Curriculum Overview: Science							
		Scie	ence at Corpus Christi Ca	tholic Primary			
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	
Reception				BRITISH SCIENCE WEEK 2017	My Kirzbest Word Her: starsmb		
	Who can help me?	What festivals are	Who lives behind	Who lives in my	Who lives in my	Where will I travel to?	
		important to me?	this door?	imagination?	garden?		
	All about me /		Alive and Kicking/			Transport/Journeys	
	People who help us.	Festivals/	Den Man (Inspiration		Mini-beasts		
	Planting seeds	Celebrations Diwali Dancing	day)	Science week: 9 th March			
	Autumn				Meet a creature.		
	Coverage in year						
	group						

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	ANIMALS including	HUMANS		Everyday Materials	Year 1 Plants	Flower Stem Leaves Roots
	Animals, includin * Identify and compare con- humans * Identify and name bar * Identify and name a var animals than carnivores, herbivores * describe and compare to variety content of the body and say which para associated to each sense	g humans ommon animals inc s asic body parts riety of common t are and omnivores the structure of a of imals label the basic parts rt of the body is with se.	Living things and their habitats *explore and compare the differences between things that are living, dead, and things that have never been alive *identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other * identify and name a variety of plants and animals in their habitats, including micro- habitats *describe how animals obtain their food from plants and other animals, using the idea of a simple food chain and	Everyday materials * Distinguish between materials and objects * Id and name common materials * Describe simple properties of material *Compare and classify materials *find out how the shapes of objects can be changed by squashing, bending etc.	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.	Plants (YEAR 3 LINKED) *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.
			identify and name different sources of food.			

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 2	A contraction			Uses of Everyday Materials	Plants • Flowering plants have: • Flowerin	Flower Stem Leaves Roots
	Animals, includin	ig humans	Living things and their	Uses of every day	Plants	Plants (YEAR 3 LINKED)
	*notice that animals, inclu	iding humans, have	habitats	materials	*observe and describe	*observe and describe
	offspring which grow into adults		*explore and compare the	*identify and compare	how	how
	*find out about and describ	be the basic needs of	differences between things	the uses of a variety of	seeds and bulbs grow	seeds and bulbs grow
	animals, inc humans, for si	urvival (water, food	that are living, dead, and	everyday	into	into
	and air)	things that have never been	materials, including	mature plants	mature plants
	*describe the importan	ce for humans of	alive	wood, metal, plastic,	* find out and describe	* find out and describe
	exercise	<u>,</u>	*identify that most living	glass, brick, rock,	how	how
	eating the right amounts o	of different types of	things live in habitats to	paper and cardboard	plants need water, light	plants need water, light
	food,		which they are suited and	*compare how things	and	and
	and hygie	ne.	describe how different	move on different	a suitable temperature	a suitable temperature
			habitats provide for the	surfaces.	to	to
			basic needs of different		grow and stay healthy.	grow and stay healthy.
			kinds of animals and plants,			
			and			
			how they depend on each			
			other			
			* identify and name a			
			variety of plants and			
			animals in their			
			habitats, including micro-			
			habitats			
			*describe how animals			
			obtain their food from			
			plants and other animals,			
			using the idea of a simple			
			food chain, and			
			identify and name different			
			sources of food.			

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	
Year 3	Chemical C - A change in which one or n converted into different su Chemical Change - Signs of a Chemical Change - Color Change - Golor Change - Gas is Released - Temperature Change - Precipitate – Solid falls out - Substance Disappears	Chemical Changes • A change in which one or more substances are converted into different substances is called a Change • Calor Change • Calor Change • Calor Change • Calor Change • Calor Change • Chemistry		ALERDANICS DEL MARCONSE WEIGHT Yoga ALERDANICS DEL MARCONSE DEL MARCON			
	Chem Chemical Chemical Know why not all flames and the flame is affected by the Name some ch Use simple scientific eq (ammeters, batter Describe electrop Choose appropriate numb observ Recognise a ch Link uses of materials to prop Name a range of c Learn that chemical reacti irreve Know that chemical react differen Give examples of some of rates of a reaction e.g. t cata Data Gathering Graphing and ta	istry Changes re orange and the colour of chemicals which are burning. emical changes. uipment for electrolysis ies and electrodes) lating with copper. wers for measurements and vations. emical reaction. to their characteristics or erties. chemical reactions. ons are either reversible or ersible ctions occur at a range of t speeds. The factors that affect the emperature, movement, lysts. cand Analysis abulating data	Biolo <u>Human Health</u> Develop the skill of evaluati Make predictions about w cause the biggest cha Learn that we breathe in o bodies and remov Learn that different forms of rate to Develop the skill of record investi Be able to make predictive exercise will cause the big Learn that our heart beats far harder to deliver mov Know that the heart is a around t Learn that different forms of char Know muscles are the parts of Know how muscles can he stronger and larg Know that animals with skelov to the Develop the skill of evaluat improve experi Ensure results are ' <i>reliable</i> ' identical exert of the skelow Be able to explain why soo	Ygy and Fitness ng a scientific investigation. which types of exercise will nge in breathing rate. rder to get oxygen into our we carbon dioxide. of exercise cause breathing change. ing and analysing scientific gation. ons about which types of gest change in heart rate. ister when our muscles work ore oxygen to them. 'yoump' and pumps blood he body. Fexercise cause heart rate to nge. of the body that permit us to we. y relaxing and contracting. be trained to make them er e.g. for sports. etons have muscles attached bones. ing experiments in order to imental design. by checking data from other typeriments. me data is VALID and why	Ph Energy Develop the skill of being a t Develop the skill of being ab Depend Develop the skill of being a Develop the skill of being a t Learn that Energy is a 'com different t Learn that Energy is a 'com different t Learn that 'Energy Be able to describe in sim energy Develop the skill of stati Practise the skill of stati Practise the skill of stati Develop the skill of stati Vunderstand that materials f Develop the skill of stati Practise the skill of stati Practise the skill of stati Practise the skill of stati Develop the skill of stati Develop the skill of stati Develop the skill of stati Develop the skill of stati Discuss heat I Observe demonstrations Apply their knowledge and warm clothing by creating cl State a range of independen an investigation Identify areas for develo Be able to carry out a simple	ysics and Sound ble to ask a question that can be ested. le to determine Independent and ent variables. ble to ask a question that can be ested. uplex' word and there are lots of ypes of energy. makes things happen'. ple terms the different types of around them. ng and justifying a prediction. ting a method for a scientific teriment. energy and how to apply it to ations and objects. nave different thermal properties. ng and justifying a prediction. ting a method for a scientific teriment. energy and how to apply it to ations and objects. nave different thermal properties. ng and justifying a prediction. ting a method for a scientific teriment. oss by evaporation. for conduction and convection. understanding of heat transfer to a design for an item of outdoor othing. t and dependent variables are for with some confidence. pment in their test procedure. e scientific experiment safely and	

