



Science Curriculum – Year 1 and 2 – Cycle A

Non-Negotiables	Working Scientifically					
	• ask simple questions • observe closely using simple equipment • perform simple comparative tests • identify, sort, group and classify • use my observations to help me suggest answers to questions • with guidance, begin to notice patterns and relationships • observe simple changes over time • find information using simple secondary sources					
	• ask simple questions and recognise they can be answered in different ways • observe closely using simple equipment • perform simple comparative tests • identify, sort, group and classify • use my observations to help me suggest answers to questions • gather and record simple data to help me answer questions • with guidance, begin to notice patterns and relationships • use simple secondary sources • observe changes over time • communicate ideas in a variety of ways					
	Autumn		Spring		Summer	
	<p><u>Understand Animals Including Humans(Human health)</u></p> <p>B8: Identify name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.</p> <p>B11: Describe the importance for humans of exercise, eating the right amounts of different types of food and hygiene.</p>	<p><u>Investigate Light and Seeing</u></p> <p>P2: Observe and name a variety of sources of light, including electric lights, flames and the Sun, explaining that we see things because light travels from them to our eyes.</p> <p><u>Investigate Sound and Hearing</u></p> <p>P3: Observe and name a variety of sources of sound, noticing that we hear with our ears.</p>	<p><u>Investigating Materials - Everyday materials</u></p> <p>C1: Distinguish between an object and the material from which it is made.</p> <p>C2: Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock.</p> <p>C3: Describe the simple physical properties of a variety of everyday materials.</p> <p>C4: Compare and group together a variety of everyday materials on the basis of their simple physical properties.</p>	<p><u>Investigating Materials -Changing Materials</u></p> <p>C3: Describe the simple physical properties of a variety of everyday materials.</p> <p>C4: Compare and group together a variety of everyday materials on the basis of their simple physical properties.</p> <p>C6: Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick/rock, and paper/cardboard for particular uses.</p> <p>C5: Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</p>	<p><u>Understand Animals Including Humans</u></p> <p>B5: Identify and name a variety of common animals that are birds, fish, amphibians, reptiles, mammals and invertebrates.</p> <p>B6: Identify and name a variety of common animals that are carnivores, herbivores and omnivores.</p> <p>B7: Describe and compare the structure of a variety of common animals (birds, fish, amphibians, reptiles, mammals and invertebrates, including pets).</p> <p>B9: Notice that animals, including humans, have offspring which grow into adults.</p> <p>B10: Investigate and describe the basic needs of animals, including humans, for survival (water, food and air).</p> <p>B11: Describe the importance for humans of exercise, eating the right amounts of different types of food and hygiene.</p> <p><u>Understand Evolution and Inheritance</u></p> <p>B16: Identify how humans resemble their parents in many features.</p>	<p><u>Understand Plants</u></p> <p>B1: Identify and name a variety of common plants, including garden plants, wild plants and trees and those classified as deciduous and evergreen.</p> <p>B2: Identify and describe the basic structure of a variety of common flowering plants, including roots, stem/trunk, leaves and flowers.</p> <p>B3: Observe and describe how seeds and bulbs grow into mature plants.</p> <p>B4: Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. (<i>instructions – how to plant a seed</i>)</p>
Topic	“How can we help keep Harry Kane healthy?”	“What do we need for a good celebration?”	“How can we help the three little pigs build a better home?”	“Why did Kings and Queens live in Castles?”	“How should Old McDonald look after his farm?”	“How can we help our garden grow?”
