



# Supporting the National Curriculum 2014 with Purple Mash

Science

Each year group contains examples of how the creative tools can be effectively used to support National Curriculum 2014. Looking at examples from year groups above and below may provide additional ideas.

Year 1PlantsAnimals, including humansEveryday materialsSeasonal changesYear 2Living things and their habitatsPlantsAnimals, including humansUses of everyday materialsYear 3	Year 4Living things and their habitatsAnimals, including humansStates of matterSoundElectricityYear 5Living things and their habitatsAnimals, including humansProperties and changes of materialsEarth and spaceForces
Plants Animals, including humans Rocks Light Forces and Magnets	Year 6 Living things and their habitats Animals, including humans Evolution and inheritance Light Electricity

PLANTS	PLANTS			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Ideas, links to Planning & Resources	
IDENTIFY AND NAME A     VARIETY OF COMMON WILD     AND GARDEN PLANTS,     NOLUDING DEGIDINOUS,	Identifying Plants and Animals in The Local Area (Writing Activity)	http://www.purplemash.c om/#pup/plantsandanima ls	Guides and help with <b>2Count</b> and <b>2Question</b> . <u>https://www.purplemash.com/#ta</u> <u>b/teachers/guides_and_resources</u>	
<ul> <li>INCLUDING DECIDUOUS AND EVERGREEN TREES</li> <li>IDENTIFY AND DESCRIBE THE BASIC STRUCTURE OF A</li> </ul>	To Identify and Name A Variety of Common Plants (Labelling Activity 2DIY)	http://www.purplemash.c om/site#games/2diy/flow erlabelling	Printable resources and activities on plants suitable for KS1 <u>https://www.purplemash.com/#ta</u> b/teachers/printable resources/sci	
VARIETY OF COMMON FLOWERING PLANTS, INCLUDING TREES.	To Identify and Name A Variety of Common Leaves (Labelling Activity 2DIY)	http://www.purplemash.c om/site#game/2diy/leafla belling	ence resources/printable resourc es science plants Take the children on a walk around	
	Sort into Plants and Animals (Sorting Activity 2DIY)	http://www.purplemash.c om/site#game/2diy/plants vanimals	the school and count the frequence of trees in the area. Record the results on a pictogram using <b>2Count</b> . <u>https://www.purplemash.com/#ap</u> p/tools/2count	
	com/#	https://www.purplemash. com/#app/games/2diy/Pla nts_Labelling	Create a branching database using <b>2Question</b> . Children use this database to identify the names of	
	Record finding of plants in the local area using the Gardener Mash Cam	https://www.purplemash. com/#app/mashcam/gard ener_cam	common plants and trees. <u>https://www.purplemash.com/#ap</u> <u>p/tools/2question</u>	
	My Garden (Paint Project)	https://www.purplemash. com/#app/pap/home/gar den	<u></u>	



National Curriculum Statement	Purple Mash Resource	Direct link to resource	Ideas, links to Planning & Resources
IDENTIFY AND NAME A VARIETY OF COMMON ANIMALS INCLUDING FISH, AMPHIBIANS, REPTILES, BIRDS AND MAMMAL IDENTIFY AND NAME A VARIETY OF COMMON ANIMALS THAT ARE CARNIVORES, HERBIVORES AND	To Observe Differences Between Plants and Animals to Group Them (Sorting Activity <b>2Diy</b> ) To Identify and Name A Variety of Common Animals That Are Birds (Labelling Activity <b>2Diy</b> ) Pet Captions (Writing Activity <b>2Publish</b> )	http://www.purplemash.c om/site#game/2diy/plants vanimals https://www.purplemash. com/#app/games/2diy/bir ds_labeling http://www.purplemash.c om/#pup/petcaptions	2Diy and 2Quiz resources, guides and help videos. https://www.purplemash.com/#ta b/teachers/guides and resources, 2diy 2quiz resources Create a pairs game in 2Diy where the children match the name of the
OMNIVORES DESCRIBE AND COMPARE THE STRUCTURE OF A VARIETY OF COMMON ANIMALS (FISH, AMPHIBIANS, REPTILES, BIRDS	Simple City - The Vet Simple City – The Zoo	http://www.purplemash.c om/#games/simplecitydes t/vets http://www.purplemash.c om/#games/simplecitydes t/zoo	https://www.purplemash.com/#app/tools/2diy/Pairs
AND MAMMALS, INCLUDING PETS)	2start English (Premium Product) – Animals	http://www.purplemash.c om/#premium/2se	where the children must decide if an animal is a carnivore, herbivore or omnivore and drag the picture
IDENTIFY, NAME, DRAW AND LABEL THE BAISC PARTS OF THE HUMAN BODY AND SAY WHICH	To Identify and Name A Variety of Common Animals That Are Carnivores (Grouping Activity <b>2Diy</b> )	http://www.purplemash.c om/site#games/2diy/anim al_grouping	of the animal to the correct category.
PART OF THE BODY IS ASSOCIATED WITH EACH SENSE.	Carnivores (Labelling Activity <b>2Diy</b> )	http://www.purplemash.c om/site#games/2diy/Carni vore Labelling	https://www.purplemash.com/#ap p/divis/2quizg



