Lewknor Medium-Term Plan						
Science – Year 1/2 - Cycle A						
Progression from EYFS						
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Theme/Unit	Animals including Humans Yr.1	Seasonal change (Autumn and Winter)	Everyday materials	Seasonal change (Spring and Summer)	Plants Yr.1	Scientists and Inventors
Week 1	**Observing Animals** To identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.	**Summer to Autumn** To observe changes across the four seasons.	**Naming Materials** To identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock by matching a material to its name.	**Winter to Spring** To observe changes across the four seasons.	**Making Observations** To identify and describe the basic structure of a variety of common flowering plants, including trees.	**Lego** To describe the simple physical properties of a variety of everyday materials, by identifying the properties of plastic in the context of Lego.
Week 2	**Comparing Animals** To describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets).	**Autumn Walk** To observe changes across the four seasons.	**Objects and Materials** To distinguish between an object and the material from which it is made by naming objects and identifying the material which they are made from.	**Spring to Summer** To observe changes across the four seasons.	**The Parts of a Plant** To identify and describe the basic structure of a variety of common flowering plants, including trees.	**Mae Jamison** To ask simple questions and use simple secondary sources to find answers, by role playing an interview with Mae Jemison.
Week 3	**Animal Diets** To identify and name a variety of common animals that are carnivores, herbivores and omnivores.	**Autumn to Winter** To observe changes across the four seasons.	**Properties** To distinguish between an object and the material from which it is made by looking and touching different materials.	**Observing the Weather** To observe and describe weather associated with the season and how day length varies.	**Garden and Wild Plants** To identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. To observe closely, using simple equipment.	**Zoos** To describe and compare the structure of a variety of common animals, by sorting animals according to their features.
Week 4	**The Human Body** To identify, name, draw and label the basic parts of the human body.	**Wonderful Winter** To observe and describe weather associated with the seasons.	**Testing Properties** To describe the simple physical properties of a variety of everyday materials by testing different objects.	**Spring Walk** To observe and describe weather associated with the seasons and how day length varies.	**Terrific Trees** To identify and name a variety of common wild and garden plants, including deciduous and evergreen trees.	**Sensory Garden** To identify and name a variety of common wild and garden plants, by exploring a range of sensory plants.
Week 5	**Senses** To say which part of the body is associated with	**Observing the Weather** To observe and describe weather	**Umbrella Investigation**	**Daylight Hours** To observe and describe weather associated with	**Fruit and Vegetable Plants** To identify and name a variety of	**Measuring the Weather** To observe and describe weather

	each sense. To perform simple tests.	associated with the seasons. Using their observations and ideas to suggest answers to questions.	To observe closely by watching what happens to teddy.	the seasons and how day length varies.	common wild and garden plants, including deciduous and evergreen trees.	associated with the seasons, by measuring rainfall with a rain gauge they have made.
Week 6	**Sorting Animals** To describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets).	**The Four Seasons** To observe changes across the four seasons.	**Sorting** To compare and group together a variety of everyday materials on the basis of their simple physical properties by sorting objects.	**The Four Seasons** To observe and describe weather associated with the seasons. To identify and classify.	**Comparing Plants** To identify and name a variety of common wild and garden plants, including deciduous and evergreen trees	**At the Vets** To describe and compare the structure of a variety of common animals, including pets, by exploring the work of vets.

