


Subjects	Objectives	Key Knowledge	Key Vocabulary	Skills	Activities/ Tasks
Science	<p>Year 1 only Everyday Materials 1.13 Distinguish between an object and the material from which it is made. 1.14 Identify and name a variety of everyday materials including wood, plastic, glass, metal, water and rock. 1.15 Describe the simple physical properties of a variety of everyday materials. 1.16 Compare and group together a variety of everyday materials on the basis on their simple physical properties.</p> <p>Year 2 only Uses of Everyday Materials 2.10 Identify and compare the suitability of a variety of everyday materials including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. 2.11 Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</p>	<ul style="list-style-type: none"> • To know the name of the material an object is made from. • To name and identify common and everyday materials. • To use words to describe and compare the properties of materials. <ul style="list-style-type: none"> • To know that certain materials are best suited for certain tasks. • To know that some materials can be changed by squashing, bending, twisting and stretching. 	wood plastic metal glass paper fabric card rock strong transparent translucent opaque absorbent flexible stretchy waterproof durable stiff rough smooth compare describe properties suitability squash bend twist identify	<p>Asking Questions & Planning Enquiries</p> <ul style="list-style-type: none"> • Explore the world around them and raise their own simple questions. • Experience different types of science enquiries, including practical activities. • Begin to recognise different ways in which they might answer scientific questions. <p>Testing, Measuring & Recording</p> <ul style="list-style-type: none"> • Carry out simple tests. • Use simple features to compare objects, materials and living things and, with help, decide how to sort and group them (identifying and classifying). • With help, they should record and communicate their findings in a range of ways and begin to use simple scientific language. <p>Concluding</p> <ul style="list-style-type: none"> • Talk about what they have found out and how they found it out. 	<p>Year 1</p> <ul style="list-style-type: none"> • To go on a materials hunt around school. Split ch into groups and focus on one material a week: wood, metal, glass, plastic, fabric, paper, rock. Can we find objects around school for each of these materials? • To make feely boards of different materials and write down a property of each material. • Investigation: Jack needs a material which is waterproof for his umbrella. To understand the term waterproof and investigate to see which materials are waterproof. • Investigation: Jack needs some curtains for his house and they need to let as little light through as possible. To introduce the terms: opaque, transparent and translucent. To investigate with torch and black card which materials let the most light through. • Investigation: To investigate how stretchy different materials are. • Thinking skills activity to sort materials into different groups. Can link to recycling. Can they sort objects into the correct recycling bin? • To make a house out of midget gems and cocktail sticks – can the wolf ‘hairdryer’ blow it down? <p>Year 2</p> <ul style="list-style-type: none"> • Complete a materials hunt around school and as part of homework to recap naming and identification of materials. • Make materials munchers using recycled cardboard boxes and feed each muncher objects made of their preferred material. • Ask questions about the materials objects are made of. Why are windows made of glass? Clothes made of fabric? • Write ridiculous materials poems imagining what it would be like if cars were made of jelly etc. • Write materials riddles by describing properties and ask children to identify the materials in each other’s riddles. • Investigate objects that can be made of different materials e.g. a chair – metal, plastic, metal, wood, partly fabric etc. What would the pros and cons be for each? • Research houses in different climates/parts of the world. What are they made of and why? Design a house for a given climate and explain why you chose the materials you did. • Complete midget gem and cocktail stick building challenge – test houses using hairdryer disguised as a wolf. • Investigate which material is best for curtains for Jack’s house. What purpose do curtains have? Use light meter to test which fabrics block the light most effectively. • Receive an email from Jack regarding a spillage of milk in the ‘House that Jack Built’. Investigate which material is the most absorbent and therefore

					<p>best for soaking up spills. Record results and reply to Jack explaining what we found out.</p> <ul style="list-style-type: none"> Understand that some materials can change shape when forces are applied to them and that some can also be changed back. Complete carousel investigation with different materials like play dough, foam, foil etc and complete a range of twists, squeezes etc. Curly-Wurly investigation – Look at world record clip of someone trying to stretch a Curly-Wurly. Can you stretch it? How long? Children predict and then T demonstrates. Can it be put back into original shape?