Carnivore Quiz ( <b>2Diy</b> )	http://www.purplemash.c	
	om/site#games/2diy/carni	
	<u>vore_quiz</u>	
Dog - Leaflet (Writing Activity	http://www.purplemash.c	
2Publish)	om/#leaflets/dogs	
Safari Animals (Writing Activity	http://www.purplemash.c	
2Publish)	om/#pup/safarianimals	
Dangerous Animals (Writing Activity	http://www.purplemash.c	
2Publish)	om/#pup/Vocabularydang	
	eranimals	
Describing Lambs (Writing Activity	http://www.purplemash.c	
2Publish)	om/#pup/lambs1	
· ·		
Describe A Lion (Writing Activity	http://www.purplemash.c	
2Publish)	om/#pup/lion	
All About Cats (Writing Activity	http://www.purplemash.c	
2Publish)	om/#pup/animals_allabou	
	tcats	
All About Dogs (Writing Activity	http://www.purplemash.c	
2Publish)	om/#pup/animals_allabou	
	<u>tdogs</u>	
Goldfish – Paint Project ( <b>2Paint</b> )	http://www.purplemash.c	
	om/#pap/animals/fishbow	
	<u>1</u>	
Bird – Paint Project ( <b>2Paint</b> )	http://www.purplemash.c	
	om/#pap/animals/bird	
	https://www.sectorest	
Human Body – Labelling Game ( <b>2Diy</b> )	https://www.purplemash.	
	com/#app/game/2diy/hu	
	manbody labelling	
Human Senses -2Quiz Game ( <b>2Quiz</b> )	https://www.purplemash.	
	<pre>com/#app/games/2diy/Hu</pre>	
	man senses	



EVERYDAY MATERIALS	EVERYDAY MATERIALS			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Ideas, links to Planning & Resources	
DISTINGUISH BETWEEN AN OBJECT AND THE MATERIAL FROM WHICH IT IS MADE	Matching Objects to Their Material	http://www.purplemash.co m/site#game/2diy/matchin gobjects	<b>2Diy</b> and <b>2Quiz</b> resources, guides and help videos.	
IDENTIFY AND NAME A VARIETY OF EVERYDAY MATERIALS, INCLUDING WOOD, PLASTIC,	Properties of Materials (Writing Activity <b>2Publish</b> ) To Describe the Simple Physical Properties of a Variety of Everyday Materials <b>(2Diy</b> )	http://www.purplemash.co m/#pup/materialproperties http://www.purplemash.co m/site#game/2diy/matchin gobjects	https://www.purplemash.com/#t ab/teachers/guides and resourc es/2diy 2quiz resources	
GLASS, METAL, WATER, AND ROCK DESCRIBE THE SIMPLE PHYSICAL PROPERTIES OF A VARIETY OF	3 Little Pigs Painting Activity – ( <b>2Paint</b> )	http://www.purplemash.co m/#pap/fairy_stories/3_pig s	Draw the story and write a sentence about why bricks are best for a house.	
EVERYDAY MATERIALS	The 3 Little Pigs story board. (Writing Activity <b>2Publish</b> )	https://www.purplemash.c om/#app/pup/threelittlepig s_story	Ask the children to explain why straw and sticks were not suitable for making houses.	
A VARIETY OF EVERYDAY MATERIALS ON THE BASIS OF THEIR SIMPLE PHYSICAL PROPERTIES.	Construction Worker – Mashcam	https://www.purplemash.c om/#tab/pm- home/tools/purplemashca ms	Using the Mash Cams children can put themselves in the role of various characters to describe and explain why certain materials are good for making homes. <u>https://www.purplemash.com/#t</u> <u>ab/pm-</u> <u>home/tools/purplemashcams</u>	
	Compare Different Materials ( <b>2Diy</b> )	http://www.purplemash.co m/site#game/2diy/matchin gobjects	Children can use the grouping question in <b>2Quiz</b> to create a quiz where others must sort the materials. <u>https://www.purplemash.com/#a</u> <u>pp/divis/2quizg</u>	



SEASONAL CHANGES			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Ideas, links to Planning & Resources
OBSERVE CHANGES ACROSS THE FOUR SEASONS	Seasons Quiz – <b>2Quiz</b> activity	https://www.purplemash.c om/#app/games/2diy/Seas ons_Quiz	Printable resource on seasons suitable for KS1. <u>https://www.purplemash.com/#a</u>
OBSERVE AND DESCRIBE WEATHER ASSOCIATED WITH	Autumn – Paint Project ( <b>2Paint</b> )	http://www.purplemash.co m/#pap/nature/autumn	pp/lessonplans/info/printables s cience seasons
THE SEASONS AND HOW DAY	Winter – Paint Project ( <b>2Paint</b> )	http://www.purplemash.co m/#pap/nature/winter	Use <b>2Count</b> to record changes in the length of day between Jack
LENGTH VARIES.	Spring – Paint Project ( <b>2Paint</b> )	http://www.purplemash.co m/#pap/nature/spring	seasons.
	Summer – Paint Project ( <b>2Paint</b> )	http://www.purplemash.co m/#pap/nature/summer	https://www.purplemash.com/#a pp/tools/2count
	Order the Photos Next to The Correct Season ( <b>2Diy</b> )	http://www.purplemash.co m/site#games/2diy/order_s easons	<b>2Count</b> Teachers Guide <u>https://www.purplemash.com/#a</u>
	Create A Fact Sheet About Seasons (Writing project – <b>2Publish</b> )	http://www.purplemash.co m/#leaflets/seasons_leaflet 01	pp/guides/2Count Guide Children use <b>2Animate</b> to create
	Weather – Paint Project ( <b>2Paint</b> )	http://www.purplemash.co	an animation demonstrating changes in the seasons.
	How Do the Seasons Affect Animals? (Writing project - <b>2Publish</b> )	<u>m/#pap/nature/weather</u> <u>http://www.purplemash.co</u> <u>m/site#pup/Animals_and_s</u> <u>easons</u>	https://www.purplemash.com/#a pp/tools/2ani



