

				Plants				
Preschool 1	Preschool 2	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Explore	Use all their	Draw	Identify and	Observe and	Identify and			(see Evolution
natural	senses in	information	name a variety	describe how	describe the			and
materials,	hands-on	from a simple	of common	seeds and	functions of			inheritance)
indoors and	exploration of	map.	wild and	bulbs grow	different parts			
outside.	natural	(Reception –	garden plants,	into mature	of flowering			
	materials.	Living things	including	plants	plants: roots,			
		and their	deciduous and		stem/trunk,			
	Explore	habitats)	evergreen	Find out and	leaves and			
	collections of		trees	describe how	flowers -			
	materials with	Explore the		plants need	explore the			
	similar and/or	natural world	Identify and	water, light	requirements			
	different	around them.	describe the	and a suitable	of plants for			
	properties.	(Reception –	basic structure	temperature	life and growth			
		Living things	of a variety of	to grow and	(air, light,			
	Plant seeds	and their	common	stay healthy.	water,			
	and care for	habitats)	flowering		nutrients from			
	growing		plants,		soil, and room			
	plants.	Describe what	including		to grow) and			
		they see, hear	trees.		how they vary			
	Understand	and feel whilst			from plant to			
	the key	outside.			plant			
	features of the	(Reception –						
	life cycle of a	Living things						
	plant and an	and their			Investigate the			
	animal.	habitats)			way in which			
					water is			
	Begin to	Recognise			transported			
	understand	some			within plants			
	the need to	environments						



	respect and	that are			Explore the			
	care for the	different to			part that			
	natural	the one in			flowers play in			
	environment	which they			the life cycle of			
	and all living	live.			flowering			
	things.	(Reception –			plants,			
		Living things			including			
		and their			pollination,			
		habitats)			seed			
					formation and			
		Understand			seed dispersal.			
		the effect of						
		changing						
		seasons on the						
		natural world						
		around them.						
		(Reception –						
		Seasonal						
		changes)						
			Anir	nals including hu	mans			
Preschool 1	Preschool 2	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Explore	Use all their	Talk about	Identify and	Notice that	Identify that	Describe the	Describe the	Identify and
natural	senses in	members of	name a variety	animals,	animals,	simple	changes as	name the main
materials,	hands-on	their	of common	including	including	functions of	humans	parts of the
indoors and	exploration of	immediate	animals	humans, have	humans, need	the basic parts	develop to old	human
outside.	natural	family and	including fish,	offspring	the right types	of the	age.	circulatory
	materials.	community.	amphibians,	which grow	and amount of	digestive		system, and
Make			reptiles, birds	into adults	nutrition, and	system in		describe the
connections	Begin to make	Name and	and mammals		that they	humans		functions of
between the	sense of their	describe	identify and	Find out about	cannot make	identify the		the heart,
features of	own life-story	people who	name a variety	and describe	their own	different types		blood vessels
their family	and family's	are familiar to	of common	the basic	food; they get	of teeth in		and blood
	history.	them.	animals that	needs of		humans and		



and other	Understand	Recognise	are carnivores,	animals,	nutrition from	their simple		Recognise the
families.	the key	some	herbivores and	including	what they eat	functions		impact of diet,
	features of the	environments	omnivores	humans, for				exercise, drugs
Notice	life cycle of a	that are		survival	Identify that	Construct and		and lifestyle
differences	plant and an	different to	Describe and	(water, food	humans and	interpret a		on the way
between	animal.	the one in	compare the	and air)	some other	variety of food		their bodies
people.		which they live	structure of a		animals have	chains,		function
	Begin to		variety of	Describe the	skeletons and	identifying		
	understand		common	importance for	muscles for	producers,		Describe the
	the need to		animals (fish,	humans of	support,	predators and		ways in which
	respect and		amphibians,	exercise,	protection and	prey.		nutrients and
	care for the		reptiles, birds	eating the	movement.			water are
	natural		and mammals,	right amounts				transported
	environment		including pets)	of different				within animals,
	and all living			types of food,				including
	things		Identify, name,	and hygiene.				humans.
			draw and label					, .
			the basic parts					(see also
			of the human					Evolution and
			body and say					inheritance)
			which part of					
			the body is					
			associated					
			with each					
	I		sense	things and their h	ahitate			
			_	_	1			
Preschool 1	Preschool 2	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6



