Progression of skills and knowledge	Thrapston Primary School	Whole School Curriculum Plan		Subject - Science		
	In the school Year 2022/23, there will be a mixed Year 2 class. Due to this both Year 1 and Year 2 will be learning the Year 2 curriculum units in the 2022/23 academic year and in 2023/24 we will be learning the Year 1 curriculum units.					
		Term 1	**Term 2**	**Term 3**	**Term 4**	**Term 5**	**Term 6**
	Year 1	Learn about the basic parts of the human body and explore their five senses	Learn about common objects and their materials to begin describing their properties.	Learn about lights sources and how to create shadows.	Learn about animals in our locality, identifying common animals and which are herbivores, omnivores or carnivores.	Learn out about the plants that live in our locality. Learn to name and identify common wild and garden plants, including trees.	To learn about and recreate an experiment from a famous scientist from the past.
	Year 2	. Explore the properties and uses of everyday materials. Explore how the shapes of objects can be changed by squashing, bending, twisting and stretching. In doing this, raise questions, perform simple tests, and gather and record data.		Explore and compare things that are living, dead or never been alive. Start to teach habitats - Explore how different habitats are suited for different needs and how animals obtain.	Continue to explore and compare things that are living, dead or never been alive. Explore how different habitats are suited for different needs and how animals obtain their food from plants and other animals, understand a simple food chain, explore and name different sources of food.	Explore 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. Explore how seeds and bulbs grow into mature plants.	Explore the importance of exercise, diet and good hygiene, building on the topic in Year 1 Explore the basic needs of humans for survival and understand the importance for humans of eating the right amounts of different types of food, and hygiene.

Year 3	Work scientifically to learn about magnets and their uses. What makes magnetic poles special, along with the idea that some forces such as magnetic force can act without contact – unlike pushes and pulls, which require direct contact.	Work scientifically on a variety of investigations to learn about rocks. Develop an understanding of the properties and uses of rocks, the rock family, soils and finally fossils.	Work scientifically on a variety of investigations to learn about food and our bodies. Develop an understanding of where animals get food from and why it is important, and skeletons, muscles and joints.	Learn about rainforest animals and plants. Learn to name and identify animals and plants and build on previous learning about animal groups and food chains in relation to the rainforest.	Work scientifically on a variety of investigations to learn about plants. The different parts of plants, what plants need to live, water transportation in plants and pollination.	Work scientifically on a variety of investigations to learn about the wonders of light, including reflections and shadows.

	Year 4	Learn how sounds are made on a variety of instruments and how they can be changed in volume, pitch and over distance. Explore making sounds on a range of	Revisit uses of electricity and the importance of safety before constructing simple circuits. Understand how to change a circuit by changing its components,	Learn about states of matter. Compare and group materials together, according to whether they are solids, liquids or gases. Observe that some	Learn about digestion and different types of teeth, moving on to explore deadly predators and their prey, in their exploration of food	Learn how living things can be grouped in a variety of ways. Explore and use keys to identify and name a variety of living things. Look at how changes	Research animals as builders, comparing their structures to our own, to then recreating a style of animal structural building.

		objects that aren't instruments, in order to investigate how sounds are created to make music.	leading to application of knowledge and skills to make an alarm using their circuit knowledge.	materials change state when heated or cooled, and identify the part played by evaporation and condensation in the water cycle.	chains. Work scientifically, using enquiry, practical experiments and handson research to answer questions and investigate how we eat, why we eat and what we eat.	to habitats can pose dangers to living things.	engineers and architects and the structures they built.
	Year 5	Learn about space. The Solar System, how ideas about space have changed over time. Explore what causes us to experience night and day on Earth.	Learn about materials. How they change. Test properties of material, look at how materials dissolve, what a solution is and evaporation. Compare reversible and irreversible changes.	Look at the life cycles of various species including mammals, amphibians, fish and birds. Describe the life process of reproduction in plants and animals.	Learn about forces and machines. They start with the force of gravity then study friction forces, including air and water resistance, before investigating how simple machines work.	Look at and describe the changes as humans develop to old age. Identify stages in the growth and development of humans and learn about the changes experienced in puberty.	Learn about materials, how they change and which changes are reversible and irreversible. Recognise how these properties are applied in the real world.
	Year 6	Build on previous learning about grouping living things (Y4) by investigating classification system in more detail. Revisit classification then develop knowledge by exploring fungi and bacteria. Look at the work of Carl Linnaeus, the scientist.	Build on previous learning (Y3+4) on main body parts and internal organs (skeletal, muscular and digestive system). Consider life processes that are internal to the body (e.g. circulatory system). Consider the impact of lifestyle on bodies, particularly of humans. Scientists are continually finding out what is good and bad for us, and their ideas do change as more research is carried out.	Build on previous learning (Y3) about fossils, look at the work of palaeontologist Mary Anning. Find out **more** about how living things have changed over time. Understand how characteristics are passed from parent to offspring. Appreciate that variation over time can make animals more or less likely to survive in particular environments (adaptation). Look at evolution and Charles' Darwin's theory of natural selection.	Build on previous Y3 learning (light, shadows and reflection). Introduce the concept of light travelling in straight lines. Explore how light travels. Apply this understanding to the production of shadows and how light is reflected. Use scientific skills to raise and answer questions.	This topic builds on the Year 4 work on electricity, taking it into the scientific use of symbols for components in a circuit, as well as considering the effect in more detail of changing components in a circuit. The children have the opportunity to apply their learning by creating an electronic game.	Use their science and link it to an historical event. E.g. The Titanic. Base the learning around applying the working scientifically skills that they have learned so far, to explore some of the scientific concepts. (Titanic - floating and sinking. Use as an opportunity to embed, assess and observe working scientifically skills, laying foundations for transition to KS3 science.