Curriculum Overview

Year 2 – Inventions	
History (To learn about local people and events in living history that are significant nationally).	• To know that Alan Turing was a mathematician and computer science pioneer. • To understand that Alan Turing contributed to the solving of the enigma code, a vital element in Britain's defeat of Nazi Germany. • To understand that Alan Turing helped to build the world's first true computer at Manchester University. • To explain why Alan Turing is a significant individual in UK history. • To rank significant individuals that they have learnt about (including Queen Elizabeth II, Ernest Shackleton, David Attenborough and Alan Turing) by importance, and explain their choices. • To understand that Alan Turing is remembered in Manchester in a variety of ways (Alan Turing Way named after him; statue in Whitworth Gardens) and suggest other ways that he could be remembered. • To sort computer technology into old and modern and compare similarities and differences between these. • To create a simple timeline of computer technology.
Science	• To group materials by their properties, learnt in Year 1, and the additional properties transparent/opaque and flexible/rigid. • To perform simple tests to investigate which materials can be squashed to change shape and explain why others can't, using their properties e.g. *wooden objects can't be squashed because wood is too hard.* • To use observations to explain how some objects can be changed by bending, twisting and stretching; children use their knowledge of the properties of materials to explain why this happens. • To perform simple tests to identify the most suitable material for a specific purpose e.g. to make a waterproof coat for a teddy bear. • To record their results in a simple table and draw simple conclusions from these, explaining their choices.

Curriculum Overview

Year 2 – Twisted Tales (Jack and the Beanstalk; Revolting Rhymes)	
Science	• To observe the growth of a seed into a mature plant using simple equipment and record this, explaining each stage clearly. • To understand that the seeds from a plant can be re-planted to continue their lifecycle. • To record the growth of a plant over time using standard measures e.g. mm or cm. • To draw and label the stages of the lifecycle of a plant. • To understand and use the term **lifecycle**. • To plan, carry out and record an investigation to test how changing the amount of water, light and temperature affect the growth of a plant. • To use the results of their investigation to predict what will happen to the seed or bulb of a different type of plant when studied under varying water, light or temperature conditions. • To test their prediction through further investigation.

Curriculum Overview

Year 2 – Locations	
Geography	• To use aerial photographs and maps to recognise and describe the physical and human features of Chadderton. • To use simple compass directions (NESW) to describe the location of features and routes on a map of the local area surrounding school. • To make drawings, take photographs and record sound and video to record their observations of the human and physical features of the local area surrounding school. • To draw a simple map of the local area, including a compass rose and a basic key. • To compare modern and historical maps of Chadderton and make simple observations of how the area has changed e.g. changed from a small village with a few houses to a busy town; explain that the mills are not used as mills anymore but now contain different businesses. • To understand that the change from industry to business in recent years is not unique to Oldham, but common across the Greater Manchester region. • To name, locate and identify the characteristics of seas surrounding the UK. • To gather and record data to answer simple questions about the local area e.g. *Which is the most common type of vehicle in our local area?* • To understand and use the key vocabulary: **mountain, hill, sea, cliff, city, town, village, office**.

Curriculum Overview

Year 2 – Frozen Planet	
Geography	• To name and locate the four bodies of water surrounding the UK on a map: *Irish Sea, English Channel, North Sea and Atlantic Ocean.* • To describe the characteristics of each of the four bodies of water surrounding the UK e.g. *The Irish Sea separates England and Northern Ireland; The English Channel is not very wide so we can travel across it by ferry.* • To name and locate the 5 oceans of the Earth on a map: *Atlantic Ocean, Pacific Ocean, Arctic Ocean, Southern Ocean, Indian Ocean.* • To group weather by season (based on knowledge from Year 1) and understand how the day length differs by season. • To compare and contrast daily weather patterns in the UK with those of the frozen regions of the world. • To explain the differences in weather patterns between the arctic regions and the UK in relation to the equator e.g. *The UK has some warn weather because it is closer to the equator so it gets more sunlight than the Arctic.* • To understand and use the key vocabulary: **ocean, season, weather**.
Science (Science afternoon)	• To predict the results of simple tests. • To plan and perform simple tests. • To record and present results from simple tests. • To draw conclusions from their simple tests and suggest ways to further test their conclusions.

Curriculum Overview

Year 2 – Animals	
Science	• To understand that living things undertake 7 processes: grow, move, reproduce, sense, use nutrition, excrete waste products and respire. • To understand that things that are dead used to undertake the 7 processes, but do not anymore. • To understand that things which have never undertaken the 7 life processes have never been alive. • To classify things into living, dead and never alive and explain their choices using the 7 life processes. • To understand that living things need water, food and air and explain some of the consequences of a lack of these. • To give examples of micro-habitats and list some animals that live there e.g. pond contains fish, water beetles, etc. • To group animals according to the habitat they live in and explain how the habitat fulfils the animals' needs. • To understand that plants are always at the beginning of a food chain. • To construct simple food chains which begin with a plant and end with a carnivore or omnivore. • To match animal parents and their offspring, including those which look similar (e.g. cow-calf, horse-foal) and those which do not look similar (e.g. frogspawn-tadpole-frog; caterpillar – butterfly; egg – chicken). • To order the lifecycle of a human being (baby – toddler – child – teenager – adult – older adult) and explain some changes is capabilities at each stage. • To perform comparative tests and record their results to investigate how exercise affects their heart. • To explain why exercise is important for keeping the human body healthy in relation to the heart and the circulation of blood and oxygen. • To understand that we must wash our hands before we eat to reduce the spread of germs, which can make us ill. • To name the main food groups and their role in keeping the body healthy: carbohydrates (sugars, grains, cereals and potatoes), protein (meat, fish, nuts and pulses), fats (oils, fats and nuts), dairy and fruits and vegetables. • To describe a balanced diet and explain some consequences of not following this.

Curriculum Overview

Year 2 - Africa	
Geography	• To name and locate the earth's seven continents on maps and globes: Europe, Africa, Asia, North America, South America, Australasia, Antarctica. • To identify Kenya on a map of the world and understand that it is part of the continent of Africa. • To locate Oldham on a map and understand that it is part of the UK, which is part of the continent of Europe. • Using aerial perspectives (e.g. Google Earth), identify similarities in transport, houses and buildings and physical features between Oldham and Nairobi, the capital city of Kenya. • Using aerial perspectives (e.g. Google Earth), identify differences in transport, houses and buildings and physical features between Oldham and Nairobi, the capital city of Kenya. • Give possible reasons for these differences. • To understand and use the key vocabulary: **river, valley**.
History (significant historical events in the local area)	• To compare life in the industrial revolution in Oldham with life in Kenya at the same time. • To understand that Oldham grew into a large town during the Industrial Revolution. • To describe what life may have been like for children living in Oldham during the Industrial Revolution. • To understand that life in Kenya at the same time was very different e.g. many people lived in tribal groups; settlements were spread out. • To describe how life for children in Kenya at the time of the Industrial Revolution was similar from and different to life for children in Oldham.