Resources	Body part labels, various PE equipment, fruit to taste, healthy eating plate,	variety of prisms/torches , Coloured paper , Equipment: magnifying glasses (different strengths), thin cardboard, tape, Tray of water/mirror/torch, range of samples of materials of different reflectivity, torches,	Variety of rock, wood samples, plastics, metal, collection of everyday items made of different materials, teddy bear/character Investigation resources per group: a small bear, a plastic pot, an elastic band, a pipette, a pot with water in and 4 different (pre-cut) materials to test,	Where possible, have actual examples of wood, plastic, glass, metal, rock, brick, paper and cardboard (as opposed to objects made from these materials), objects to be manipulated: play dough, pipe cleaners, tea towels, socks, drink can, elastic bands, drinking straws and sponges. Scissors, pensils, glue,	Large sheets of scrap paper/newspaper Glitter (biodegradable glitter is available, or you may wish to make an alternative) - a very small amount (no more than ¼ teaspoon per pair needed) prepared in small containers Paper towels.	Samples of seeds, plants, magnifying glasses, tweezers, identifying trees/plants key/sheets, range of fruit, vegetables, bulbs and flowers,
Vocabulary	Head, ear, eye, mouth, nose, leg, knee, arm, elbow, back Wings, beak, smell, sight, touch, hearing, taste, carbohydrate, protein, vitamins, dairy, fats and oils, diet, healthy, balanced, sugar, exercise, heart, pulse	Eye, light, dark, source, reflection, sound, vibration, ear, eyes, muffle,	Materials, wood, plastic, glass, metal, water, rock Describe, properties, hard, soft, stretchy, stiff, shiny, dull, rough, smooth, bendy, not bendy, waterproof, not waterproof, absorbent, not absorbent, opaque, transparent, Investigation, prediction, predict, watch, test, record, sensible, results, decision.	Identify, materials, wood, plastic, glass, metal, rock, brick, paper, cardboard, uses, used, properties, hard, soft, stretchy, stiff, shiny, dull, rough, smooth, bendy, not bendy, absorbent, not absorbent, waterproof, not waterproof, transparent, opaque. observations, record, classify, group, similar, safe, unusual. compare, suitability, suitable, unsuitable, purpose, change, squash, bend, twist, stretch, recycling, reuse, biodegradable, environment, landfill site, recycling depot, shredded, melted, pellets, raw materials, greenhouse gases. Invent, macadamisation, macadam road, patent, Parliament, compensated, royalties, knighthood, tar, tarmacadam, tarmac	Herbivore, Carnivore, Omnivore, Adult, develop, young, offspring, reproduce, live young , hatchling, hatch, larvae, eggs, carnivore, herbivore, omnivore, mammal, reptile, amphibian, fish, bird. metamorphosis, larva(e), pupa, chrysalis, baby, toddler, child, teenager, tadpole, froglet,duckling, hatchling. Air, oxygen, breathe, water, food, diet , omnivore, herbivore, carnivore, care, survival, survive, budgerigar, chameleon, human, stick insect, reptile, bird, mammal. hygiene , hygienic, germs , illness, disease , spread, wash, clean, sneeze, cough, soap, water	observe, measure, record, group, pattern, Plant, tree, coniferous, deciduous, roots, stem, flower, petal, seeds, leaves, growth, germination, bulb, blossom, fruit, vegetable,

Lesson 1	Whole school project	<p>Year 1: To explore the sense of sound. Year 2: To explore the sense of sound. Activities: Children will explore ways in which we use our sense of sound. They may then either produce information text to show what they have learned during this, and previous lessons, or conduct a sound investigation. Outcomes: Year 1: Year 2: Children name the five senses • Children identify which part of the body each sense uses • Children listen carefully to sounds to identify them</p>	<p>Year 1: To identify and name a variety of everyday materials Year 2: To identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock Activities: Exploring different materials – labelling materials, describing materials – feely bag. Outcomes: Year 1: I can recognise different materials and identify them by a picture. I can match a material to its name I can name and identify different materials Year 2: I can recognise different materials and identify them by a picture. I can match a material to its name I can name and identify different materials</p>	<p>Year 1: To identify and compare the suitability of a variety of everyday materials Year 2: 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 Activities: Recap of everyday materials - Some materials are natural and are found in the world around us, such as wood and rock and others are man-made such as plastic and glass. Children look and/or move around the classroom to identify where different materials have been used to make familiar objects. Are children able to spot where everyday materials have been used to make familiar objects? Outcomes: Year 1: I can identify different everyday materials. I can suggest materials that familiar objects are made from. Year 2: I can identify different everyday materials. I can suggest materials that familiar objects are made from. I can explain what 3 different materials can be used for.