Lewknor Medium Term Plan						
Science – Year 1/2 - Cycle B						
Progression from EYFS						
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Theme/Unit	Living Things and Their Habitats	Animals Including Humans Yr.2	Uses of Everyday Materials	Plants Yr.2	Biodiversity - Minibeasts	Scientists and Inventors
Week 1	**Is It Alive?** To compare the differences between things that are alive, used to be alive and have never been alive.	**Animal Offspring** To match, sort and group young animals and their adults	**Identifying Uses** To identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses, by identifying the uses of different materials.	**What Do Plants Need to Grow?** To design and set up a test to find out what plants need to stay healthy	**Minibeast Hunt** To identify and name a variety of minibeasts and their habitats.	**Greenhouse Growing** To 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.
Week 2	**Habitats Near Me** To find and name some plants and animals in a local habitat and explain how they depend on each other.	**Life Cycles** To find out how animals change as they grow into adults.	**Out and About** To identify and classify the uses of everyday materials, in the context of the local area.	**What's Inside a Seed?** To look closely at the parts of a seed that will grow into a plant and explain how it will germinate.	**Bee-Friendly Environments** To explain the importance of bees and pollination.	**Brilliant Botany** To identify and describe the basic structure of common flowering plants by observing and sketching a range of common plants.
Week 3	**Microhabitats and Minibeasts** To find and name some plants and animals in a microhabitat and describe why they are suited to living there.	**Growing Up** To compare the stages of the human life cycle.	**Comparing Suitability** To identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses, by exploring the purposes of different objects.	**Life Cycle of a Plant** To describe the life cycle of a plant	Minibeast Helpers To research minibeasts and explain their importance.	**Doctor's Surgery** To use their observations and ideas to suggest answers to questions in the context of considering whether doctors are scientists
Week 4	**Comparing Microhabitat** To find and name some plants and animals in a microhabitat and describe why they are suited to living there.	**Survival** To research and describe what animals, including humans, need to survive.	**Changing Shape** To find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching,	**What Do Plants Need to Stay Healthy?** Part 1 To explain what plants need to grow and stay healthy.	**Minibeast Mansions** To show how a microhabitat is suitable for a minibeast.	**Discovering Germs** To describe the importance of hygiene to humans in the context of investigating Louis Pasteur's

			by changing the shape of objects.			work on how germs spread.
Week 5	**World Habitats** To describe how living things in habitats around the world depend on each other.	**Exercise** To test the effects of exercise on the human body.	**Recycling** To find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching, in the context of recycling.	**What Do Plants Need to Stay Healthy?** Part 2 To describe what happens if plants don't get all the things they need.	**Wonderful Worms** To describe the importance of worms for healthy soil.	**Charles Macintosh** To find out about people who have developed new materials in the context of learning about Charles Macintosh
Week 6	**Food Chain** To use a food chain to show how animals get their food.	**Healthy Living** To investigate the importance of healthy eating and hygiene.	**Discovering New Materials** To find out about people who have developed new materials, by learning about John McAdam	**How Do Plants Grow in Hot, Dry or Cold Places?** To explain how plants are suited to their habitats.	**Minibeasts for our Planet** To explain the importance and needs of minibeasts and microhabitats.	**Wind Power** To use their ideas to answer questions in the context of answering questions on renewable energy and the invention of wind turbines.

Lewknor Medium Term Plan						
Science – Year 3/4 - Cycle A						
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Theme/Unit	Animals including Humans Yr.3	Rocks	Forces and magnets	Plants Yr.3	Light	Reduce, Reuse, Recycle
Week 1	**Nutrition** To sort foods into food groups and find out about the nutrients that different foods provide.	**What Are Rocks?** To compare and identify types of rock.	**Pushes and Pulls** To notice that some forces need contact between two objects by identifying the different types of forces acting on objects.	**Parts of Plants** To identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers by labelling the parts of a plant.	**Light and Dark** To recognise that we need light in order to see things and that dark is the absence of light by taking part in a 'feely bag' investigation.	**Waste and the 3Rs** To recognise that environments can change and that this can sometimes pose dangers to living things. To examine the waste produced from a typical lunchbox.
Week 2	**Food Labels** To explore the nutritional values of different foods by gathering information from food labels.	**Properties of Rocks** To group rocks based on their properties by making careful and thorough observations.	**Faster and Slower** To compare how things move on different surfaces by investigating the speed of a toy car over different surfaces	**What Do Plants Need to Grow Well?** To explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) by investigating what plants need to grow well.	**Reflective Surfaces** To notice that light is reflected from surfaces by choosing the most reflective material for a new book bag.	**Sustainable Plant Pots** To 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. To plan and set up a simple comparative test for plant growth.
Week 3	**Skeletons** To sort animal skeletons into groups, discussing patterns and similarities and differences.	**Weathering and Erosion** To understand the terms 'weathering' and 'erosion' and identify evidence of these processes through observations.	**Scrapyard Challenge** To notice that magnetic forces can act at a distance and attract some materials and not others by sorting materials. To compare and group materials according to whether they are magnetic by sorting materials.	**What Have You Found Out?** To record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables by observing and recording plant growth. To report on findings from enquiries, including oral and written explanations and presentations of results and conclusions by presenting findings to the class.	**Marvellous Mirrors** To notice that light is reflected from surfaces by playing mirror games.	**Carbon Footprint** To make recommendations to reduce our carbon footprint.