L	LIVING THINGS AND THEIR HABITATS				
N	ational Curriculum Statement	Purple Mash Resource	Direct link to resource	Ideas, links to Planning & Resources	
•	EXPLORE AND COMPARE THE DIFFERENCES BETWEEN THINGS THAT ARE LIVING, DEAD, AND THINGS THAT HAVE NEVER BEEN ALIVE	Sorting Living, Non-Living and Dead ( <b>2Diy</b> )	https://www.purplemash.c om/#app/games/2diy/living notliving	<b>2Quiz</b> Sort objects out into whether         they are living, dead or have         never been alive.         https://www.purplemash.com/#a         pp/divjs/2quizg	
•	IDENTIFY THAT MOST LIVING THINGS LIVE IN HABITATS TO WHICH THEY ARE SUITED	Adaption to A Temperate Climate (Publishing project – <b>2Publish</b> ) Adaption to An Ocean Climate (Publishing project – <b>2Publish</b> )	http://www.purplemash.co m/#pup/adaptation_tempe rate http://www.purplemash.co m/#pup/adaptation_ocean		
	AND DESCRIBE HOW DIFFERENT HABITATS	Adaption to A Tundra Climate (Publishing project – <b>2Publish</b> )	http://www.purplemash.co m/#pup/adaptation_tundra	<b>2Diy</b> and <b>2Quiz</b> resources, guides and help videos.	
	PROVIDE FOR THE BASIC NEEDS OF DIFFERENT KINDS	Adaption to A Desert Climate (Publishing project – <b>2Publish</b> )	http://www.purplemash.co m/#pup/adaptation_desert	https://www.purplemash.com/#t ab/teachers/guides and resourc	
	OF ANIMALS AND PLANTS, AND HOW THEY DEPEND ON	Adaption to A Tropical Climate (Publishing project – <b>2Publish</b> )	http://www.purplemash.co m/#postcards/tropical	es/2diy 2quiz resources	
•	EACH OTHER	Identify Common Animals Which Are Birds ( <b>2Diy)</b>	http://www.purplemash.co m/site#games/2diy/birds_la belling	<b>2Investigate</b> Resources https://www.purplemash.com/#t	
	VARIETY OF PLANTS AND ANIMALS IN THEIR	Polar Explorer Game ( <b>2Diy</b> )	http://www.purplemash.co m/#games/2diy/Polar_Pairs	ab/teachers/guides and resourc es/2inv resourses	
		Mammals and Reptiles (2Diy)	http://www.purplemash.co m/site#games/2diy/Mamm als_Reptiles		

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•	HABITATS, INCLUDING MICRO-HABITATS DESCRIBE HOW ANIMALS OBTAIN THEIR FOOD FROM	Adaption to A Tundra Climate ( <b>Publishing project – 2Publish</b> ) Identifying Habitats (Publishing project – <b>2Publish</b> )	http://www.purplemash.co m/#pup/adaptation_tundra http://www.purplemash.co m/#pup/habitats2	
	PLANTS AND OTHER ANIMALS, USING THE IDEA OF A SIMPLE FOOD CHAIN, AND IDENTIFY AND NAME	Food Chains (Publishing project - <b>2Publish</b> ) Food Chains – (Whole Class Quiz – <b>2Quiz</b> )	http://www.purplemash.co m/#pup/habitats https://www.purplemash.c om/app/game/2diy/Food_c	Printable resource on Food Chains <u>https://www.purplemash.com/#a</u> <u>pp/lessonplans/info/printables_s</u> <u>cience_food_chains</u>
	DIFFERENT SOURCES OF FOOD	Minibeasts Database – ( <b>2Investigate</b> )	hains https://www.purplemash.c	Use <b>2Investigate</b> and open the
			om/#app/tools/2inv	minibeasts document. Children sort animals by habitat.



