Science Progression of Skills and Knowledge Everyday materials

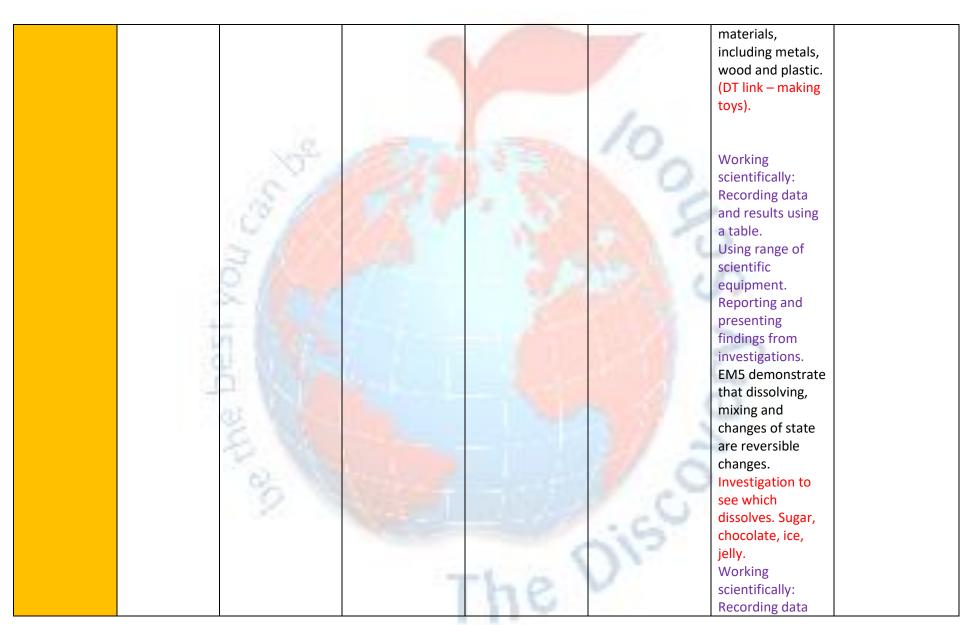
Key to understanding this document: Black = National Curriculum objectives Red = Knowledge/Skills to be taught Green = Resources to be used

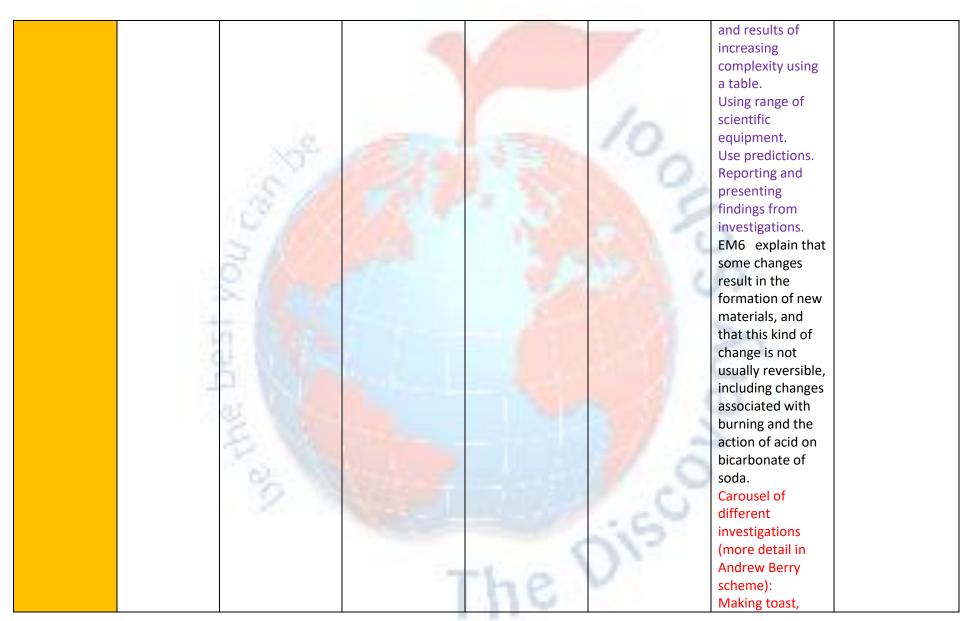
Area of	<u>EYFS</u>	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<u>Learning</u>							
<u>Everyday</u>		Working	Working		//)	Working	
<u>materials</u>		scientifically:	scientifically:	1 = 1 h		scientifically:	
		Identifying and	Performing a			Recording data	
		classifying as part	simple test.	1 2 2 2		and results of	
		of group.	Using	4 00		increasing	
		EM1 distinguish	observations to			complexity.	
		between an	answer simple	1 5000)	
		object and the	questions.	200	A Decided in	Taking	
		material from	EM1 identify and	535 41	The second second	measurements	
		which it is made.	compare the	25,000	_	using a range of	
		Children to use	suitability of a	5		scientific	
		sorting hoops to	variety of			equipment.	
		sort materials	everyday			Reporting and	
		into groups	materials,			presenting	
		(working as small	including wood,		2.0	findings in a	
		groups). Children	metal, plastic,			conclusion.	
		then post-it note	glass, brick, rock,		1		
		the name of the	paper and			EM1 compare	
		material for each	cardboard for			and group	
		hoop.	different uses.			together	
		10	Children to make		100	everyday	
		0.00	something e.g.		100	materials on the	
			houses. Which		1000	basis of their	
			material is best	- 6	11-	properties,	
			suitable?		. 7	including their	
			Children to make	100	Sec.	hardness,	
			a prediction of	1110		solubility,	