Week 4	**Human Skeletons.** To investigate an idea about how the human skeleton supports movement.	**How Are Fossils Formed?** To explain how fossils are formed.	**Magnet Strength** To observe how magnets attract or repel each other and attract some materials and not others by investigating the strength of different magnets.	**Moving Water** To investigate the way in which water is transported within plants by observing the transport of food colouring through a flower stem.	**Sun Safety** To recognise that light from the sun can be dangerous and that there are ways to protect our eyes by designing and advertising a pair of sunglasses or a sun hat.	**Water Waste** To analyse rainfall data and use it to answer a scientific question.
Week 5	**Muscles** To explain how bones and muscles work together to create movement.	**What Is Soil?** To explain how soil is formed and identify different types of soil.	**Magnetic Poles** To describe magnets as having two poles and to predict whether two magnets will attract or repel each other, depending on which poles are facing by making a compass to hunt for treasure.	**Fantastic Flowers** To explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal by understanding pollination and fertilisation.	**Making Shadows** To recognise that shadows are formed when the light from a light source is blocked by a solid object by investigating the best material for curtains for a baby's bedroom.	**Sustainability Outdoors** To use results from a comparative test to draw conclusions.
Week 6	**Investigating** To design and carry out my own investigation.	**Investigating the Permeability of Soils** To compare soils based on their permeability.	**Marvellous Magnets** To observe how magnets attract or repel each other and attract some materials and not others by making, playing and evaluating a magnetic game.	**Life Cycle** To explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal by ordering and describing the stages of the life cycle of a flowering plant.	**Changing Shadows** To find patterns in the way that the size of shadows change by investigating what happens when you change the distance between the object and the light source.	

Lewknor Medium Term Plan						
Science – Year 3/4 – Cycle B						
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Theme/Unit	Living Things and Their Habitats	Animals Including Humans Yr.4	Electricity	States of Matter	Sound	Scientists and Inventors
Week 1	**Grouping Living Things** To group living things in a variety of ways based on their similarities and differences.	**Tooth Decay** To discuss how to keep teeth healthy; plan and set up an investigation into tooth decay.	**Appliances** To classify and present data, identifying common appliances that run on electricity.	**Solid, Liquid or Gas?** To compare and group materials together, according to whether they are solids, liquids or gases by sorting and describing materials into solids, liquids and gases.	**Good Vibrations** To identify how sounds are made, associating some of them with something vibrating, by identifying and explaining sound sources around school.	**Madagascar in Danger** To recognise that environments can change and that this can sometimes pose dangers to living things by exploring Gerald Durrell's conservation work in Madagascar. To set up simple practical enquiries and report on findings from enquiries in the context of soil erosion and nutrient loss.
Week 2	**Classifying Vertebrates** To identify, group and classify vertebrate species.	**Types of Teeth** To draw conclusions from an investigation about keeping teeth healthy and to identify and examine different types of teeth.	**Making Circuits** To identify circuit components and build working circuits.	**Investigating Gases** To compare and group materials together, according to whether they are solids, liquids or gases by investigating gases and their uses.	**Hearing Sounds** To identify how sounds are made, associating some of them with something vibrating, by performing a dramatisation of how sounds travel. To find patterns between the volume of a sound and the strength of the vibrations that produced it, by performing a dramatisation of how sounds travel. To recognise that vibrations from sounds travel through a medium to the ear, by performing a dramatisation of how sounds travel.	**Alexander Graham Bell** To recognise that vibrations from sounds travel through a medium to the ear in the context of Alexander Graham Bell's invention of the telephone. To report on findings, including oral and written presentations and displays in the context of Alexander Graham Bell's invention of the telephone.

