

**Walsden St Peter's CE Primary School**

**Whole School Long Term Planning - Science**

<b>Year</b>	<b>Autumn</b>	<b>Spring</b>	<b>Summer</b>
<b>EYFS</b>	<p><b>The World Around Me &amp; The Gruffalo</b>  <b>Seasonal changes</b> – changes and the weather. Identify the seasons and observe the world around whilst on an Autumn walk in Walsden.</p>	<p><b>Frozen &amp; Traditional Tales</b>  <b>Seasonal changes</b> – changes and the weather. Identify the seasons and observe the world around whilst on a Spring walk in Walsden.  <b>Everyday materials and their physical properties</b> - Freezing and melting.  <b>Animals, including humans</b> – animals and where they live</p>	<p><b>Growing, mini-beasts &amp; farms</b>  <b>Seasonal changes</b> – changes and the weather. Identify the seasons and observe the world around whilst on a Summer walk in Walsden.  <b>Animals, including humans</b> – ‘Healthy Week’ – personal exercise, food and hygiene. Changes in ourselves and living things.  Animals in Walsden including mini-beasts - habitats  <b>Plants</b> – grow plants and food</p>
<b>1</b>	<p><b>Magical Hats!</b>  <b>Everyday materials and their physical properties:</b>  Grouping of materials according to their physical properties e.g. waterproof/not waterproof, absorbent/not absorbent, stretchy/stiff  Comparison and identification of everyday materials.  <b>Plants</b>  Learn about bulbs and plant spring flowers – photograph growth  <b>Seasonal changes</b> - observe, describe and record monthly daylight hours sheet</p>	<p><b>Poles Apart.</b>  <b>Animals, including humans</b>  In depth study of penguins plus learn about other polar animals – simple comparisons  Labelling basic human body parts and associated senses  <b>Plants</b>  Observe and photograph changes. Identify and name British Spring flowers in Walsden  <b>Light</b>  Investigate light and shadows  <b>Seasonal changes</b> – observe and describe monthly daylight hours sheet</p>	<p><b>Where Are You?</b>  <b>Plants</b>  Identification of common wild and garden plants and trees in Summer  Observe and describe common plants around Walsden  Describe the basic structure of common, local plants  <b>Animals and Humans</b>  Learn about human senses. Name parts of humans and animals. Group animals according to features.  <b>Seasonal changes</b> – observe and describe monthly daylight hours sheet</p>
<b>2</b>	<p><b>Up, Up and Away!</b>  <b>Animals, including humans</b>  Basic needs of humans – water, food, air, a good diet, exercise and hygiene – through keeping astronauts healthy in Space.  <b>Uses of everyday materials</b>  Identify and explore the suitability of materials (for building a flying machine) and adapting materials and changing the shape of solid objects.</p>	<p><b>Dinosaur Roar!</b>  <b>Animals, including humans</b>  Compare the difference between living animals, species that previously existed and things that never existed.  Investigate reasons for extinction – why life was not sustained.  <b>Plants</b>  Identify and name a variety of plants.  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</p>	<p><b>Jambo Africa!</b>  <b>Animals, including humans</b>  In depth study of animals of the Savannah  Investigate simple food chains and how animals obtain food from both animals and plants.  Simple life cycles – notice that animals, including humans have offspring that grow into adults.  <b>Habitats</b>  Micro-habitats - Classifications in computer sessions</p>
<b>3</b>	<p><b>Mighty Metals / Snap Crackle Pop!</b>  <b>Rocks</b>  Classifying and identifying different kinds of rocks on the basis of their appearance and simple physical</p>	<p><b>Roaming in the Rainforests</b>  <b>Plants</b>  Identifying the functions of different parts of flowering plants and the part flowers play within the lifecycle of</p>	<p><b>Why has Greece always been in the news?</b>  <b>Light</b>  Investigate and identify light sources and understand that darkness is an absence of light.</p>