Working which material transparency, will be most scientifically: conductivity Identifying and (electrical and effective. classifying. thermal), and Working response to EM2- identify scientifically: magnets. and name a Children have a Performing a variety of simple test. selection of everyday Gathering and objects on their materials, recording data. tables to test. including wood, plastic, glass, Using Children must observations to test based on metal, water, and answer questions. their properties. rock. Material EM2 find out how Teacher can give children an idea detectives- hunt the shapes of around the school solid objects of how to test made from some and then children to find materials and record in materials can be can generate their own changed by simple scaffolded investigations table. Pictures squashing, could be used to bending, twisting afterwards. Children to and stretching. support LA Children to make record results in children. a prediction. their own table. Children then Working investigate a Working scientifically: scientifically: range of materials Recording data Using to see which observations and bend, stretch, and results of ideas to suggest squash and twist. increasing complexity using answers to a table. questions.

Gathering and Using a range of recording data to scientific help answer equipment. questions. Reporting results in a conclusion. EM3 describe the EM2 know that some materials simple physical properties of a will dissolve in variety of liquid to form a solution, and everyday materials describe how to Children are able recover a to identify the substance from a basic properties solution. of materials. E.g. Testing different Wood is strong. materials to see Feely boxes could which dissolve be used where salt, sugar, children put their vitamin tablet. hand into a box Working and describe the scientifically: simple properties of the material. Recording data Children record in and results. Using scaffolded table. range of scientific equipment. Working Reporting and scientifically: presenting Observing closely findings from using simple investigations. EM3 use equipment. knowledge of solids, liquids and

Performing a gases to decide how mixtures simple test. Identifying and might be classifying. separated, EM4 compare including through filtering, sieving and group together a variety and evaporating. of everyday Acting out solids, materials on the liquids and gases. basis of their Filtering activity simple physical to see which filters/ does not. properties. Use salt for Pose the question evaporation 'What is the best investigation. material for an umbrella? '-Working scientifically: focus on materials that are Planning different waterproof/ not types of scientific waterproof. enquiry. Identifying 'Property chain' scientific one child selects evidence that has an object and been used to describes the support ideas. EM4 give property e.g. 'my rock is rough'. reasons, based on The next child evidence from says 'your rock is comparative and rough my ruler is fair tests, for the bendy'. particular uses of everyday





	Car Se		100	Bicarbonate of soda experiment - mixing vinegar and bicarbonate of soda together to produce carbon dioxide. Indigestion tablet in water. Then put balloon over the top to see the balloon expand.	
Key Vocabulary	Wood, plastic, glass, metal, water, rock, hard, soft, stretchy, stiff, dull, rough, smooth, bendy, not bendy, absorbent, transparent.	Squash, bend, stretch, twist, solid.		Hardness, solubility, transparency, conductivity, electrical, thermal, magnetic, filtering, sieving, evaporation, fair test, dissolving, mixing, reversible change, bicarbonate of soda.	
			Die		

Resources		House materials-		-	Bicarbonate of	
		Wood, stick,	100		soda, white	
		straw, stones, etc.	170		vinegar, candles,	
					triangular burning	
		Materials to	15	1.0	frames, salt,	
		bend, stretch,		1	sugar, ice,	
	(49	twist.	-	//)	chocolate, jelly,	
	100	4.00			balloons,	
					indigestion	
	5 /				tablets.	