</p>	<p>Year 1: To match young animals and their adults. Year 2: To match, sort and group young animals and their adults. Activities: Recap/explain the different animal groups. ‘Do all animal offspring look like their adult when they are born?’. Highlight the meaning of ‘live young’ to address any misconceptions. Match adult to offspring. Compare adult to offspring. Sort animals. When do/do not animals fit with their family groups? Outcomes: Year 1: I can explain that different animals have different types of offspring. I can match a young animal to its adult and sort the animals into different groups. Year 2: I can explain that different animals have different types of offspring. I can match a young animal to its adult and sort the animals into different groups. I can explain the similarities and differences between these groups.</p>	<p>Year 1: To find out what a plant is. Year 2: To understand that different seeds grow into different plants and to describe them Activities: Y1 Children will learn about what a plant is, then either go plant hunting, or plant seeds. Y2 Children will look at seeds and seed packets and establish what can be learned from them and how best to plant and grow different seed types. They may then either design seed packets or plant seeds Outcomes: Year 1: Children identify plants • Children describe the features of different plants • Children identify similarities and differences between plants Year 2: • Children know seeds grow into plants • Children name any plants that grow from seeds • Children understand seed packets tell us what seeds need to grow</p>
Lesson 2	<p>Year 1:To be able to identify, name and label body parts. Year 2:To be able to identify, name and label body parts and identify some functions of these Activities: Children will identify and name several body parts and identify their location on their own bodies. They will then label and/or draw diagrams. Year 2 – explain the functions of these parts Outcomes: Year 1: Children identify various body parts • Children name various body parts • Children label various body parts Year 2: As above Children identify the functions of various body parts</p>	<p>Year 1: To investigate whether sound can pass through materials. Year 2: Activities: Children will learn about some of the work of Alexander Graham Bell, then conduct practical investigations to explore ways in which sound travels through different materials. Outcomes: Year 1: Children use their own experiences to make predictions • Children observe patterns Year 2: Children use their own experiences to make predictions • Children observe patterns • Children talk about what they have found out</p>	<p>Year 1: To distinguish between an object and the material from which it is made Year 2: Activities: Look at objects made from the same materials. Discuss materials and uses of the objects. Discuss the difference between the objects and the actual materials they are made from. Outcomes: Year 1: I can name specific objects. I can name the materials which specific objects are made from. I can tell the difference between an object and the materials it is made from. Year 2: I can name specific objects. I can name the materials which specific objects are made from. I can tell the difference between an object and the materials it is made from. I can explain the difference between objects and materials.</p>	<p>Year 1: To identify and classify the uses of everyday materials Year 2: To gather and record data to help in answering questions Activities: Outcomes: Year 1: I can explain what different materials can be used for. I can group similar uses of materials together. I can make observations. Year 2: I can explain what 3 different materials can be used for. I can group similar uses of materials together. I can make observations. I can record my observations to help me answer a question.</p>	<p>Year 1: Year 2: To find out how animals change as they grow into adults. Activities: Children could possible have the pretext that they are going to open an exhibition explaining how different animals change as they grow into adults. Share understanding of a life-cycle. Explain using an animal as an example. Can children explain why it is called a life cycle? Using key vocabulary, can children describe the main stages of mammal and amphibian life cycles? Children create and compare life cycles of different animals. Outcomes: Year 1: I can compare the life cycles of different animals. I can name and order the stages of a life cycle. Year 2: I can compare the life cycles of different animals. I can use non-fiction texts to find out information. I can name and order the stages of a life cycle.</p>	<p>Year 1: To identify and describe garden plants. Year 2: To understand that plants can be grown from bulbs Activities: Y1 Children will learn about a variety of common garden plants, identify some of their features, and consider why they are appealing to people, e.g. easy to grow, or attracts insects. Y2 Children will learn about bulbs: their large food source, and the times of year at which they grow. They may then either undertake a sequencing activity to show bulb growth, or plant bulbs. Outcomes: Year 1: Children name garden plants • Children describe the features of different garden plants • Children identify similarities and differences between plants Year 2: Children know plants grow from seeds and bulbs • Children name any plants that grow from bulbs • Children explain why some plants need to grow from a bulb</p>
