Year 7 Chemistry Curriculum – 2022-23

	Autumn Term		Spring Term		Summer Term	
	1	2	1	2	1	2
Key Concepts	Matter		Reactions		Earth	
National Curriculum Knowledge & Understanding	Particle Mo el * The properties of the di f erent states of matter (solid li ! uid and gas" in terms of the particle model including gas pressure * Changes of state in terms of the particle model# * Conser$ation of material and of mass and re$ersi%ility in melting free&ing e$aporation su%limation condensation dissol$ing * 'imilarities and di f erences including density di f erences %etween solids li ! uids and gases * (rownian motion in gases	Pure an !mpure su"stances * The concept of a pure su%stance *) i*tures including dissol$ing * +i f usion in terms of the particle model * 'imple techni ! ues for separating mi*tures, -ltration e$aporation distillation and chromatography * The identi-cation of pure su%stances#	Aci s an Al#alis * +e-ning acids and al . alis in terms of neutralisation reactions * The p / scale for measuring acidity0al . alinity1 and indicators * Chemical reactions as the rearrangement of atoms * Representing chemical reactions using e ! uations	Metals an $on-Metals * The 2eriodic Ta%le * The properties of metals and non3metals * Chemical reactions as the rearrangement of atoms * Representing chemical reactions using e ! uations * The chemical properties of metal and non3 metal o*ides with respect to acidity * Reactions of acids with metals to produce a salt plus hydrogen * Reactions of acids with al . alis to produce a salt plus water	%arths Structure * The composition of the Earth * The structure of the Earth * The roc . cycle and the formation of igneous sedimentary and metamorphic roc . s * 2roperties of ceramics#	&eyon the Atmosphere ' 4ur 'un as a star other stars in our gala*y other gala*ies ' The seasons and the Earth5s tilt day length at di f erent times of year in di f erent hemispheres ' The light year as a unit of astronomical distance * Use and deri$e simple e ! uations and carry out appropriate calculations * Underta . e %asic data analysis including simple statistical techni ! ues#

	*+i f usion in li!uids and gases dri$en %y di f erences in concentration * The di f erence %etween chemical and physical changes					
6ssessment	'K7) 2 ('outhmoor Key 7nformati$e) ar.ing 2oint for each unit of wor. co$ered"8 'eparating) i*tures 8	End of Term 0 Unit 'ummati$e 6ssessment8) atter8 8	'K7) 288 Teacher 6ssessment88 6cids and 6l.alis 8	End of Term 0 Unit 'ummati$e 6ssessment88 Reactions 8 8 8	'K7) 288 Teacher 6ssessment Earth 8	End of 9ear 'ummati$e88 6ssessment
: hy this; : hy now;	6 %asic understanding of the particle model is the heart of all %ranches of chemistry which is why it is the -rst module to %e taught in year < chemistry# This must %e studied at this point as the module 2ure and 7mpure 'u%stances inoles the mo$ement of particles# 7t references lin.s	2upils ha$e prior .nowledge of solutions from K'=# This will %e %uilt on ena%ling pupils to e*plain how separation techni!ues wor.# 2ure and 7mpure su%stances is taught early in year < as it de$elops aspects of the 2article) odel module such as su%stances are made from particles and these can %e a	6cids and 6l.alis is taught at this point as pupils now .now all su%stances are made up of particles %ut an understanding of neutralisation has to %e addressed %efore pupils can %egin to study the) etals and Non3 metals topic when di f erent types of neutralisation reactions are in$estigated#	This learning module is at this point as it ta.es concepts from each of the pre$ious modules i#e particles solutions and neutralisation and sews them together while still opening opportunities for continual learning in su%se!uent modules# >or e*ample in Types of	>rom K'= pupils will already .now fossils are found in roc.s# This unit is taught later in the year as pupils needed to pre$iously learn a%out mi*tures in 2ure and 7mpure 'u%stances and the concept of acids %efore chemical weathering in the roc. cycle could %e understood# This unit will e*plore	This topic lin.s to K'= as pupils were taught a%out Earth and 'pace# This now triangulates ma.ing ties with the pre$ious topic of Earths 'tructure and the 2article) odel as pupils will disco$er that the outer planets are made from gas whereas the inner planets are made from roc. li.e the Earth# This unit %uilds a

			out and suggest improvements in their work.