Art	<p>1. To use a range of materials creatively to design and make products.</p> <p>3. To develop a wide range of art and design techniques in using colour, pattern, texture, line, shape, form and space.</p>	<ul style="list-style-type: none"> To know that you can join pieces of fabric together by stitching. To know that you have to secure the stitching at the start and the end so your thread doesn't pull through. To know that fabrics were traditionally made by weaving. 	<p>needle thread fabric join stitch weave running stitch material decorate loom</p>	<p>Exploring/ Evaluating and developing ideas</p> <ul style="list-style-type: none"> Work from observations and known objects Develop and share their ideas, try things out and make changes Begin to think what materials best suit the task <p>Texture (textiles and collage)</p> <ul style="list-style-type: none"> Apply decoration to fabric using beads, buttons, feathers etc Weave using different materials – paper, carrier bags, twigs, fabric Start to explore simple stitches to join fabric together <p>Form (Sculpture)</p> <ul style="list-style-type: none"> Use materials to make known objects for a purpose i.e. puppet 	<ul style="list-style-type: none"> To create a puppet using felt linked to fairy tales and traditional tales. <ul style="list-style-type: none"> To explore and practise simple stitches to join fabric together. Let children have a go at threading a needle and practise a simple running stitch on a piece of binca. To add decoration to their puppets using a range of media e.g. beads, buttons, feathers, felt. To weave recycled material on a basic loom using a range of fabrics and textiles. <ul style="list-style-type: none"> To start by weaving paper to understand how to weave. Move onto weaving with wool on a cardboard frame. This will also help towards simple running stitch. 
DT	<p>1a. Design purposeful, functional appealing products for themselves and others based on design criteria.</p> <p>1b. Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and where appropriate information and communication technology.</p> <p>2a. Select from and use a range of tools and equipment to perform practical tasks (for example, cutting, shaping, joining and finishing).</p>	<ul style="list-style-type: none"> To know what materials a house can be made out of. To know which materials to use to construct their own house. To know how to make their model stronger. To understand the importance of finishing their product to make it appealing. To know which tools or materials are best suited for each element of the task. 	<p>plan design evaluate model template product materials tools strength strong transparent join attach fold structure</p>	<p>Design</p> <ul style="list-style-type: none"> have own ideas and plan what to do next explain what I want to do and describe how I may do it explain purpose of product, how it will work and how it will be suitable for the user describe design using pictures, words, models, diagrams design products for myself and others following design criteria choose best tools and materials, and explain choices research and use knowledge of existing products to produce ideas <p>Make</p> <ul style="list-style-type: none"> explain what I am making and why it fits the purpose make suggestions as to what I need to do next. 	<p>House</p> <ul style="list-style-type: none"> Look at examples of houses and their features. Research different houses from around the world and the materials used. To design and construct a house for Jack using a range of materials and following a given criteria: roof, door that opens, at least one window with transparent material, a chimney. Choose materials and tools best suited to the task. Describe their design plans to their peers. DT day to make houses, using their plans. Evaluate completed houses by explaining what worked and what could be improved upon. <p>Puppet</p> <ul style="list-style-type: none"> See also Art objectives. Focus on explaining the purpose of the product and its suitability, choose and measure materials, joining textiles in different ways and explain how it is done. <p>Midget Gem House</p> <ul style="list-style-type: none"> Complete midget gem and cocktail stick building challenge – test houses using hairdryer disguised as a wolf. Focus on making a product that is strong and can stand up without being blown over. (See also Science activities) <p>Newspaper Construction</p>

	<p>2b. Select from and use a wide range of materials and components including construction materials, textiles and ingredients according to their characteristics. 3a. Explore and evaluate a range of existing products. 3b. Evaluate their ideas and products against design criteria. 4a. Build structures exploring how they can be made stronger, stiffer and more stable.</p>			<ul style="list-style-type: none"> • join materials/components together in different ways • measure, mark out, cut and shape materials and components, with support. • describe which tools I'm using and why • choose suitable materials and explain choices depending on characteristics. • use finishing techniques to make product look good • work safely and hygienically <p>Evaluate</p> <ul style="list-style-type: none"> • describe what went well, thinking about design criteria • talk about existing products considering: use, materials, how they work, audience, where they might be used; express personal opinion • evaluate how good existing products are • talk about what I would do differently if I were to do it again and why <p>Technical Knowledge</p> <ul style="list-style-type: none"> • choose and measure materials/textiles • describe some different characteristics of materials • join materials/textiles together in different ways and explain how it was done • use joining, rolling or folding to make it stronger • understand that a 3D textile structure can be made from two identical fabric shapes. • use own ideas to try to make product stronger 	<ul style="list-style-type: none"> • Use joining, rolling and folding techniques to make a newspaper structure that is stronger than the example given. Challenges could be to build a bridge that can carry a car or a tower that doesn't fall over.