National Curriculum Statement	Purple Mash Resource	Direct link to resource	Ideas, links to Planning & Resources
<ul> <li>OBSERVE AND DESCRIBE HOW SEEDS AND BULBS GROW INTO MATURE PLANTS</li> <li>FIND OUT AND DESCRIBE HOW PLANTS NEED WATER, LIGHT AND A SUITABLE TEMPERATURE TO GROW AND STAY HEALTHY.</li> </ul>	Seed Dispersal (Publishing project - <b>2Publish</b> ) Plant Diary (Publishing project - <b>2Publish</b> ) All About Germination (Publishing project - <b>2Publish</b> ) Growing Plants (Publishing project - <b>2Publish</b> ) Use <b>2Animate</b> To Animate How A Plant Grows Plants Labelling – Growing ( <b>2DIY</b> )	http://www.purplemash.co         m/#pup/dispersal         http://www.purplemash.co         m/#pup/plants2         http://www.purplemash.co         m/#pup/germination         http://www.purplemash.co         m/#pup/plants         http://www.purplemash.co         m/#pup/plants         http://www.purplemash.co         m/#pup/plants         http://www.purplemash.co         m/#tools/2ani         https://www.purplemash.co         m/#tools/2ani         https://plantsl         abelling	<b>ZAnimate</b> guide for teachers         https://www.purplemash.com/#         app/lessonplans/info/2Animate         Guide
	Gardener – Mashcam	https://www.purplemash.co m/#app/mashcam/gardener cam	Children take the role of a gardener and describe what a seed needs to grow into a healthy plant.
	Growing and Keeping Healthy – <b>Printable</b> resource activity	https://www.purplemash.co m/#app/lessonplans/info/pri ntables science healthyplan ts	Printable resource on Plants suitable for KS1. <u>https://www.purplemash.com/#</u> <u>tab/pm-</u> <u>home/science/science_resources</u> <u>/printable_resources_science_pl</u> <u>ants</u>



National Curriculum Statement	Purple Mash Resource	Direct link to resource	Ideas, links to Planning & Resources
NOTICE THAT ANIMALS, INCLUDING HUMANS, HAVE	Adult and Baby Animals (Publishing project - <b>2Publish</b> )	http://www.purplemash.co m/#pup/adultandbabyanim als	Pars
OFFSPRING WHICH GROW INTO ADULTS • FIND OUT ABOUT AND	Adult and Baby Animals Matching Cards - <b>Printable</b> resource activity	https://www.purplemash.co m/site#app/lessonplans/inf o/printables_science_adult	Create a pairs game in <b>2Diy</b> where the children match the baby animal to the adult animal.
DESCRIBE THE BASIC NEEDS OF ANIMALS, INCLUDING HUMANS, FOR SURVIVAL	Butterfly Life Cycle (Publishing project - <b>2Publish</b> )	baby animals https://www.purplemash.co m/#app/leaflets/butterfly_li fe_cycle_leaflet	https://www.purplemash.com/# app/tools/2diy/Pairs
<ul><li>(WATER, FOOD AND AIR</li><li>DESCRIBE THE IMPORTANCE</li></ul>	Butterfly Life Cycle – <b>Printable</b> resource activity	https://www.purplemash.co m/#app/lessonplans/info/pr intables science lifecyclebu tterfly	Create a series of pictures in <b>2Quiz</b> showing a baby growing in stages from baby to adulthood
FOR HUMANS OF EXERCISE, EATING THE RIGHT AMOUNTS OF DIFFERENT TYPES OF FOOD, AND	Growing and Changing (Publishing project - <b>2Publish</b> )	http://www.purplemash.co m/#pup/growingandchangi ng	and then put the images in order. <u>https://www.purplemash.com/#</u> <u>app/tools/2diy/Sequencing</u>
HYGIENE.	Growing and Changing – Matching stages to descriptions - <b>Printable</b> resource activity	https://www.purplemash.co m/site#app/lessonplans/inf o/printables science growi ng changing	
	Plan A Meal (Publishing project - <b>2Publish</b> )	http://www.purplemash.co m/#pup/planameal	
	Healthy Eating (Publishing project - <b>2Publish</b> )	http://www.purplemash.co m/#pup/healthy	
	Favourite Fruit (Publishing project - <b>2Publish</b> )	http://www.purplemash.co m/#pup/favfruit	
	Create A Lunch Menu (Publishing project - <b>2Publish</b> )	http://www.purplemash.co m/#leaflets/lunchmenu	

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5 A Day Leaflet (Publishing project - <b>2Publish</b> )	http://www.purplemash.co m/#leaflets/five_a_day	
Find Out About the Basic Needs of Animals (Publishing project - <b>2Publish</b> )	http://www.purplemash.co m/site#pup/animalneeds	
What Happens During Exercise (Publishing project - <b>2Publish</b> )	http://www.purplemash.co m/#pup/hb exercise what happens	Printable resources on Health and Growth <u>https://www.purplemash.com/sit</u> <u>e#tab/pm-</u>
Exercise Poster (Publishing project - <b>2Publish</b> )	http://www.purplemash.co m/#pup/hb exercise poste r	home/science/health and growt h/printable resources science h ealth and growth

#### USES OF EVERYDAY MATERIALS

National Curriculum Statement	Purple Mash Resource	Direct link to resource	Ideas, links to Planning & Resources
IDENTIFY AND COMPARE THE     SUITABILITY OF A VARIETY OF     EVERYDAY MATERIALS	Properties of Materials (Publishing project - <b>2Publish</b> )	http://www.purplemash.co m/#pup/materialproperties	
<ul> <li>FIND OUT HOW THE SHAPES OF SOLID OBJECTS MADE FROM SOME MATERIALS CAN BE CHANGED BY SQUASHING</li> </ul>	Describe What Happens to The Objects When You Apply A Force (Publishing project - <b>2Publish</b> )	http://www.purplemash.co m/site#pup/applyingforces	Create a quiz asking the children which material would be most suited to perform a given task <u>https://www.purplemash.com/#</u> <u>app/divjs/2quiz</u>
	Construction worker Mashcam	https://www.purplemash.co m/site#app/mashcam/const ruction worker cam	Ask the children to consider the construction of various items such as a new school fish tank. What materials are suitable and why?



