a solid object • Find patterns in the way that the size of shadows change
<p>KS3 (c) Term 6</p> <p>Circuits and Conductors</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Report on findings, including oral and written explanations • Identify common appliances that run on electricity • Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions • Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers • Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery • Make systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. • Recognise some common conductors and insulators, and associate metals with being good conductors

<p>KS4 (a) Term 1</p> <p>The Human Body</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • that cells are the basic structural unit of all organisms • Label the main structures of cells • Describe the organisation of multicellular Organisms • Compare animal and plant cells stating the similarities and differences
<p>KS4 (a) Term 2</p> <p>The Human Body</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Know the structure and functions of systems in the human body • Outline the structure and functions of the gas exchange system in the human body • Outline the mechanism of breathing to move air in and out of the lungs • Outline the structure and functions of the circulatory system in the human body • Outline the structure and functions of the nervous system in the human body
<p>KS4 (a) Term 3</p> <p>Fuels and Pollution</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Recognise what fuel is • Outline what a fuel is • Give reasons for why fuel is needed • Give examples of different types of fuel • Understand what pollution is • Outline the general composition of the Earth's Atmosphere • List examples of Air pollution and Water pollution • Outline the negative effects of Air pollution and Water pollution
<p>KS4 (a) Term 4</p> <p>Fuels and Pollution</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Understand what pollution is • Give a definition of climate change • Comment on the evidence, and its limitations, for climate change • Outline ways to minimise or prevent Air pollution and Water pollution • Know about alternative energy sources • State the difference between renewable and non-renewable energy sources • Identify a minimum of three alternative energy sources

<p>KS4 (a) Term 5</p> <p>Exploring Our Universe</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Know about our solar system • Give a definition of Planets, Moons and Stars • Describe how the Earth moves around the sun • Outline why we have day and night • List the different planets in our solar system • Create a model or image of the solar system • Outline key differences between Earth and the Moon
<p>KS4 (a) Term 6</p> <p>Science Investigation Skills</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Be able to plan a science investigation • State an hypothesis for a given question • Outline the investigation method to be used • Be able to work safely • Maintain the health and safety and welfare of self and others • Select, check and use equipment correctly • Correctly identify and report any hazards • Be able to carry out a science investigation • Identify the required equipment • Set up the proposed investigation • Carry out an experiment to test the hypothesis
<p>KS4 (b) Term 1</p> <p>Human Systems For Survival</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Recognise the role of the cardiovascular system • Outline the structure of the human circulatory system • Describe how blood transports oxygen and carbon dioxide • Know the human digestive system • Identify the main organs of the digestive System • Outline the process of digestion of carbohydrates, proteins and fats • Indicate how digested food is absorbed by the body • State what happens to the waste products of digestion • Identify the main organs of the breathing system

<p>KS4 (b) Term 2</p> <p>Human Systems For Survival</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Know about the human breathing system • Outline the mechanism of breathing and how gases are exchanged in the lungs • Know about the nervous and hormonal control systems in the human body • Outline the key concepts of thr Nervous coordination in humans and Hormonal control in humans • Identify the basic structure of the nervous system and state its function • Describe the structure and function of a reflex arc • Give a simple definition of homeostasis • Give examples of homeostasis
<p>KS4 (b) Term 3</p> <p>Human Reproductive Systems</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Understand how the male and female reproductive systems work • Outline the basic structure and function of the male and female reproductive systems • List some of the changes that occur in the human body during puberty • Give a definition of conception • Give examples of methods of contraception, including: Hormonal and Non-hormonal • Understand the role genetics plays in the human body • Give a definition for the genome • Describe how the environment can affect the genome
<p>KS4 (b) Term 4</p> <p>Forces In Action</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Know about forces • Describe forces in terms of pushes/pulls, stretching/squashing, friction and resistance • Demonstrate using force arrows in diagrams including showing unbalanced forces • Describe a moment as the turning force • Predict the movement/lack of movement in terms of balanced and unbalanced forces • State that forces are measured in Units • Give examples of non-contact forces/fields, including: a) Gravity b) Magnetic c) Electrostatic
<p>KS4 (b) Term 5</p> <p>Forces In Action</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Be able to calculate speeds and acceleration Speeds • Use the formula $\text{speed} = \frac{\text{distance}}{\text{time}}$ to calculate Speeds • Describe acceleration as unbalanced forces • Calculate the speed of acceleration for a given Movement

	<ul style="list-style-type: none"> • Identify key moments on a distance time graph • Define the term relative motion • Know about pressure in solids, liquids and gases • Outline what can affect the pressure in a) Solids b) Liquids c) Gases • Outline what is meant by the term atmospheric
<p>KS4 (b) Term 6</p> <p>Energy Use</p>	<p>Students are taught to:</p> <ul style="list-style-type: none"> • Know about different sources of energy • Outline reasons for increasing demand for energy • List renewable sources of energy • Identify non-renewable sources of energy • Know advantages of using renewable energy • Outline reasons for using renewable energy • Identify renewable sources of energy to meet future demands • Know about reducing energy use • Outline what energy is used for • List ways energy is wasted