Lesson 3	<p>Year 1:To explore what parts of our bodies we use for different activities. Year 2:To explore what parts of our bodies we use for different activities. Activities: Children will consider which parts of their body are used during a variety of different activities. They will then describe how body parts are used, or how they move. Outcomes: Year 1: Children name various body parts • Children identify where various body parts are • Children describe</p>	<p>Year 1: To find out about the five senses, in particular the sense of sight. Year 2: To find out about the five senses, in particular the sense of sight. Activities: Children will consider why sight is an important sense, and conduct tasks where they will have to use their own sense of sight. Outcomes: Year 1: •Children know what the five senses are • Children know that eyes are used for seeing things • Children use their eyes to look carefully at pictures and objects</p>	<p>Year 1: To describe the simple physical properties of a variety of everyday materials Year 2: I can choose words which describe how materials look. I can choose words which describe how materials feel. Activities: Recap vocabulary introduced. Children explore a range of objects made from different materials. Describe how they look and feel. Match card of properties to materials. Feely bag. Outcomes: Year 1: I can choose words which describe how materials look.</p>	<p>Year 1: To compare the suitability of different everyday materials. Year 2: 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 Activities: Recap vocabulary for properties of materials. Why might objects be made from particular materials? Look at spoons made of different materials and discuss suitability for the purpose of the spoon. Children match the object with the most suitable material it could be made from. Outcomes:</p>	<p>Year 1: To know the stages of a human life cycle Year 2: To compare the stages of the human life cycle. Activities: Set up scenario of a child growing up – measuring height etc (Twinkl has an eBook Ajani) Can children name and order the stages of the human life cycle and explore how humans grow as they develop? What activities can you do as a baby? Toddler? Know? What can’t you do yet that older brothers/sisters can? Oder human life cycle/activities humans start to do at certain stages of the life-cycle. Outcomes:</p>	<p>Year 1: To identify and describe wild plants. Year 2: To be able to explain why and how seeds are dispersed. Activities: Children will identify some wild plants, and begin to consider how their seeds — which they grew from — came to be there. They will then sort, match or describe some wild plants. Y2 Children will learn about fruits: The seeds they contain and some ways in which they are dispersed. They may then either study a variety of fruits or explain how seeds are dispersed in their own words. Outcomes:</p>

	<p>which body parts are used for different activities</p> <p>Year 2: Children describe which body parts are used for different activities with greater detail to how it’s suited to its functions</p>	<p>Year 2: •Children know what the five senses are • Children know that eyes are used for seeing things • Children use their eyes to look carefully at pictures and objects</p>	<p>I can choose words which describe how materials feel.</p> <p>Year 2: I can choose words which describe how materials look.</p> <p>I can choose words which describe how materials feel.</p> <p>I can describe the properties of everyday materials</p>	<p>Year 1:I can explain why different materials can be used to make the same object.</p> <p>I can tell you which properties make some materials suitable for different purposes.</p> <p>Year 2: I can explain why different materials can be used to make the same object.</p> <p>I can tell you which properties make materials suitable for different purposes.</p> <p>I can tell you which properties make some materials unsuitable for different purposes</p>	<p>Year 1: I can name and order the stages of the human life cycle.</p> <p>I can explore how humans grow and develop through each stage.</p> <p>Year 2: I can name and order the stages of the human life cycle.</p> <p>I can explore how humans grow and develop through each stage.</p> <p>I can ask and answer a question to compare different human life stages.</p>	<p>Year 1: Children name wild plants • Children describe the features of different wild plants • Children identify similarities and differences between plants</p> <p>Year 2: Children explain why seeds need to be dispersed? • Can children give suggestions as to why fruits have so many seeds? • Can children describe some of the ways in which seeds can be dispersed?</p>