PLANTS			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Ideas, links to Planning & Resources
• IDENTIFY AND DESCRIBE THE FUNCTIONS OF DIFFERENT PARTS OF FLOWERING PLANTS: ROOTS, STEM/TRUNK, LEAVES	Labelling A Flower – <b>2Quiz</b> Label Different Types of Flowers –	https://www.purplemash.co m/site#app/games/2diy/Plan ts_Labelling http://www.purplemash.com	Printable resources on Plants https://www.purplemash.com/s ite#tab/pm- home/science/plants/printable resources science plants
<ul> <li>AND FLOWERS</li> <li>EXPLORE THE REQUIREMENTS OF PLANTS FOR LIFE AND</li> </ul>	<b>2Diy</b> Plant Diary - (Publishing project -	/site#games/2diy/flowerlabel ling http://www.purplemash.com	Using <b>2Graph</b> , Measure the growth of a plant over a period and record the results on a line
GROWTH (AIR, LIGHT, WATER, NUTRIENTS FROM SOIL, AND ROOM TO GROW) AND HOW	2Publish) Growing Plants - (Publishing project -	/#pup/plants2 http://www.purplemash.com	graph. <u>https://www.purplemash.com/</u> #app/jsapps/graph
THEY VARY FROM PLANT TO PLANT • INVESTIGATE THE WAY IN	2Publish)	/#pup/plants	Using <b>2Connect</b> , design an experiment to investigate where
WHICH WATER IS TRANSPORTED WITHIN PLANTS	To Investigate the Way in Which Water Is Transported Within Plants <b>2Diy</b>	http://www.purplemash.com /site#games/2diy/transpirati on	a plant grows best. <u>https://www.purplemash.com/</u> <u>#app/tools/2Connect</u>
• EXPLORE THE PART THAT FLOWERS PLAY IN THE LIFE CYCLE OF FLOWERING PLANTS,	Seed Dispersal - (Publishing project - <b>2Publish</b>	http://www.purplemash.com /#pup/dispersal	Using <b>2Animate</b> , create an animation to show how a plant
INCLUDING POLLINATION,	All About Germination - (Publishing project - <b>2Publish</b> )	http://www.purplemash.com /#pup/germination	grows or the life cycle of a plant.



SEED FORMATION AND SEED	Labelling A Flower – <b>2Diy</b>	http://www.purplemash.com	https://www.purplemash.com/
DISPERSAL		<pre>/site#games/2diy/life cycle</pre>	<u>#app/tools/animate</u>
		<u>of a plant</u>	Using the Mashcams, children
			get in role as a farmer. What
			would they need to consider if
			they wanted to grow as many
			potatoes as they could in a
			certain size field. What
			requirements for growth could
			be affected?
			Mashcams
			https://www.purplemash.com/
			<u>#app/mashcam/farmer_cam</u>

National Curriculum Statement	Purple Mash Resource	Direct link to resource	Ideas, links to Planning &
			Resources
• IDENTIFY THAT ANIMALS,	Healthy Eating - (Publishing project -	http://www.purplemash.com/#	Printable resources on Food
INCLUDING HUMANS, NEED	2Publish)	pup/healthy	https://www.purplemash.com
THE RIGHT TYPES AND			<u>/#tab/pm-</u>
			home/science/food/printable
AMOUNT OF NUTRITION,	Food Groups- (Publishing project -	http://www.purplemash.com/#	resources science food
AND THAT THEY CANNOT	2Publish)	pup/foodgroups	
MAKE THEIR OWN FOOD;			Printable resources on Health
THEY GET NUTRITION FROM	Food Groups – <b>2Quiz</b>	https://www.purplemash.com/	https://www.purplemash.com
		<pre>#app/games/2diy/Food Group</pre>	/#tab/pm-
WHAT THEY EAT		<u>s</u>	home/science/health and gr
IDENTIFY THAT HUMANS AND	5 A Day Leaflet - (Publishing project -	http://www.purplemash.com/#	owth/printable resources sci
SOME OTHER ANIMALS HAVE	2Publish)	leaflets/five a day	ence health and growth



SKELETONS AND MUSCLES	All About Skeletons- (Publishing	http://www.purplemash.com/#	Using <b>2Diy3D</b> Create a game
FOR SUPPORT, PROTECTION	project - <b>2Publish</b> )	pup/hb_skeleton_allabout	where the player must collect
AND MOVEMENT			healthy foods and ignore the
			unhealthy foods.
	Describing Joints-(Publishing project -	http://www.purplemash.com/#	2Do It Yourself 3D
	2Publish)	pup/hb describing joints	https://www.purplemash.com
	Muscles-(Publishing project -2Publish)	http://www.purplemash.com/#	/#app/games/2DIY3D
		pup/hb_muscles	Use <b>2Quiz</b> sorting question
	Plan A Healthy Meal – Printable	https://www.purplemash.com/	type and ask the children to
		#app/lessonplans/info/printabl	sort food into essential and
		es science healthy foods	not essential for a healthy
			diet.
			https://www.purplemash.com
			/#app/diyis/2quiz
			Using <b>2Respond</b> creator, send
			the children an email from a
			nutritionist and ask the
			children to email back a
			healthy meal.
			https://www.purplemash.com
			/#tab/pm-home/tools/2email