	1				
	Draw	Explore and	C C		Describe how
senses in	information	compare the	living things	differences in	living things
hands-on	from a simple	differences	can be	the life cycles	are classified
exploration of	map.	between	grouped in a	of a mammal,	into broad
natural		things that are	variety of ways	an amphibian,	groups
materials.	Explore the	living, dead,		an insect and a	according to
	natural world	and things that	Explore and	bird	common
Explore	around them.	have never	use		observable
collections of		been alive	classification	Describe the	characteristics
materials with	Describe what		keys to help	life process of	and based on
similar and/or	they see, hear	Identify that	group, identify	reproduction	similarities and
different	and feel whilst	most living	and name a	in some plants	differences,
properties.	outside.	things live in	variety of	and animals.	including
		habitats to	living things in		micro-
Begin to	Recognise	which they are	their local and		organisms,
understand	some	suited and	wider		plants and
the need to	environments	describe how	environment		animals
respect and	that are	different			
care for the	different to	habitats	Recognise that		Give reasons
natural	the one in	provide for the	environments		for classifying
environment	which they	basic needs of	can change		plants and
and all living	live.	different kinds	and that this		animals based
things.		of animals and	can sometimes		on specific
-		plants, and	pose dangers		characteristics.
		how they	to living things.		(see also
		depend on			Evolution and
		each other			inheritance)
					,
		Identify and			
		-			
		-			
	hands-on exploration of natural materials. Explore collections of materials with similar and/or different properties. Begin to understand the need to respect and care for the natural environment	senses in hands-on exploration of natural materials.information from a simple map.materials.Explore the natural world around them.Explore collections of materials with similar and/or different properties.Describe what they see, hear and feel whilst outside.Begin to understand the need to respect and care for the and all livingRecognise the need to the one in which they understand	senses in hands-on exploration of natural materials.information from a simple map.compare the differences between things that are living, dead, and things that around them. collections of materials with similar and/or different properties.Explore the natural world around them. Describe what they see, hear and feel whilst outside.compare the different most living things live in habitats to which they are suited and the need to respect and that are different to that are different to that are different to natural the one in which they live.compare the different how never been aliveBegin to understand the need to respect and that are that are the one in which they live.Recognise suited and different different to habitatswhich they are suited and different kinds of animals and plants, and how they depend on each other	senses in hands-on exploration of naturalinformation from a simple map.compare the differences between things that are living, dead, and things that are are useliving things can be grouped in a variety of waysExplore collections of materials.Explore the natural world around them. Describe what similar and/or different properties.Explore hear and feel whilst outside.Identify that most living things live in habitats to which they are suited and different environments the one in which they basic needs of and all living things.Recognise some environments the one in which they basic needs of and all living things.Identify and name a variety of plants and and that this can can be grouped in a variety of waysIdentify and name a variety of plants and animals inRecognise that environments to living things in their local and widerIdentify and name a variety of plants and animals inIdentify and name a variety of animals in	senses in hands-on exploration of natural materials.information from a simple map.compare the differences between living, dead, and things that are living, dead, and things that are collections of materials with of learning and/or different and feel whilst properties.living, dead, and things that have never been aliveliving, dead, an amphibian, an insect and a birdBegin to care for the environment and all living things.Describe what they see, hear and feel whilst properties.Identify that nost living they see, hear and feel whilst they see, hear and feel whilst there see, hear different habitats to habitats to the need to respect and care for the different to the one in which they and all living the need to respect and care for the and all living things.living things they see, hear and animals.different they see, hear and animals.Begin to care for the and all living things.Recognise that are thabitats to basic needs of different thabitats thabitats, and how they depend on each otherRecognise that environments can change and that this can sometimes pose dangers to living things.