Week 3	**Invertebrate Hunt** To make careful observations in order to classify invertebrate species.	**Parts of the Digestive System** To identify the parts of the digestive system and their function.	**Complete Circuits** To investigate whether circuits are complete or incomplete.	**Heating and Cooling** To 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) by investigating how heating and cooling can change a material's state	**Higher and Lower** To recognise that vibrations from sounds travel through a medium to the ear, by exploring how high and low sounds are created. To find patterns between the pitch of a sound and features of the object that produced it, by exploring and creating musical instruments, and explaining how they change pitch.	**Maria Telkes** To make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers in the context of building a solar oven. To build a solar oven and explain how the temperature changes inside it.
Week 4	**Classification Keys** To develop criteria to identify, group and classify a range of animal species using classification keys.	**The Digestion Process** To demonstrate and explain the process of digestion.	**Conductors and Insulators** To investigate which materials are electrical conductors or insulators.	**Wonderful Water** To 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) by exploring how water can change its state to a solid, liquid or a gas.	**String Telephone** To recognise that sounds get fainter as the distance from the sound source increases, by exploring how sounds change over distance. To recognise that vibrations from sounds travel through a medium to the ear, by making string telephones.	**Garrett Morgan** To construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers To recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit in the context of creating a traffic light. To build a traffic light using series circuits.
Week 5	**Local Habitat Study** To conduct observations in order to analyse positive and negative influences on living things in our local environment.	**Food Chains** To construct food chains for different habitats and explain findings using the correct scientific language.	**Switches** To explain how a switch works in a circuit, build switches and report my findings.	**Evaporation Investigation** To associate the rate of evaporation with temperature by investigating the effect of temperature on drying washing.	**Soundproofing** To recognise that vibrations from sounds travel through a medium to the ear, by investigating the best material for absorbing sound.	**Discovering Oxygen** To compare and group materials together according to whether they are solids, liquids or gases by exploring the discovery of oxygen. To describe the properties of oxygen gas.

						To identify changes relating to simple scientific ideas and processes by exploring the discovery of oxygen and the theory of phlogiston. To explain how oxygen was discovered
Week 6	**Environmental Changes** To use scientific evidence to answer questions about endangered living things.	**Animal Teeth** To construct and interpret a variety of food chains, identifying producers, predators and prey.	**Electrical Discussions** To discuss and solve problems about electricity using reasoning skills.	**The Water Cycle** To identify the part played by evaporation and condensation in the water cycle by creating a model of the water cycle.	**Making Music** To recognise that vibrations from sounds travel through a medium to the ear, by making a musical instrument and explaining how it works. To find patterns between the pitch of a sound and features of the object that produced it, by making a musical instrument and explaining how it works.	**Thomas Edison and Lewis Latimer** To identify changes related to scientific ideas and processes by exploring Thomas Edison's and Lewis Latimer's work with electricity. To identify common electrical appliances that run on electricity by exploring Thomas Edison's and Lewis Latimer's work with electricity. To explore the impact of electrical inventions by inventors such as Thomas Edison and Lewis Latimer.