ROCKS			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Ideas, links to Planning & Resources
COMPARE AND GROUP     TOGETHER DIFFERENT KINDS	Types of rock -(Publishing project - <b>2Publish</b> )	http://www.purplemash.com/si te#pup/Types of Rock	Using <b>2Animate</b> , create a simple animation to show
OF ROCKS ON THE BASIS OF THEIR APPEARANCE AND	All About Fossils -(Publishing project - <b>2Publish</b> )	https://www.purplemash.com/ site#app/pup/fossils_factfile	how fossils are formed. <a href="https://www.purplemash.co">https://www.purplemash.co</a>
SIMPLE PHYSICAL PROPERTIES	Fossil Leaflet - (Publishing project - <b>2Publish</b> )	https://www.purplemash.com/ site#app/leaflets/fossils_leaflet	m/#app/tools/animate
DESCRIBE IN SIMPLE TERMS     HOW FOSSILS ARE FORMED     WHEN THINGS THAT HAVE	Fossil Quiz – <b>2Quiz</b>	https://www.purplemash.com/ site#app/game/2diy/Fossilisatio n order Quiz	Using <b>2Question</b> , create a branching database to help sort various rocks according to their appearance and
LIVED ARE TRAPPED WITHIN ROCK	The Stages of Fossilisation - (Publishing project - <b>2Publish</b> )	https://www.purplemash.com/ site#app/pup/The stages of fo ssilisation	simple physical properties. https://www.purplemash.co m/#app/tools/2question
RECOGNISE THAT SOILS ARE     MADE FROM ROCKS AND	All About Dinosaurs -(Publishing project - <b>2Publish</b> )	http://www.purplemash.com/# pup/dinosaurs_allabout	Research the life of Mary
ORGANIC MATTER.	Dinosaur Captions -(Publishing project - <b>2Publish</b> )	http://www.purplemash.com/# pup/dinosaurs_captions	Anning and write your findings in the fact file.
	Comparing Dinosaurs -(Publishing project - <b>2Publish</b> )	http://www.purplemash.com/# pup/dinosaurs_comparing	https://www.purplemash.co m/#app/pup /Mary_Anning_allabout
	Describing Dinosaurs -(Publishing project - <b>2Publish</b> )	http://www.purplemash.com/# pup/dinosaurs_describing	Printable resources on Rocks
	Dinosaur News - (Publishing project - <b>2Publish</b> )	http://www.purplemash.com/# pup/dinosaurs_news	https://www.purplemash.co m/site#tab/pm- home/science/rocks and soil
	Types of Soil – <b>2Diy</b>	http://www.purplemash.com/si te#game/2diy/soil	/printable resources science rocks and soil



LIGHT			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Ideas, links to Planning & Resources
<ul> <li>RECOGNISE THAT THEY NEED LIGHT IN ORDER TO SEE THINGS AND THAT DARK IS THE ABSENCE OF LIGHT</li> <li>NOTICE THAT LIGHT IS</li> </ul>	Sources of Light-(Publishing project - <b>2Publish</b> )	http://www.purplemash.com/# pup/lightorreflector	Printable resources on Sources of light <u>https://www.purplemash.co</u> <u>m/site#app/lessonplans/info</u> <u>/printables_science_sources</u> of_light
<ul> <li>NOTICE THAT LIGHT IS REFLECTED FROM SURFACES</li> <li>RECOGNISE THAT LIGHT FROM THE SUN CAN BE DANGEROUS AND THAT THERE ARE WAYS TO PROTECT THEIR EYES</li> </ul>	Reflective and Absorbent-(Publishing project - <b>2Publish</b> )	http://www.purplemash.com/si te#pup/lightreflectabsorb	Use the grouping question in <b>2Quiz</b> and sort clothes into those that will reflect light and those that will not. <u>https://www.purplemash.co</u> <u>m/#app/divjs/2quiz</u>
<ul> <li>RECOGNISE THAT SHADOWS ARE FORMED WHEN THE LIGHT FROM A LIGHT SOURCE IS BLOCKED BY A SOLID OBJECT</li> <li>FIND PATTERNS IN THE WAY</li> </ul>	All About the Sun and It's Dangers- (Publishing project - <b>2Publish</b> )	http://www.purplemash.com/si te#pup/Dangers of the Sun	Printable resources on Sun Safety <u>https://www.purplemash.co</u> <u>m/site#app/lessonplans/info</u> /printables science sun safe ty
THAT THE SIZE OF SHADOWS CHANGE.	Shadows – <b>Printable</b>	https://www.purplemash.com/s ite#app/lessonplans/info/printa bles science shadows	Using <b>2Graph</b> , investigate how changing the distance of a light source from an object affects shadow size. Record results using 2graph and make interpretation from the data.



Sundial – Printable	https://www.purplemash.com/s	Children create their own
	ite#app/lessonplans/info/printa	sundial and record where the
	bles science sundial	shadow is formed at set
		intervals throughout a day.