 Some organisms have endoskeletons and others have exoskeletons. Know that the bones of the body are all different is size and shape. Know that some vitamins and minerals are beneficial to strong bones. Know that skeletons provide support and protection. Know that drugs are chemicals that change the way in
 In the body normally functions. Understand that some drugs are beneficial but only when given by an adult. Gather evidence to prove/disprove a prediction Gather evidence to prove/disprove a prediction Recognise warning labels on some products. Know how to make informed choices about drugs. Learn to apprediate how tricky it often is to obtain 'accurate' data. Develop the skill of thinking of scientific questions to test. Understand that eating the correct types and amounts of food help humans to stay healthy. Identify parts of the digestive system. State clearly all of the independer controlled in an e Learn that Kinetic energy is Link the operation of a vacuum ba the idea of air particles tr Learn that it is often very difficul experiments with any degree of isstate clearly all of the independer controlled in an e Learn that it is often very difficul experiments with any degree of isstate clearly all of the independer controlled in an e Learn that it soften very difficul experiments with any degree of isstate clearly all of the independer controlled in an e Learn that it is often very difficul experiments with any degree of isstate clearly all of the independer controlled in an e Learn that it is often very difficul experiments with any degree of isstate clearly all of the independer controlled in an e Develop the skill of deciding why Variables to test in ar
Learn that Kinetic energy is