Lewknor Medium Term Plan						
Science – Year 5/6 – Cycle A						
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Theme/Unit	Properties and changes of materials	Forces	Earth and space	Animals including humans Yr.5	Living things and their habitats Yr. 5	Scientists and Inventors
Week 1	**Properties of Material** To classify and group materials by their properties, including hardness, transparency and magnetism.	**Forces In Action** To identify forces acting on objects.	**Spherical Bodies** To describe the Sun, Earth and Moon as approximately spherical bodies by understanding how this knowledge has been attained.	**Gestation Periods** To explain what gestation periods are for different animals, including humans.	**Making New Plants 1** To describe the life process of reproduction in some plants and animals by exploring sexual reproduction in plants.	David Attenborough To find out about the work of naturalists and animal behaviourists in the context of the life and work of David Attenborough.
Week 2	**Thermal Conductivity** To compare and group various materials based on their properties of thermal insulation and suggest materials that would be suitable thermal insulators.	**Gravity** To explore the effect that gravity has on an object.	**The Planets** To describe the movement of the Earth, and other planets, relative to the Sun in the solar system by learning the order of the plants and how they move in the solar system.	**Prenatal Development** To describe the changes as humans develop from fertilisation to birth.	**Making New Plants 2** To describe the life process of reproduction in some plants and animals by exploring sexual reproduction in plants.	CSI To identify scientific evidence that has been used to support or refute ideas or arguments in the context of how CSI technicians use evidence to solve crimes.
Week 3	**Electrical Conductivity** To investigate whether materials are electrical conductors or insulators.	**Friction** To investigate the effects of friction.	**Geocentric Versus Heliocentric** To identify scientific evidence that has been used to support or refute ideas or arguments in the context of the shift from heliocentric models of the solar system to geocentric models.	**Growth and Development of Babies and Children** To explain how babies grow and develop into children.	**Mammals** To describe the life cycle of a mammal by exploring the life cycles of mammals in different habitats. To describe the life process of reproduction in some plants and animals by describing sexual reproduction in mammals.	Mission to the Moon To describe how scientific ideas have changed over time in the context of Margaret Hamilton's development of the software for the Apollo Moon missions.
Week 4	**Solubility** To explore how some materials will dissolve in water and others will not.	**Air Resistance** To investigate the effects of air resistance.	**Night and Day** To identify scientific evidence that has been used to support or refute ideas or arguments in the context of the evidence for the Earth's rotation.	**Puberty and Adolescence** To describe and explain the main changes that occur during puberty.	**Jane Goodall** To describe the life process of reproduction in some plants and animals by exploring Jane Goodall's work with chimpanzees.	The Solar System To describe the movement of the Earth, and other planets, relative to the Sun in the solar system in the context of classifying and ordering planets based on their sizes, surface and orbits.
Week 5	**Separating Materials** To use knowledge of the processes of magnetism, sieving,	**Water Resistance** To explore the effects of water resistance.	**Night and Day International** To report and present findings from enquiries, including	**Late Adulthood** To identify the changes that take place in late adulthood.	**Metamorphosis** To describe the differences in the life cycles of an amphibian and an insect by exploring	Eva Crane To describe the life process of reproduction in some plants and animals in the

	evaporation and filtration to separate a mixture of materials.		conclusions, in oral and written forms such as displays and other presentations in the context of investigating night and day		complete and incomplete metamorphosis.	context of Eva Crane's research into the life cycle of bees.
Week 6	**Reversable and Irreversible change** To explain the differences between reversible and irreversible changes.	**Marvellous Mechanisms** To explore and design mechanisms.	**Movement of the Moon** To describe the movement of the Moon relative to the Earth by explaining how the Moon orbits the Earth.	**Human Timeline** To describe the stages of human development.	**Comparing Life Cycles** To describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird by describing and comparing different life cycles, including birds.	

Lewknor Medium Term Plan						
Science – Year 5/6 – Cycle B						
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer
Theme/Unit	Living things and their habitats Yr. 6	Animals including humans Yr.6	Light	Electricity	Evolution and inheritance	Scientists and Inventors
Week 1						
Week 2						
Week 3						
Week 4						
Week 5						
Week 6						