National Curriculum Statement	Purple Mash Resource	Direct link to resource	Ideas, links to Planning & Resources
<ul> <li>COMPARE HOW THINGS MOVE ON DIFFERENT SURFACES</li> <li>NOTICE THAT SOME FORCES NEED CONTACT BETWEEN TWO OBJECTS, BUT MAGNETIC FORCES CAN ACT AT A DISTANCE</li> </ul>	Forces in Action 1-(Publishing project -2Publish) Forces in Action 2-(Publishing project -2Publish) Forces in Action 3-(Publishing project -2Publish)	http://www.purplemash.com/# pup/forces http://www.purplemash.com/# pup/forces2 http://www.purplemash.com/# pup/forces3	Children could create a ramp and cover with different surfaces. Measure the distance a car rolls down each surface and record using <b>2Graph.</b> <u>https://www.purplemash.co</u> <u>m/#app/jsapps/graph</u>
<ul> <li>OBSERVE HOW MAGNETS ATTRACT OR REPEL EACH OTHER AND ATTRACT SOME MATERIALS AND NOT OTHERS</li> <li>COMPARE AND GROUP</li> </ul>	Magnets-(Publishing project - <b>2Publish</b> ) Are They Magnetic-(Publishing project - <b>2Publish</b> )	http://www.purplemash.com/# pup/magnets http://www.purplemash.com/# pup/are_they_magnetic	Within <b>2Quiz</b> , use the sorting question and sort materials into those that are magnetic and those that are not.
TOGETHER A VARIETY OF EVERYDAY MATERIALS ON THE	Magnets investigation – Printable	https://www.purplemash.com/s ite#app/lessonplans/info/printa bles science forces magnets	https://www.purplemasn.co m/#app/diyjs/2quiz



BASIS OF WHETHER THEY ARE	Using <b>2Investigate</b> , children
ATTRACTED TO A MAGNET,	carry out an investigation as
AND IDENTIFY SOME	to what materials stop a
MAGNETIC MATERIALS	magnet from being attracted
DESCRIBE MAGNETS AS	to a paperclip and record
HAVING TWO POLES	their results in 2 investigate,
	making scientific reasoning as
PREDICT WHETHER TWO	to why.
MAGNETS WILL ATTRACT OR	
REPEL EACH OTHER,	https://www.purplemash.co
DEPENDING ON WHICH POLES	<u>m/#app/tools/2inv</u>
ARE FACING.	



LIVING THINGS AND THEIR HABITATS			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Ideas, links to Planning & Resources
RECOGNISE THAT LIVING     THINGS CAN BE GROUPED IN A	All About Birds -(Publishing project - <b>2Publish</b> )	http://www.purplemash.com/# pup/birds	Using <b>2Publish plus</b> , select an animal from somewhere else
VARIETY OF WAYS.	All About Fish -(Publishing project - <b>2Publish</b> )	http://www.purplemash.com/# pup/fish	in the world except from where they live and write about how it has been
EXPLORE AND USE     CLASSIFICATION KEYS TO HELP	All About Amphibians -(Publishing project - <b>2Publish</b> )	http://www.purplemash.com/# pup/amphibians	adapted to live in that environment.
GROUP, IDENTIFY AND NAME A VARIETY OF LIVING THINGS	All About Reptiles -(Publishing project - <b>2Publish</b> )	http://www.purplemash.com/# pup/reptiles	https://www.purplemash.co m/#tab/pm-
IN THEIR LOCAL AND WIDER ENVIRONMENT.	All About Mammals -(Publishing project - <b>2Publish</b> )	http://www.purplemash.com/# pup/mammals	home/tools/2 publish plus
RECOGNISE THAT	All About Nocturnal Animals - (Publishing project - <b>2Publish</b> )	http://www.purplemash.com/# pup/animals_nocturnalallabout	Using 2Quiz, create a sorting question (Carroll diagram)
ENVIRONMENTS CAN CHANGE AND THAT THIS CAN	Sorting into Mammals and Reptiles ( <b>2Diy</b> )	http://www.purplemash.com/si te#games/2diy/Mammals Repti les	and ask the children to sort animals into two groups e.g. amphibians and reptiles.
SOMETIMES POSE DANGERS TO LIVING THINGS.	Sorting into Vertebrates and Invertebrates ( <b>2Diy</b> )	http://www.purplemash.com/si te#games/2diy/vertsandinverts	https://www.purplemash.co
	Adapt the Pets Database to Include More Information About the Animals. For Example, Nocturnal, Carnivore	http://www.purplemash.com/# 2inv/pets	<u>m/#app/divis/2quiz</u> Create a branching database,
	Oil Slick News - (Publishing project - 2Publish)	http://www.purplemash.com/# pup/oilnews	using <b>2Question</b> , and sort animals using classification keys.
	Habitats – Grouping Organisms Printable.	https://www.purplemash.com/ #app/lessonplans/info/printable s_science_habitats	https://www.purplemash.co m/#app/tools/2question