	<p>properties. Describe in simple terms how fossils are formed when things that have lived are trapped within rock Recognise that soils are made from rocks and organic matter</p> <p><b>Forces and Magnets</b> Understand that magnets have two forces; describe magnets as having to poles. Investigate, observe and predict attraction and repelling. Investigate objects moving on different surfaces</p>	<p>a plant :pollination, seed formation and dispersal Investigate how water is transported within plants.</p> <p><b>Animals, including humans</b> Nutrition: the requirements of humans and of rainforest animals. Studying and comparing skeletons and muscles of both humans and rainforest animals Classifying different types of animals in the rainforest and how they have adapted to live there.</p>	<p>Understand how shadows are formed; find patterns that determine the size of shadows; investigate how and why shadows change. Understand that light is reflected from surfaces &amp; Sun safety.</p>
4	<p><b>The Roman Empire Strikes Back.</b> <b>Animals, including humans</b> Teeth: different types of teeth, their names and functions. How to look after teeth and investigate what may damage them. The human digestive system: identify main parts of the human digestive system and understand their functions by building a model of the human digestive system. Food chains: understanding, identifying and applying the terms predator, prey and producers.</p> <p><b>Living things and their Habitats</b> Grouping, identifying and naming living things in the local environment. Interpreting and making simple classification keys to group living things. Investigating those environments can change and this can impact on the animals living there (including humans).</p>	<p><b>Splash!</b> <b>States of matter</b> Comparing and grouping solids, liquids and gases. Observe changes of state when materials are heated or cooled. Accurately measure and record the temperatures when changes occur. Identify the role of evaporation and condensation in The Water Cycle.</p> <p><b>Electricity</b> Identify common appliances that use electricity. Construct a simple circuit, identifying its main parts and their names, identify whether a lamp will light based on the circuit, recognise that a switch opens and closes a circuit and Recognise and name some common conductors and insulators. Drawing and correctly labelling pictorial representations of simple circuits.</p>	<p><b>Raiders, Traders and Invaders.</b> <b>Sound</b> Identifying how sounds are made, associating some of them with something vibrating. Recognising that vibrations from sounds travel through a medium to the ear.</p> <p>Finding patterns between the pitch of a sound and features of the object that produced it. Finding patterns between the volume of a sound and the strength of the vibrations that produced it. Recognising that sounds get fainter as the distance from the sound source increases.</p>
5	<p><b>Ancient Egypt</b> <b>Forces</b> Understand how the force of gravity acts between a falling object and the Earth. Investigate and identify the effects of friction that act between moving surfaces by comparing how pyramid builders moved blocks of stone on different surfaces and exploring ways of moving heavy objects over a longer distance including using rollers. Recognising that some mechanisms allow a smaller force to have a greater effect by finding ways of lifting heavy objects using levers and relating to their use for moving and lifting blocks and how they helped with</p>	<p><b>Sci- Fi and Space.</b> <b>Earth and Space</b> Describe the movement of the Earth and other planets relative to the sun in the solar system 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. Identify well-known constellations from Ancient Greek myths</p>	<p><b>Baghdad.</b> <b>Living things and their habitats</b> Understanding the differences in the life cycles of a mammal, an amphibian, an insect and a bird Understanding the life process of reproduction in some plants and animals. <b>Animals, including humans</b> Understanding the changes as humans go through puberty. Gestation of humans and compare to other animals.</p> <p><b>Electricity</b> Associate the brightness of a lamp or the volume of a</p>

	<p>pyramid building and irrigation. Investigate the effects of air and water resistance on moving objects.</p>		<p>buzzer with the number and voltage of cells used in the circuit Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches Draw and label accurate circuit diagrams.</p>
6	<p><b>Old Tod! New Ideas!</b> <b>Properties and Changes of Materials</b> Mixtures – solutions and suspensions/separating mixtures (sieving/filtering/evaporation Saturation point. Evaporation. Separating mixtures in real life – industrial means. Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution 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 not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda. <b>Fabrics</b> How fabrics are made Different kind of fabrics Testing fabrics for durability/absorbency</p>	<p><b>Against the Odds</b> <b>Evolution and Inheritance</b> Charles Darwin and his theories: Investigate how living things have changed over time; Understand fossils provide information about living things that inhabited the Earth; Understand how variance and adaptations may lead to evolution. Adaptation of living things to extreme environments.  <b>Living things and their Habitats</b> Classification of micro-organisms, plants and animals, Branching data bases of food and webs in contrasting habitats: caves, deserts, oceans.  <b>Light</b> Recognising that light travels in straight lines and understanding the relationship between shadows, the objects that cast them and light sources. Identifying primary and secondary light sources. How the eye works. Investigating prisms, refraction, colour, translucency and absorbency of heat.</p>	<p><b>Me and my wonderful self.</b> <b>Animals, including humans</b> Major organs: focus on the heart and the circulatory system Keeping yourself healthy: the impact of diet, exercise and lifestyle on how your body functions. The impact drugs (alcohol, caffeine, nicotine, non- prescription drugs) can have on physical and mental health. Understanding the changes as humans develop to old age. Human reproduction: puberty, physical changes, (including menstruation) and emotional change; how babies are made. Describe the ways in which nutrients and water are transported within animals including humans.</p>