Lesson 4	<p>Year 1: To explore the sense of taste.</p> <p>Year 2: To explore the sense of taste and use appropriate vocabulary to describe different flavours.</p> <p>Activities: Children will think about the different tastes of foods and use a range of vocabulary to describe taste. They may either sort and describe given images of foods, or conduct a taste investigation.</p> <p>Outcomes:</p> <p>Year 1: Children know that we use our mouths to taste things • Children begin to use appropriate vocabulary to describe different flavour • Children express preferences about foods they like and dislike</p> <p>Year 2: Children know that we use our mouths to taste things • Children use appropriate vocabulary to describe different flavour • Children express preferences about foods they like and dislike</p>	<p>Year 1:To identify sources of light</p> <p>Year 2: To investigate different sources of light</p> <p>Activities: Y1 – identifying what are sources of light and what are not – sorting. Y2 – investigating light sources and the strength of light they emit (i.e. lamp, computer screen, iPad screen, candle) by shining onto a black sheet/paper.</p> <p>Outcomes:</p> <p>Year 1: Children can identify sources of light</p> <p>Children begin to identify objects which reflect sources of light</p> <p>Year 2:: I can look carefully at what happens I can record what I see.</p> <p>I can test different materials by shining light onto them, in a fair way.</p> <p>I can record what happens.</p> <p>I can use what I know to choose a suitable material for an umbrella for Ted.</p> <p>I can explain why the chosen material would be a good choice.</p>	<p>Year 1: To describe the simple physical properties of a variety of everyday materials</p> <p>Year 2: To describe the simple physical properties of a variety of everyday materials by testing different objects.</p> <p>Activities: Recap properties of materials. Some properties are easier to identify. Testing properties – bendy or not, transparency, waterproof, absorbency.</p> <p>Outcomes:</p> <p>Year 1: I can identify which materials the objects are made from.</p> <p>I can test materials to see how they behave.</p> <p>I can choose words which describe how materials behave.</p> <p>Year 2: I can identify which materials the objects are made from.</p> <p>I can test materials to see how they behave.</p> <p>I can choose words which describe how materials behave.</p> <p>I can identify which materials have certain properties</p>	<p>Year 1: To find out how the shapes of solid objects made from some materials can be changed</p> <p>Year 2: To find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching</p> <p>Activities: Discuss ways shapes might be changed. Model ways items can be manipulated – twist, bend etc. Model how to try and change the shape of the objects on the tables and record. Discuss not all item’s shape can be changed.</p> <p>Outcomes:</p> <p>Year 1: I can say how the shapes of objects made from some materials can be changed.</p> <p>Year 2: I can tell you four ways the shapes of some objects can be changed.</p> <p>I can demonstrate four ways to change the shape of some objects.</p>	<p>Year 1: To describe what animals, including humans, need to survive</p> <p>Year 2: To research and describe what animals, including humans, need to survive.</p> <p>Activities: ‘What do all animals need to stay alive?’. Children identify the three basic things all animals need to survive (using the example of a dog). Discuss how some things are classed as basic needs to survive (air, water and food) and clarify that the other things are still important.</p> <p>Chd identify what need to look after a per – Y2 – identify how needs change as pet grows older. Research and create a fact file.</p> <p>Outcomes:</p> <p>Year 1: I can explain what all animals need to survive.</p> <p>Year 2: I can explain what all animals need to survive.</p> <p>I can research the answer to a question.</p> <p>I can present the answer to a question clearly.</p>	<p>Year 1: To identify and describe a range of trees.</p> <p>Year 2: To identify and describe a range of trees.</p> <p>Activities: Children will identify and name trees, then learn some differences between deciduous and evergreen trees. They may then either sort trees into groups or go tree hunting.</p> <p>Outcomes:</p> <p>Year 1: Children name some trees • Children describe the features of different trees • Children use the terms ‘evergreen’ and ‘deciduous’</p> <p>Year 2: Children name some trees • Children describe the features of different trees • Children use the terms ‘evergreen’ and ‘deciduous’</p>