	1	1	1					
				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.				
Drocche el 1	Preschool 2	Descrition	T	Seasonal Changes		Veer 4	Veer F	VeerC
Preschool 1	Preschool 2	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Understand the key features of the life cycle of a plant and an animal. (Preschool 2 – Plants & Animals, excluding humans)	Explore the natural world around them. Describe what they see, hear and feel whilst outside. Understand the effect of	Observe changes across the four seasons Observe and describe weather associated with the seasons and					



		seasons on the	how day					
		natural world	length varies					
		around them.	-					
	Every	day materials (Y1)	/ Uses of everyda	ay materials (Y2)/	Properties and cl	hanges of materia	nls (Y5)	
	- -				•			
Preschool 1	Preschool 2	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Fuelere	Use all their	Know about	Diatinguich	Idontify and			Commence and	
Explore			Distinguish	Identify and			Compare and	
materials with	senses in	similarities and	between an	compare the			group together	
different	hands-on	differences	object and the	suitability of a			everyday	
properties.	exploration of	between	material from	variety of			materials on	
	natural	different	which it is	everyday			the basis of	
Explore	materials.	materials	made	materials,			their	
natural				including			properties,	
materials,	Explore	Make	Identify and	wood, metal,			including their	
indoors and	collections of	observations	name a variety	plastic, glass,			hardness,	
outside	materials with	and talk about	of everyday	brick, rock,			solubility,	
	similar and/or	why some	materials,	paper and			transparency,	
	different	things occur,	including	cardboard for			conductivity	
	properties.	and talk about	wood, plastic,	particular uses			(electrical and	
		changes	glass, metal,				thermal), and	
	Talk about the	enanges	water, and	Find out how			response to	
	differences	Know the	rock	the shapes of			magnets	
	between	properties of	IUUK	solid objects			magnets	
	materials and	some	Describe the	made from			Know that	
		materials and		some			some	
	changes they		simple physical					
	notice	suggest some	properties of a	materials can			materials will	
		of the	variety of	be changed by			dissolve in	



				ary :
purposes they	everyday	squashing,	liquid to form	
may be used	materials	bending,	a solution, and	
for.	Compare and	twisting and	Describe how	
	group together	stretching.	to recover a	
	a variety of		substance	
	everyday		from a	
	materials on		solution	
	the basis of			
	their simple		Use	
	physical		knowledge of	
	properties.		solids, liquids	
			and gases to	
			decide how	
			mixtures might	
			be separated,	
			including	
			through	
			filtering,	
			sieving and	
			evaporating -	
			give reasons,	
			based on	
			evidence from	
			comparative	
			and fair tests,	
			for the	
			particular uses	
			of everyday	
			materials,	
			including	
			metals, wood	
			and plastic	



							Demonstrate	
							that dissolving,	
							mixing and	
							changes of	
							state are	
							reversible	
							changes	
							Explain that	
							some changes	
							result in the	
							formation of	
							new materials,	
							and that this	
							kind of change	
							is not usually	
							reversible,	
							including	
							changes	
							associated	
							with burning	
							and the action	
							of acid on	
							bicarbonate of	
							soda.	
				Rocks				
Preschool 1	Preschool 2	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
							1	



Explore	Use all their	Explore the			Compare and			(see Evolution
materials with	senses in	natural world			group together			and
different	hands-on	around them.			different kinds			inheritance)
properties.	exploration of	(Reception –			of rocks on the			
	natural	Living things			basis of their			
Explore	materials.	and their			appearance			
natural	(Preschool 2 –	habitats)			and simple			
materials,	Living things	Describe what			physical			
indoors and	and their	they see, hear			properties			
outside	habitats)	and feel whilst						
		outside.			Describe in			
	Explore	(Reception –			simple terms			
	collections of	Living things			how fossils are			
	materials with	and their			formed when			
	similar and/or	habitats)			things that			
	different				have lived are			
	properties.				trapped within			
	(Preschool 2 –				rock			
	Living things							
	and their				Recognise that			
	habitats)				soils are made			
					from rocks and			
					organic			
					matter.			
				Light				
Preschool 1	Preschool 2	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6