Writing	Refer to Writing Progression Sheets for relevant year group objectives.	See writing progression sheets.	See writing progression sheets.	See writing progression sheets.	<p>Year 1</p> <ul style="list-style-type: none"> • Recount of summer holidays • To discuss what a traditional tale is – recap on work from Reception. • Create a wanted poster for the wolf • Sequence the story of the 3 little pigs • Drama – act out the story of the 3 little pigs • Retell the story of the 3 little pigs <p>Year 2</p> <ul style="list-style-type: none"> • Share a range of traditional tales and retell orally and using drama. Recognise key features. • Retell stories in own words. • Hot seat characters from these stories. • Write a letter to the wolf in the Three Little Pigs asking I'm why he is so mean and persuading him to stop behaving this way. • Read alternative versions of trad tales such as 'The true Story of the Three Little Pigs'. Explore stories told from

					<ul style="list-style-type: none"> Letter to the wolf asking him questions Look at alternatives to the 3 little pigs and retell the true story of the 3 little pigs told from the point of view of the wolf. Poem – I wish I lived in a use adjectives to describe the different places they could live. Instructions on how to make their glove puppet. Learn the rhyme – The House that Jack Built. 	<ul style="list-style-type: none"> different points of view. Tell Little Red from point of view of the wolf. Is he a victim? Learn the rhyme – The House that Jack Built Email reply to Jack re absorbency test Write riddles describing materials Write poems about ridiculous materials – What if...?
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Science Autumn Y1	Seasonal Changes 1.17 Observe changes across the four seasons. 1.18 Observe and describe weather associated with the seasons and how day length varies.	<ul style="list-style-type: none"> To name the four seasons. To know the characteristics for the season autumn. To know that daylight hours become shorter in the autumn. To know that the weather starts to get colder. To know that deciduous trees lose their leaves in the autumn. 	autumn season daylight weather colder rain deciduous hibernate	<p>Testing, Measuring & Recording</p> <ul style="list-style-type: none"> Observe closely using simple equipment With help, observe changes over time <p>Concluding</p> <ul style="list-style-type: none"> With guidance, they should begin to notice patterns and relationships Talk about what they have found out and how they found it out 	<ul style="list-style-type: none"> Create a signs of autumn display with a season tray in the classroom and collect seasonal items found in nature to observe and discuss in the classroom. Could create a class big book entitled 'Our school through the year' where the class can add to it and annotate to show their understanding of the seasons. In autumn investigate why some leaves change colour (Nicky Waller Science book pg 60). Around the end of October, children should observe the mornings and evenings are getting darker and the days are getting shorter. To talk about what time it starts getting dark on the evening. Can link to time and Y1 maths objectives.
Science Autumn Y2	Seasonal Changes 1.17 Observe changes across the four seasons. 1.18 Observe and describe weather associated with the seasons and how day length varies.	<ul style="list-style-type: none"> To know that animals often hibernate in the autumn. To recognise weather patterns associated with autumn. 		<p>Testing, Measuring & Recording</p> <ul style="list-style-type: none"> Observe closely using simple equipment With help, observe changes over time Use simple measurements and equipment (e.g. hand lenses, egg timers) to gather data Record simple data. <p>Concluding</p> <ul style="list-style-type: none"> With guidance, they should begin to notice patterns and relationships Talk about what they have found out and how they found it out 	<ul style="list-style-type: none"> Plant bulbs which should appear in the spring. At the start of the year, 'adopt' a tree in the school grounds and take photos, sketch, paint, discuss what they notice about the tree later and compare to past seasons. Could start a four part sketch, drawing the same tree each season. Photograph this tree all year, maybe once a week and combine photos to make a time lapse video showing changes throughout the year. Complete a weekly temperature chart and record temperature each week for comparison over the year. Complete signs of autumn sheets where children have to spot signs of the seasons. To collect pinecones and notice that cones are usually open and learn about how this enables the seeds inside to be dispersed by the wind. Compare an open cone to what happens when they hold one under water for several minutes. Why does this happen?