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 4	Chemical C - A change in which one or mu- converted into different subs- Chemical Change - Signs of a Chemical Change: - Color Change - Gas is Released - Temperature Change - Precipitate – Solid falls out of - Substance Disappears	hanges ore substances are stances is called a	HAKE IT HAAPPEN BUKKA	AERODICE DE PHYSICAL		The second secon
	Chem	istry	Biolo	gy	Ph	ysics
	Chemical See Year Identify common chemica Know that hydrogels are class they change shape when environment – this determ Develop the skill of using s (ammeters, batteri Collect data choosing a measurements a Be able to analyse a chemical u in state and where ex Give examples of slow, med rusting, growth of organisms, <u>Data Gathering</u> Graphing and ta	Changes 3 plus- I changes in everyday life. ed as smart materials because there is a change in their ines their ability to absorb. imple scientific equipment es and electrodes). ppropriate numbers for ind observations reaction and describe changes ach product ends up. ium and fast reactions e.g. – fermentation, and explosions. and Analysis abulating data	Human Health See Year Th • Develop the skill of identi experiment and sugges • Understand that the lungs exp contract wher • Develop the skill of plotting an • Know parts of the circulatory cells • Realise that there are often 'p are important for making sc • Learn that muscles give you • Explain why comparing their d 'not reliable' if the experi • Suggest ways in which to i • Use data recorded to prove explair • Develop the skill of compari • Design a simple experimen meaning • Understand the functions of p	and Fitness ree plus - fying problems within an t ways of improving it. and when you breathe in and n you exhale. d presenting data graphically. system, and the role blood olay. atterns' in science and these ientific predictions to test. It the shape that you have. atta with some experiments is ments are not identical. mprove an investigation. /disprove a prediction and why. ng group data for analysis. t to test that will generate ful data. warts of the digestive system.	Energy a See Year Develop the skill of being Ask relevant questions and enquiries Set up simple practical enq Devise a physical model for Explain simply the cha Recognise that objects that and these can be categor Be able to list a variety of of flu Explore ideas and raise diffe plan the most appropriate t answer sci Recognise that louder Explore ideas and raise Be able to explain simpl of Explain the use and importai Draw a graph of the res Apply energy transfers to h Develop the skill of recordir inve	and Sound Three plus - able to conduct an investigation. d use different types of scientific to answer them. uiries, comparative and fair tests. or testing ideas about elephants cooling. emical process taking place. are non-luminous are 'reflectors' rised as very good to very poor. objects that 'emit' light these are minous'. erent kinds of questions; select and type of scientific enquiry to use to entific questions. r sounds carry more energy. e different kinds of questions. le multi-stage energy transfers bserved. nce of a 'control' in an experiment. sults from their investigation. real-life situations such as cycle melmets. ng a whole planning section for an estigation. hprove the reliability of results.
					 Apply energy transfers to h 	real-life situations such as cycle elmets.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 5	Chemical Col - A change in which one or ma converted into different subs Chemical Change - Signs of a Chemical Change: - Color Change - Gas is Released - Temperature Change - Precipitate – Solid falls out of - Substance Disappears	hanges ore substances are stances is called a	MAKE IT HAPPEN THE	AEROBEICES DE LESSO		
	Chemical C Chemical C See year Three a Know that hydrogels are classe they change shape when environment – this determ Make a list of as many differe that you can find. What are th them 's Recognise a chemical reacti happe Identify changes which mar Be able to analyse a chemical in state and where ea Recall that exothermic reactions Give examples of slow, mediu rusting, growth of organisms, Explain the terms corross Data Gathering Granhing and ta	Changes nd Four plus – ed as smart materials because there is a change in their ines their ability to absorb. nt types of "smart materials" eir special qualities that make smart? on and explain why it has ened. y or may not be reversible. reaction and describe changes ach product ends up. ons increase temperature and decrease temperature. IIII and fast reactions e.g. – fermentation, and explosions. ion and polymerisation. and Analysis bulating data	Human Health See year Three ai • Know that smoking is very da trapped in the lu Explain the role of the lungs in th • When we exercise the muscl therefore need more oxygen to to deliver oxygen to ti • Understand that everyone has of each r • Understand that a muscle has i a bone • Know that muscl • Know that calcium is an essen to maintain a st • The bones of the body are all d that hollow cylindrical bi • Understand the harmful effe • Describe the limitations of a	57 and Fitness nd Four plus – ingerous and can leave 'tar' ungs for years. e human body. es have to work harder and and so the heart beats faster he working muscles. s naturally different amounts nuscle. to contract (shorten) to make move. les act in pairs. tial part of a healthy lifestyle rong skeleton. lifferent is size and shape and ones are the strongest. cts of some common drugs. n experimental design and the parecision accuracy and	Energy : See year Three • Learn that Energy is a 'com different types of energy, su potential, electrical, g • Learn who Galileo was and • Recognise how scientific ideas design warm clu • Collect heat loss • Be able to use scientific vocab and explai • Explain simply the in • List different colours of • Know that sounds travel • Demonstrate the link betwee • Plan different types of scienti including recognising and cont • Investigate energy stor	and Sound e and Four plus – plex' word and there are lots of uch as light, heat, sound, kinetic, ravitational and potential. how he thought about energy. s about thermal energy are used to othing and shelters. data independently. bulary with confidence to describe in phenomena. mage on the Mirascope. stars in temperature order. faster in solids but not as far. en pitch and length of air column. fic enquiries to answer questions, trolling variables where necessary. age and transfer to motion. elastic band as an energy storage
	Graphing and ta Spotting patte	bulating data erns in data	suggest ways in to improve t reliability of data f • Recognise foods which are ma be s • Understanding the limitation:	the precision, accuracy and rom experiment. Irketed as "healthy" may not io. is of an experimental design.	d • Select and plan the most appro- use to answer s • Use the term kinetic en • State some factors th • Describe what kinetic en • Use the term kinetic en • Link the operation of the air h idea of air h • Learn that 'Voltage' means the has and has • Appreciate the importance technologies f	evice. opriate type of scientific enquiry to scientific questions. hergy in the correct context. hat affect kinetic energy. energy is and give examples. hergy in the correct context. bazooka to kinetic energy and the having 'weight'. e quantity of energy that electricity is the symbol 'V'. e of science in developing new to provide energy.



 Understand the effects of some legal and illegal drugs. Learning how to examine an experimental methodology to state where it impacts on the validity of data. Make a detailed diagram with labels for each part of the digestive system. Describe what happens to food as it travels through the body. Know that enzymes aid in the breakdown of food. 	 Discuss ways to improve the reliability of test data. Use the terms <i>elastic potential</i> and <i>kinetic</i> in explanations. Explain the links between mass, speed and kinetic energy. Find out how a small toy 'spud gun' works and draw a simple diagram to illustrate the principle used. Explain the use and importance of a 'control' in an experiment. Make suggestions to control the risks identified. State some factors that affect kinetic energy. Consider the impact on the environment of waste products. Describe two alternative energy sources for transport.
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