Repeat actions	Explore how	Describe what	Recognise that	Recognise that
that have an	things work.	they see, hear	they need light	light appears
effect.		and feel whilst	in order to see	to travel in
	Talk about the	outside.	things and that	straight lines
	differences in		dark is the	
	materials and		absence of	Use the idea
	changes they		light	that light
	notice			travels in
			Notice that	straight lines
			light is	to explain that
			reflected from	objects are
			surfaces	seen because
				they give out
			Recognise that	or reflect light
			light from the	into the eye
			sun can be	
			dangerous and	Explain that
			that there are	we see things
			ways to	because light
			protect their	travels from
			eyes	light sources
				to our eyes or
			Recognise that	from light
			shadows are	sources to
			formed when	objects and
			the light from	then to our
			a light source	eyes
			is blocked by a	
			solid object	Use the idea
				that light
			Find patterns	travels in
			in the way that	straight lines
			the size of	to explain why



					shadows change			shadows have the same shape as the objects that cast them.
		·	Forces and	d magnets (Y3)/ F	orces (Y5)			
Preschool 1	Preschool 2	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Repeat actions that have an effect.	Explore how things work. Explore and talk about different forces they can feel. Talk about the differences between materials and changes they notice	Develop ideas of grouping, sequences, cause and effect- in relation to movement i.e. toys, cars, rough surfaces Familiar with the basic scientific concepts of floating, sinking and experimentati on			Compare how things move on different surfaces Notice that some forces need contact between two objects, but magnetic forces can act at a distance Observe how magnets attract or repel each other and attract some materials and not others		Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object Identify the effects of air resistance, water resistance and friction, that act between moving surfaces	



							Recognise that	
					Compare and		some	
					group together		mechanisms,	
					a variety of		including	
					everyday		levers, pulleys	
					materials on		and gears,	
					the basis of		allow a smaller	
					whether they		force to have a	
					are attracted		greater effect.	
					to a magnet,			
					and identify			
					some			
					magnetic			
					materials			
					Describe			
					magnets as			
					having two			
					poles			
					Predict			
					whether two			
					magnets will			
					attract or repel			
					each other,			
					depending on			
					which poles			
					are facing.			
		L	L	States of matter		l	l	
Preschool 1	Preschool 2	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6



					rary 2
				. Compare and	
				group	
				materials	
				together,	
				according to	
				whether they	
				are solids,	
				liquids or	
				gases	
				Observe that	
				some	
				materials	
				change state	
				when they are	
				heated or	
				cooled, and	
				measure or	
				research the	
				temperature	
				at which this	
				happens in	
				degrees	
				Celsius (°C)	
				Identify the	
				part played by	
				evaporation	
				and	
				condensation	
				in the water	
				cycle and	
				associate the	
L	1 1	I	L L		



				r		-1		
						rate of evaporation with temperature		
				Sound				
Durach and 4	Desistent 2	Descrites	No. o A	X				No. o C
Preschool 1	Preschool 2	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Repeat actions that have an effect. Describe what they see, hear and feel whilst outside.	Explore how things work.	Describe what they see, hear and feel whilst outside.			•	Identify how sounds are made, associating some of them with something vibrating Recognise that vibrations from sounds travel through a medium to the ear		
						Find patterns between the pitch of a sound and features of the		



								233 
						object that produced it		
						Find patterns between the volume of a sound and the strength of the vibrations that produced it		
						Recognise that sounds get fainter as the distance from the sound source		
				Electricity		increases		
	<b>.</b>							
Preschool 1	Preschool 2	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Repeat actions that have an effect.	Explore how things work.					Identify common appliances that run on electricity Construct a simple series electrical circuit,		Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit



			identifying and	Compare and
			naming its	give reasons
			basic parts,	for variations
			including cells,	in how
			wires, bulbs,	components
			switches and	function,
			buzzers	including the
			Suzzers	brightness of
			Identify	bulbs, the
			whether or not	loudness of
			a lamp will	buzzers and
			light in a	the on/off
			simple series	position of
			circuit, based	switches
			on whether or	Switches
			not the lamp is	Use
			part of a	recognised
			complete loop	symbols when
			with a battery	representing a
				simple circuit
			Recognise that	in a diagram.
			a switch opens	
			and closes a	
			circuit and	
			associate this	
			with whether	
			or not a lamp	
			lights in a	
			simple series	
			circuit	
			Recognise	
			some common	



