Clore Shalom School

Science Curriculum Map

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	**Similarities and differences between families, family customs and routines, houses and homes. Senses, bodies.** (B) **Recycling activities** (P) **Communication and Language:** • Learn and use new vocabulary. • Ask questions to investigate • Articulate their ideas • Describe events in some detail. • Work out problems and organise thinking and activities • Explain how things work and why they might happen. **Personal, Social and Emotional Development:** • Know and talk about the different factors that support their overall health and wellbeing.	**Making waterproof clothing for Teddy Bears** (P) **Using microscope to look at leaves and patterns** (P) **Communication and Language:** • Learn and use new vocabulary. • Ask questions to investigate • Articulate their ideas • Describe events in some detail. • Work out problems and organise thinking and activities **Understanding the World:** • Changes in the natural world.	**Going on an environmental walk** (B) **Understanding the World:** • Explore the natural world • Describe senses • Recognise different environments • Changes in the natural world. • Making observations and drawings. **Communication and Language:** • Ask questions to investigate • Articulate their ideas **Personal, Social and Emotional Development:** • Know and talk about the different factors that support their overall health and wellbeing.	**Boats- what material makes a good boat?** (P) **Science experiments** (C) **Communication and Language:** • Learn and use new vocabulary. • Ask questions to investigate • Articulate their ideas • Describe events in some detail. • Work out problems and organise thinking and activities **Understanding the World:** • Changes in the natural world.	**Lifecycles** (B) **Mini beast hunting** (B) **Understanding the World:** • Explore the natural world • Describe senses • Recognise different environments • Changes in the natural world. **Communication and Language:** • Articulate their ideas • Know and talk about the different factors that support their overall health and wellbeing. • Making observations and drawings.	**Habitats** (B) **Keeping healthy** (B) • Know and talk about the different factors that support their overall health and wellbeing. • Explore the natural world • Describe senses • Recognise different environments • Changes in the natural world. **Personal, Social and Emotional Development:** • Articulate their ideas • Know and talk about the different factors that support their overall health and wellbeing. • Making observations and drawings.

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Year 1	**Seasonal Changes** (P) • Order the 4 seasons • Describe different types of weather **Everyday Materials** (C) • Identify the material from which an object is made • Identify and name a variety of everyday materials, including: wood, plastic, glass, metal, water, and rock • Describe simple physical properties of a variety of everyday materials • Compare and group together everyday materials based on their simple physical properties	**Animals inc. Humans** (B) • Describe, compare, identify and name a variety of: fish, amphibians, reptiles, birds and mammals • Describe, compare identify and name a variety of: carnivores, herbivores and omnivores	**Animals inc. Humans** (B) • Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. **Seasonal Changes** (P) • Observe changes across the 4 seasons – clothes • Investigate and record rain • Secondary data recordings • Hours of daylight	**Plants** (B) • Identify and name a variety of common wild and garden plants • Identify and describe the basic structure of a variety of common flowering plants, including trees	**Pets & Gardens** • Identify and name a variety of common wild and garden plants • Identify and describe the basic structure of a variety of common flowering plants, including trees • Describe how to look after a variety of pets
Year 2	**Use of everyday materials** (C) • Identify and compare the suitability of a variety of everyday materials for a particular purpose, including: wood, metal, plastic, glass, brick, rock, paper • Investigate out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching	**Animals inc. Humans** (B) • Note that animals, including humans, have offspring which grow into adults • Find out about and describe the basic needs of animals, including humans, for survival • Describe the importance for humans of: exercise, eating the right amounts of different types of food, and hygiene	**Plants** (B) • Observe and describe how seeds and bulbs grow • Investigate and describe the basic needs of a plant	**Living Things & their Habitats** (B) • Explore and compare the differences between: things that are living, dead, and things that have never been alive • Identify how habitats are suited for the living thing within it • Describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other • Identify and name a variety of plants and animals in their habitats, including microhabitats • Describe how animals obtain their food from plants and other animals, through a simple food chain	

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Year 3	**Animals inc. Humans** (B) • Identify that animals, including humans, need the right types and amount of nutrition, and that they get nutrition from what they eat not from themselves • Understand that humans and some other animals have skeletons and muscles for support, protection and movement	**Light** (P) • Recognise that light is needed 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 their eyes • Understand that shadows are formed when the light from a light source is blocked by an opaque object • Find patterns in the way that the size of shadows change	**Rocks** (C) • Compare and group together different kinds of rocks based on their appearance and physical properties • Describe in simple terms how fossils are formed • Recognise that soils are made from rocks and organic matter	**Plants** (B) • Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers • Explode the requirements of plants for life and growth and how they vary • Investigate the way in which water is transported within plants • Explore the part that flowers play in the life cycle of flowering plants: pollination, seed formation and seed dispersal	**Forces & Magnets** (P) • Compare how things move on different surfaces • Note that some forces need contact between 2 objects, but magnetic forces can act at a distance • Observe how magnets attract or repel each other and attract some materials and not others • Compare and group together a variety of everyday materials (magnetic materials) • Describe magnets as having 2 poles • Predict whether 2 magnets will attract or repel each other, depending on which poles are facing	
Year 4	**Animals inc. Humans** (B) • 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	**Electricity** (P) • Identify common appliances • Construct a simple series electrical circuit, identifying and naming its basic parts: cells, wires, bulbs, switches and buzzers • Understand the role of a switch in a simple circuit • Identify whether or not a lamp will light in a simple series circuit, based on whether it is part of a complete loop with a battery • Recognise some common conductors and insulators • Understand that metals are good conductors	**States of matter** (C) • Compare and group materials together: 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 (°C) • Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature		**Sound** (P) • Identify how sounds are made, associating some of them with vibrations • 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 • Find patterns between the volume of a sound and the strength of the vibrations that produced it • Recognise that sounds get fainter as the distance from the sound source increases	**Living Things & Their Habitats** (B) • Recognise that living things can be grouped in a variety of ways • Use classification keys to help group, identify and name a variety of living things in their local and wider environment • Understand that changing environments can sometimes pose dangers to living things

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Year 5	**Properties and changes of materials** (C) • Compare and group together everyday materials on the basis of their properties: hardness, solubility, transparency, conductivity (electrical and thermal), and magnetism • Know that materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution • Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating • Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic • Demonstrate that dissolving, mixing and changes of state are reversible changes • Explain that some changes result in the formation of new materials, and that this kind of change is usually irreversible	**Earth & Space** • Describe the movement of the Earth and other planets relative to the sun • Describe the movement of the moon relative to the Earth • Describe the sun, Earth and moon as approximately spherical bodies • Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky	**Living Thing & their Habitats** (B) • Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird • Describe the life process of reproduction in some plants and animals	**Animals Inc. Humans** (B) • Describe the changes as humans develop to old age	**Forces** (P) • Explain that unsupported objects fall towards the Earth because of the force of gravity • Identify the effects of resistance forces • Recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect

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Year 6	**Living Things & Their Habitats** (B) • Describe how living things are classified into broad groups based on common observable characteristics and based on similarities and differences • Give reasons for classifying plants and animals based on specific characteristics	**Light (P)** • Recognise that light appears to travel in straight lines and use this to explain that objects are seen because they give out or reflect light into the eye • Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes • Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them	**Electricity** (P) • Associate the brightness of a lamp or the volume of a buzzer with the voltage of cells used in the circuit • Compare and give reasons for variations in how components function • Use recognised symbols when representing a simple circuit in a diagram	**Animals Inc Humans** (B) • Identify and name the main parts of the human circulatory system • 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	**Evolution and Inheritance** (B) • Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago • 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 and that adaptation may lead to evolution