Lesson 5	<p>Year 1: To sort foods into 5 food groups.</p> <p>Year 2: To design a balanced meal (A lunchbox for Harry Kane to take to training?)</p> <p>Activities: Children sort a variety of foods (real) into the five food groups. – draw/cut and stick onto balanced meal plate. Year 2 children design a lunchbox ensuring all food groups are included</p> <p>Outcomes:</p> <p>Year 1: Children know the five food groups. Children can sort foods into food groups. Children know how much of each food group they need to have for a balanced diet.</p> <p>Year 2: Children know the five food groups. Children can sort foods into food groups. Children know how much of each food group they need to have for a balanced diet. Children design a healthy lunch box taking into account the food groups and recommended amount of each type of food</p>	<p>Year 1: To explore light</p> <p>Year 2: To investigate what happens to light when it passes through different transparent objects.</p> <p>Activities: Children will learn about Isaac Newton’s work and discoveries regarding light, then conduct practical investigations where they will change the ways in which light passes through transparent objects</p> <p>Outcomes:</p> <p>Year 1: Children use their own experiences to make predictions • Children observe patterns •</p> <p>Year 2: Children use their own experiences to make predictions • Children observe patterns • Children talk about what they have found out</p>	<p>Year 1: To perform simple tests</p> <p>Year 2: To perform simple tests and use observations and ideas to suggest answers to questions</p> <p>Activities: introduce Ted and problem – he needs an umbrella making from a material which will protect him from getting wet. Show children the materials and model how to carry out, observe and record the observations to find the best material fit for purpose. Discuss findings – are children able to make a sensible decision?</p> <p>Outcomes:</p> <p>Year 1: I can look carefully at what happens to Ted.</p> <p>I can record what I see.</p> <p>I can test different materials by dropping water onto them, in a fair way.</p> <p>I can record what happens.</p> <p>I can use what I know to choose a suitable material for an umbrella for Ted.</p> <p>Year 2: I can look carefully at what happens to Ted.</p> <p>I can record what I see.</p> <p>I can test different materials by dropping water onto them, in a fair way.</p> <p>I can record what happens.</p> <p>I can use what I know to choose a suitable material for an umbrella for Ted.</p>	<p>Year 1: To find out how the shapes of solid objects made from some materials can be changed in the context of recycling</p> <p>Year 2: 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.</p> <p>Activities: What does recycling mean? Go through which materials can be recycled and look at examples that are easily found at home and school. Can children tell you which materials can be recycled? Discuss local recycling arrangements. Order the recycling process.</p> <p>Outcomes:</p> <p>Year 1: I can identify materials that can be recycled.</p> <p>I can tell you how you can recycle materials.</p> <p>I can give reasons why it’s important to recycle.</p> <p>Year 2: I can identify materials that can be recycled.</p> <p>I can tell you how you can recycle materials.</p> <p>I can tell you how plastic materials are sorted and changed into new products.</p> <p>I can give reasons why it’s important to recycle.</p>	<p>Builds on healthy living in Autumn 1</p> <p>Year 1:</p> <p>Year 2: To investigate the importance of healthy eating and hygiene.</p> <p>Activities: Review the three basic needs that all animals have (air, water and food), and how exercise is important for humans to stay healthy. Ask the children what else they think people need to help them to stay healthy. Discuss the meaning of the word ‘hygienic’</p> <p>Glitter investigation - to investigate - ‘Which is the best way to clean our hands?’ Encourage predictions.</p> <p>Outcomes:</p> <p>Year 1:I can say what I think (predict) will happen when removing germs and find out whether I was correct.</p> <p>I can explain how to wash my hands and why it is important.</p> <p>Year 2: I can use a non-fiction e/Book to find out information about healthy eating and hygiene.</p> <p>.I can say what I think (predict) will happen when removing germs and find out whether I was correct.</p> <p>I can explain how to wash my hands and why it is important.</p>	<p>Year 1: To identify the different parts of a plant.</p> <p>Year 2: To plan, carry out and evaluate an investigation into the conditions that affect germination.</p> <p>Activities: Y1 Children will identify the main parts of a variety of plants and describe their functions. They will then either examine plants (and identify features) or draw and label plant diagrams.</p> <p>Y2 Children will learn about germination, then devise tests to determine the various conditions seeds need to germinate. They may then either conduct an investigation or study and interpret a given set of results.</p> <p>Outcomes:</p> <p>Year 1: Children name the main parts of a plant • Children know parts of the plant have different functions • Children identify similarities and differences between the parts of different plants</p> <p>Year 2: Children ask questions that can be investigated scientifically and suggest how to answer them • Children plan and carry out an investigation, making sure it is a fair test • Children evaluate their results and draw conclusions</p>

			I can explain why the chosen material would be a good choice.			