						conductors and insulators, and associate metals with being good conductors.		
				Earth and Space				
Preschool 1	Preschool 2	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Explore and respond to different natural phenomena in their setting and on trips.		Explore the natural world around them. Describe what they see, hear and feel whilst outside.					Describe the movement of the Earth, and other planets, relative to the Sun in the solar system Describe the movement of the Moon relative to the Earth Describe the Sun, Earth and Moon as approximately spherical bodies	



							Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.	
(note	e for Year 6 – see I	Plants; Animals, in	cluding humans; I	Evolution and Inh Living things and t vered lower down	heir habitats; and	Rocks for how so	me of these aspec	ts have been
		Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
								Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago
								Recognise that living things produce



							offspring of the same kind, but normally offspring vary and are not identical to their parents Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to
		Working Scientifi	cally- Ongoing th	oughout the yea	r		evolution
	Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Playing and exploring – children investigate and experience things, and 'have a go'	Observing: Sensory observation of animals and plants; simple description of the world around them.	Know that we can ask questions about the world and that when we observe the world to answer these	Know that we can ask questions about the world and that when we observe the world to answer these	Know that we can ask questions and answer them by setting up scientific enquiries	Know that we can ask questions and answer them by setting up scientific enquiries	Know how to choose appropriate variables to test a hypothesis (e.g. plant height as a dependent	Know how to choose appropriate variables to test a hypothesis (e.g. plant height as a dependent



Active	Researching:	questions, this	questions, this	Know how to	Know how to	variable when	variable when
learning –	Looking at	is science	is science	make relevant	make relevant	measuring	measuring
children	objects and			predictions	predictions	effect of light	effect of light
concentrate	pictures and	Know that we	Know that we	that will be	that will be	on plant	on plant
and keep on	discussing	can use	can use	tested in a	tested in a	growth)	growth)
trying if they	what they can	magnifying	magnifying	scientific	scientific		
encounter	see.	glasses to	glasses to	enquiry	enquiry	Know how to	Know how to
difficulties,		observe	observe			identify	identify
and enjoy	Questioning:	objects closely	objects closely	Know that in a	Know that in a	conditions that	conditions that
achievements	Ask questions		Know that we	fair test one	fair test one	were	were
	about aspects	Know that we	can test our	thing is altered	thing is altered	imperfectly	imperfectly
Creating and	of their	can test our	questions to	(independent	(independent	controlled and	controlled and
thinking	familiar world	questions to	see if they are	variable) and	variable) and	can explain	can explain
critically –		see if they are	true	one thing that	one thing that	how these	how these
children have	Planning:	true		may change as	may change as	might affect	might affect
and develop	Generating a		Know that	a result is	a result is	results	results
their own	variety of	Know that	objects can be	measured	measured		
ideas, make	ideas for	objects can be	identified or	(dependent	(dependent	Know how to	Know how to
links between	testing (not	identified or	sorted into	variable) while	variable) while	accurately use	accurately use
ideas, and	always realistic	sorted into	groups based	all other	all other	further	further
develop	or	groups based	on their	conditions are	conditions are	measuring	measuring
strategies for	appropriate)	on their	observable	kept the same	kept the same	devices,	devices,
doing things		observable	properties			including	including
	Predicting:	properties		Know how to	Know how to	digital and	digital and
	Simple		Know that we	use a range of	use a range of	analogue	analogue
	predictions-	Know that we	can write	equipment to	equipment to	scales,	scales,
	what might	can write	down numbers	measure	measure	measuring	measuring
	happen?	down numbers	and words or	accurately,	accurately,	cylinders and	cylinders and
		and words or	draw pictures	including	including	beakers,	beakers,
	Measuring:	draw pictures	to record what	thermometers,	thermometers,	recognizing	recognizing
	Measure by	to record what	we find	data loggers,	data loggers,	the relative	the relative
	direct	we find		rulers and	rulers and	accuracy of	accuracy of
	comparison;			stopwatches	stopwatches	each device	each device



non-standard				
units of	Know how to	Know how to	Know how and	Know how and
measurement;	draw bar	draw bar	when to	when to
simple	charts; how to	charts; how to	repeat	repeat
comparative	label a	label a	measurements	measurements
vocabulary i.e.	diagram using	diagram using	, how to find	, how to find
bigger,	lines to	lines to	an average of	an average of
smaller.	connect	connect	a set of	a set of
	information to	information to	measurements	measurements
Reporting:	the diagram;	the diagram;	and how to	and how to
Talking about	how to use a	how to use a	recognize and	recognize and
objects and	coloured key	coloured key	remove	remove
events; simple	how to draw a	how to draw a	outliers from a	outliers from a
recording-	neat table;	neat table;	set of data,	set of data,
drawing.	how to draw a	how to draw a	justifying the	justifying the
	classification	classification	removal as a	removal as a
Interpreting:	key; how to	key; how to	potential mis-	potential mis-
Noticing	show the	show the	measurement	measurement
'which worked	relationship	relationship		Know how to
best'- simple	between an	between an	Know how to	independently
comparative	independent	independent	independently	write a simple
statements;	variable in a	variable in a	write a simple	scientific
provide simple	two-way table;	two-way table;	scientific	enquiry write-
answers to	and how to	and how to	enquiry write-	up including
initial	label specific	label specific	up including	an
questions.	results in a	results in a	an	introduction, a
	two-way table	two-way table	introduction, a	list of
			list of	equipment, a
	Know – with	Know how –	equipment, a	numbered
	structured	with	numbered	method, a
	guidance	structured	method, a	detailing of
	- how to write	guidance - to	detailing of	results and a
	a simple	write a simple		conclusion



scientific scientific results and a
enquiry write- enquiry write- conclusion Know how to
up including up including present brief
an an Know how to oral findings
introduction, a introduction, a present brief from an
list of list of oral findings enquiry,
equipment, a equipment, a from an speaking
numbered numbered enquiry, clearly and
method, a method, a speaking with
detailing of detailing of clearly and confidence
results and a results and a with and using
conclusion conclusion confidence notes where
and using necessary
Know how to Know how to notes where
precis a precis a necessary Know
scientific scientific examples of
enquiry write- enquiry write- Know instances
up into a brief up into a brief examples of where
oral discussion oral discussion instances scientific
of what was of what was where evidence has
found in a found in a scientific been used to
scientific scientific evidence has support or
enquiry enquiry been used to refute ideas or
support or arguments
Know that Know that refute ideas or (e.g. fossil
scientific scientific arguments records as
enquiries can enquiries can (e.g. fossil evidence of
suggest suggest records as natural
relationships, relationships, evidence of selection)
but that they but that they natural
do <u>not</u> prove do <u>not</u> prove selection)
whether a whether a