Lesson 6	<p>Year 1: To describe the importance of exercise.</p> <p>Year 2: To gather and record data to help answer a question. (Investigation - What is the best exercise to keep Harry fit?)</p> <p>Outcomes: Explore how our bodies change during exercise.</p> <p>Year 1: Children can say how their bodies are before, during and after exercise</p> <p>Year 2: Children can say how their bodies are before, during and after exercise. Children gather evidence from observations. Children record data to help answer a question</p>	<p>Year 1: To compare materials on how reflective they are</p> <p>Year 2: To test how reflective different materials are</p> <p>Activities: Scenario – Santa needs a reflective strips on his Santa suit to keep him safe. Model testing the material to judge how reflective they are – model completing the record sheet/table. Draw on reflective strips on Santa suit.</p> <p>Outcomes:</p> <p>Year 1: Children will test a range of materials.</p> <p>Children will make observations</p> <p>Year 2: Children will test a range of materials.</p> <p>Children will make observations and record their results</p> <p>Children will understand the need to keep the test fair</p> <p>Children will identify ways they have kept the test fair.</p>	<p>Year 1: To compare and group together a variety of everyday materials on the basis of their simple physical properties</p> <p>Year 2:</p> <p>Activities: Look at different objects – discuss how we could describe their properties. Using sorting circles/hoops, model how to label each circle e.g. rough and smooth. Ask children with a rough object to put it in the circle. Then ask children with a smooth object to put it in the other circle. Identify objects which are both rough and smooth. Where could we put them? Model how to overlap the circles to include any objects which have both properties.</p> <p>Outcomes:</p> <p>Year 1: I can group together objects with the same properties.</p> <p>I can compare properties of materials and say how they are the same or different.</p> <p>Year 2: I can group together objects with the same properties.</p> <p>I can compare properties of materials and say how they are the same or different.</p> <p>I can explain how I have sorted the objects.</p>	<p>Year 1: To find out about people who have developed useful new materials</p> <p>Year 2: To find out about people who have developed useful new materials</p> <p>Activities: learn about the process of macadamisation and emphasise that this was a significant change in road building. Until then rural roads were often muddy, slippery and dangerous and urban roads were cobbled making them bumpy and uncomfortable to travel over. macadam roads were developed and how the use of tar was added to stabilise them. These roads then became known as tarmac roads and then tarmac. Children discuss where they think tarmac is used today. Are children able to explain how his invention has impacted on life today?</p> <p>Outcomes:</p> <p>Year 1: I can tell you the name of the new process John McAdam invented.</p> <p>I can say how his invention has impacted on life today.</p> <p>I can tell you two interesting facts about John McAdam’s life.</p> <p>Year 2: I can tell you the name of the new process John McAdam invented.</p> <p>I can explain how his invention has impacted on life today.</p> <p>I can tell you two interesting facts about John McAdam’s life.</p>		<p>Year 1: To make observations of growing plants.</p> <p>Year 2: To observe and describe how a plant changes as it matures</p> <p>Activities: Y1 Children will identify ways in which plants change over time. They may either study and describe plants they have grown themselves, or identify ways in which plants around school have changed over time. Y2 Referring back to prior learning, children will consider how plants change over time. They may then either undertake sequencing activities, or describe stages in the growth of their own plant.</p> <p>Outcomes:</p> <p>Year 1: Children know that plants grow • Children name the main parts of a plant • Children describe and make observations about how plants change</p> <p>Year 2: Children explain how their plant has changed over time • Children use scientific words to explain each stage of the plants development, For example ‘germination’, ‘growth’, ‘leaves’, ‘stem’, ‘shoots’, ‘roots’ • Do the children understand what a plant needs to grow?</p>

Assessment Criteria

	Working Scientifically	Understanding animals including humans (Human health)	Investigating Sound and Light	Everyday Materials	Changing Materials	Investigating Living Things	Understanding Plants
Year 1	I can • ask simple questions • observe closely using simple equipment • perform simple comparative tests • identify, sort, group and classify • use my observations to help me suggest answers to questions • with guidance, begin to notice patterns and relationships • observe simple changes over time • find information using simple secondary sources	I can • identify name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. • describe the importance for humans of exercise, eating the right amounts of different types of food and hygiene.	I can • observe and name a variety of sources of light, including electric lights, flames and the Sun, explaining that we see things because light travels from them to our eyes. • observe and name a variety of sources of sound, noticing that we hear with our ears.	I can •distinguish between an object and the material from which it is made. •identify and name a variety of everyday materials •describe the simple physical properties of a variety of everyday materials. •compare and group together a variety of everyday materials on the basis of their simple physical properties.	I can •describe the simple physical properties of a variety of everyday materials. •compare a variety of everyday materials on the basis of their simple physical properties. •find out how the shapes of solid objects made from some materials can be changed	I can •identify and name a variety of common animals •notice that animals, including humans, have offspring which grow into adults. •investigate and describe the basic needs of animals •describe the importance for humans of exercise, eating the right amounts of different types of food and hygiene.	I can •Identify and name a variety of wild and common garden plants, including deciduous and ever green trees • Identify and describe the basic structure of a variety of common flowering plants/trees including roots, stem/trunk, leaves and flowers.
Year 2	I can • ask simple questions and recognise they can be answered in different ways • observe closely using simple equipment • perform simple comparative tests • identify, sort, group and classify • use my observations to help me suggest answers to questions • gather and record simple data to help me answer questions • with guidance, begin to notice patterns and relationships • use simple secondary sources • observe changes over time • communicate ideas in a variety of ways	I can • identify name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. • describe the importance for humans of exercise, eating the right amounts of different types of food and hygiene.	I can • observe and name a variety of sources of light, including electric lights, flames and the Sun, explaining that we see things because light travels from them to our eyes. •observe and name a variety of sources of sound, noticing that we hear with our ears.	I can •distinguish between an object and the material from which it is made. •identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock. •describe the simple physical properties of a variety of everyday materials. •compare and group together a variety of everyday materials on the basis of their simple physical properties.	I can •describe the simple physical properties of a variety of everyday materials. •compare and group together a variety of everyday materials on the basis of their simple physical properties. •identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick/rock, and paper/cardboard for particular uses. •find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.	I can •identify and name a variety of common animals that are birds, fish, amphibians, reptiles, mammals and invertebrates. •identify and name a variety of common animals that are carnivores, herbivores and omnivores. •describe and compare the structure of a variety of common animals (birds, fish, amphibians, reptiles, mammals and invertebrates, including pets). •notice that animals, including humans, have offspring which grow into adults. •investigate and describe the basic needs of animals, including humans, for survival (water, food and air). •describe the importance for humans of exercise, eating the right amounts of different types of food and hygiene. •identify how humans resemble their parents in many features.	I can •Identify and name a variety of common plants, including garden plants, wild plants and trees and those classified as deciduous and evergreen. • Identify and describe the basic structure of a variety of common flowering 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.