prediction is trueprediction is trueKnow that scientific enquiries are limited by the accuracy of the the measurements (and (and measuring equipment) and by the add by the accuracy of the the the the extent to which which which which which that repeating enquiries, measurements (and taking measurements conditions can vary even, and that repeating enquiries, measurements (and taking measurements enquiries, measurements and taking measurements and taking measures to keep keep conditions as consistent as possible can improve an enquiryKnow that the conclusions of scientificKnow that the conclusions of scientific					rary
Know that scientific enquiries are limited by the accuracy of the measurements (and measuring equipment) and by the acturation and by the extent to which which which which which scientific enquiries, measurements and by the extent to which which scientifics, measurements and by the extent to which which scientifics, measurements and taking measures to keep conditions as consistent as possible can improve an enquiryKnow that the the measurements (and measuring equipment) and by the extent to which which which scientifies, measures to keep conditions as consistent as possible can improve an enquiryKnow that the conclusions ofKnow that the conclusions of			prediction is	prediction is	
scientificscientificenquires areenquires arelimited by thelimited by theaccuracy ofaccuracy ofthethemeasurementsmeasuringequipment)equipment)and by theand by theextent toextent towhichWhichconditions canvary even, andvary even, andvary even, andthat repeatingenquires,measurementsmeasurementsand by theand by theextent toextent towhichwhichconditions canvary even, andvary even, andand takingmeasurementsmeasures tomeasures tomeasures tokeepkeepconditions asconditions asconsistent asconsistent aspossible canimprove anenquiryenquiryenquiryenquiry			true	true	
scientific enquires are limited by the accuracy of the accuracy of the measurements qnd (and (and measuring equipment) and by the extent to which conditions can vary even, and that repeating enquires, measurements and taking measurements and taking measurements and taking measures to keep keep conditions as consistent as possible can improve an enquiryscientific enquires measurements enquires, measurements and taking measures to measures to keep keep conditions as consistent as consistent as enquiryKnow that the conclusions ofKnow that the conclusions of					
enquiries are limited by the accuracy of accuracy of the measurements (and (and (and (and (and measuring equipment) and by the adby the adby the adby the and by the and y the extent to which that repeating enquiries, measurements and taking measures to keep keep conditions as consistent as possible can improve an enquiryenquiries are limited by the and by the and by the and by the and by the and that repeating enquiries, measures to keep keep conditions as consistent as possible can improve an enquiryenquiries are possible can improve an enquiryKnow that the conclusions ofKnow that the conclusions ofKnow that the conclusions of			Know that	Know that	
Imited by the   Imited by the     accuracy of   accuracy of     the   measurements     (and   (and     (measuring   measuring     equipment)   and by the     and by the   and by the     extent to   which     which   which     which   which     usage equipment)   and by the     and by the   extent to     which   which     which   which     which   which     which   and taking     enquiries,   measurements     measures to   measures to     keep   keep     conditions as   conditions as     consistent as   possible can     improve an   enquiry     Rnow that the   conclusions of			scientific	scientific	
Imited by the   Imited by the     accuracy of   accuracy of     the   measurements     (and   (and     (measuring   measuring     equipment)   and by the     and by the   and by the     extent to   which     which   which     which   which     usage equipment)   and by the     and by the   extent to     which   which     which   which     which   which     which   and taking     enquiries,   measurements     measures to   measures to     keep   keep     conditions as   conditions as     consistent as   possible can     improve an   enquiry     Rnow that the   conclusions of			enquiries are	enquiries are	
accuracy of theaccuracy of thethethemeasurements(and (and (and measuring equipment) and by the and by the extent toand by the extent toextent to whichwhichwhich conditions can vary even, and that repeating enquiries, measures to keep conditions as consistent as possible can improve an enquiryKnow that the conclusions ofconductions of conductions of					
thethethemeasurements(and(and(andmeasuringmeasuringequipment)equipment)and by theand by theextent toextent towhichwhichvary even, andvary even, andthat repeatingenquiries,enquiries,measurementsand takingand takingmeasures tokeepkeepkeepconditions asconditions asconsistent aspossible canimprove animprove anenquiryenquiryKnow that theconclusions of			accuracy of	accuracy of	
measurements   measurements   measuring     (and   (and   (and     measuring   measuring   measuring     equipment)   equipment)   equipment)     and by the   extent to   extent to     which   which   which     vary even, and   vary even, and   that repeating     enquiries,   measurements   measurements     measures to   measurements   measurements     and taking   and taking   and taking     measures to   measures to   measures to     keep   keep   conditions as     consistent as   consistent as   possible can     possible can   possible can   possible can     improve an   improve an   improve an     enquiry   enquiry   enquiry					
measuringmeasuringmeasuringequipment)and by theand by theand by theand by theextent toextent towhichwhichconditions canconditions canvary even, andvary even, andthat repeatingthat repeatingenquiries,measurementsand takingand takingmeasures tomeasures tokeepkeepconditions asconditions asconsistent aspossible canimprove animprove anenquiryenquiryKnow that theconclusions of			measurements	measurements	
measuringmeasuringmeasuringequipment)and by theand by theand by theand by theextent toextent towhichwhichconditions canconditions canvary even, andvary even, andthat repeatingthat repeatingenquiries,measurementsand takingand takingmeasures tomeasures tokeepkeepconditions asconditions asconsistent aspossible canimprove animprove anenquiryenquiryKnow that theconclusions of			(and	(and	
equipment)equipment)and by theand by theextent toextent towhichwhichconditions canconditions canvary even, andvary even, andthat repeatingthat repeatingenquiries,enquiries,measurementsand takingand takingand takingmeasures tokeepkeepkeepconditions asconditions asconsistent aspossible canimprove animprove anenquiryenquiryKnow that theconclusions of			•	-	
and by the extent to which conditions can vary even, and that repeating enquiries, measurements and taking measures to keep conditions as conditions as conditions as conditions as conditions as conditions as conditions as conditions as conditions as consistent as possible can improve an enquiryand by the extent to which			-	-	
extent toextent towhichwhichconditions canconditions canvary even, andvary even, andthat repeatingthat repeatingenquiries,enquiries,measurementsmeasurementsand takingand takingmeasures tokeepkeepconditions asconditions asconditions asconditions aspossible canimprove anenquiryenquiryenquiryknow that theconditions ofconditions ofconditions of					
whichwhichconditions canconditions canvary even, andvary even, andthat repeatingthat repeatingenquiries,enquiries,measurementsmeasurementsand takingand takingmeasures tokeepkeepkeepconditions asconditions asconsistent aspossible canimprove anenquiryenquiryenquiry					
Image: series of the series			which		
Image: series of the series			conditions can	conditions can	
Image: series of the series			vary even, and		
enquiries, measurements and taking measures to keep conditions as consistent as possible can improve an enquiryenquiries, measures to measures to keep conditions as consistent as possible can improve an enquiryKnow that the conclusions ofKnow that the conclusions of				-	
measurements   measurements     and taking   and taking     measures to   measures to     keep   keep     conditions as   conditions as     consistent as   possible can     improve an   enquiry     enquiry   Know that the     Know that the   conclusions of				. –	
and taking   and taking     measures to   measures to     keep   keep     conditions as   conditions as     consistent as   possible can     improve an   improve an     enquiry   enquiry     Know that the   conclusions of			•	•	
measures to   measures to   measures to     keep   keep   conditions as     conditions as   consistent as   possible can     possible can   improve an   improve an     enquiry   enquiry   enquiry     Know that the   conclusions of   conclusions of					
keep   keep     conditions as   conditions as     consistent as   possible can     improve an   enquiry     enquiry   enquiry			-	-	
Image: state of the state					
Image: state of the state			•	•	
Image: Second					
improve an enquiry improve an enquiry   Know that the conclusions of conclusions of					
enquiry enquiry   Know that the conclusions of conclusions of			•		
Know that the conclusions of conclusions of			-		
conclusions of conclusions of			-1- /	-1 /	
conclusions of conclusions of			Know that the	Know that the	
			scientific	scientific	



				nary
		enquiries can	enquiries can	
		lead to further	lead to further	
		questions,	questions,	
		where results	where results	
		can be clarified	can be clarified	
		or extended to	or extended to	
		different	different	
		contexts (e.g.	contexts (e.g.	
		effect of	effect of	
		changing	changing	
		sunlight on a	sunlight on a	
		plant – does	plant – does	
		this work with	this work with	
		other plants /	other plants /	
		different types	different types	
		of light / etc)	of light / etc)	
		Know that	Know that	
		they can draw	they can draw	
		conclusions	conclusions	
		from the	from the	
		findings of	findings of	
		other	other	
		scientists	scientists	
		Know that a	Know that a	
		theory is an	theory is an	
		explanation of	explanation of	
		observations	observations	
		that has been	that has been	
		tested to some	tested to some	
		extent and	extent and	
		that a	that a	
1				



	an e that yet test that test	: been ted, but it can be ted through	hypothesis is an explanation that has not yet been tested, but that can be tested through a scientific	
	test			
		quiry	enquiry	