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A	ANIMALS, INCLUDING HUMANS				
N	lational Curriculum Statement	Purple Mash Resource	Direct link to resource	Ideas, links to Planning & Resources	
•	DESCRIBE THE SIMPLE FUNCTIONS OF THE BASIC PARTS OF THE DIGESTIVE	Label the Digestive System ( <b>2Diy</b> )	http://www.purplemash.com/si te#games/2diy/digestive_syste m	Use the sorting question in <b>2Quiz</b> to highlight food that is damaging to teeth and food which isn't.	
•	SYSTEM IN HUMANS IDENTIFY THE DIFFERENT TYPES OF TEETH IN HUMANS AND	Digestion - <b>Printable</b>	https://www.purplemash.com/ #app/lessonplans/info/printable s science digestion	https://www.purplemash.co	
	THEIR SIMPLE FUNCTIONS	Healthy Teeth Leaflet -(Publishing project - <b>2Publish</b> )	http://www.purplemash.com/#l eaflets/healthyteeth	m/#app/diyjs/2quiz	
•	CONSTRUCT AND INTERPRET A VARIETY OF FOOD CHAINS, IDENTIFYING PRODUCERS,	Healthy Teeth - (Publishing project - <b>2Publish</b> )	http://www.purplemash.com/# pup/teeth	Use the labelling question in <b>2Quiz</b> and take or draw a	
	PREDATORS AND PREY.	Human Teeth – <b>Printable</b>	https://www.purplemash.com/ #app/lessonplans/info/printable s science human teeth	picture of the digestive system and label accordingly.	
		Human Teeth Quiz – ( <b>2Quiz</b> )	https://www.purplemash.com/ #app/games/2diy/Human_teeth		
		Identifying my own teeth – <b>Printable</b>	https://www.purplemash.com/ #app/lessonplans/info/printable s science my teeth	https://www.purplemash.co m/#app/diyjs/2quiz	
		Food Chain -(Publishing project - <b>2Publish</b> )	http://www.purplemash.com/# pup/habitats	Plan a fair experiment for testing the effects of sugary drinks on egg shell coating	
		Food Chain Quiz ( <b>2Quiz</b> )	https://www.purplemash.com/ #app/game/2diy/Food_chains	using the Fair Test pup.	
		Food Chain – <b>Printable</b>	https://www.purplemash.com/ #app/lessonplans/info/printable s science food chains	https://www.purplemash.co m/#app/pup/fair_test	



STATES OF MATTER				
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Ideas, links to Planning & Resources	
COMPARE AND GROUP MATERIALS TOGETHER, ACCORDING TO WHETHER THEY ARE SOLIDS, LIQUIDS OR GASES	Solids, Liquids and Gases -(Publishing project - <b>2Publish</b> ) Reversible and Irreversible Changes - (Publishing project - <b>2Publish</b> ) Water Cycle -(Publishing project -	http://www.purplemash.com/#pup/solidsliquidsgaseshttp://www.purplemash.com/#pup/reversechangehttp://www.purplemash.com/site	Use the experiment planner in <b>2Connect</b> to plan out an experiment to test what happens to materials when they are heated or cooled.	
OBSERVE THAT SOME     MATERIALS CHANGE STATE	2Publish)	#pup/watercycle	https://www.purplemash.c	
WHEN THEY ARE HEATED OR COOLED, AND MEASURE OR RESEARCH THE TEMPERATURE	Water Cycle Developing Tray activity	https://www.purplemash.com/#a pp/devtray/The water cycle dev tray	om/#app/tools/2Connect Using the grouping option	
AT WHICH THIS HAPPENS IN DEGREES CELSIUS (°C)	Water Cycle	https://www.purplemash.com/ap p/folder/water_cycle	within <b>2Quiz</b> , sort materials out into three categories – solid, liquid and gas.	
• IDENTIFY THE PART PLAYED BY EVAPORATION AND CONDENSATION IN THE WATER CYCLE AND ASSOCIATE THE RATE OF EVAPORATION WITH TEMPERATURE.	Fair Test -(Publishing project - <b>2Publish</b> )	https://www.purplemash.com/#a pp/pup/fair_test	<u>https://www.purplemash.c</u> om/#app/diyjs/2quizg	





SOUND			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Ideas, links to Planning &
			Resources
IDENTIFY HOW SOUNDS ARE	How Different Sounds Are Produced	http://www.purplemash.com/sit	Ask the children to explore a
MADE, ASSOCIATING SOME OF	and The Way That Sound Travels	e#games/2diy/how sounds are	range of sound making items
THEM WITH SOMETHING	(2Diy)	<u>made</u>	and then record them using
VIBRATING	How Sounds Are Made. – Slide Show	http://www.purplemash.com/sit	2Sequence. Get them to order
VIDRATING		e#bloglinks/sound slideshow	the recording from loudest to
• RECOGNISE THAT VIBRATIONS	How Sounds Are Made - Leaflet -	http://www.purplemash.com/sit	quietest.
FROM SOUNDS TRAVEL	(Publishing project - <b>2Publish</b> )	<u>e#leaflets/Sound</u>	2Sequence
THROUGH A MEDIUM TO THE	Sounds Quiz ( <b>2Diy</b> )	http://www.purplemash.com/sit	https://www.purplemash.com
		e#games/2diy/how sounds are	/#app/tools/2seq
EAR		<u>made</u>	Explore premade short clips in
• FIND PATTERNS BETWEEN THE	Sound Postcard-(Publishing project -	http://www.purplemash.com/sit	2sequence. Ask the children
PITCH OF A SOUND AND	2Publish)	e#postcards/soundpostcard	to create a composition which
	Guitarist – Mashcam	https://www.purplemash.com/#	demonstrates scales. Get
FEATURES OF THE OBJECT THAT		app/mashcam/guitarist cam	them to explain what is
PRODUCED IT	Absorbing Sound - Printable	https://www.purplemash.com/#	happening for us to hear a
• FIND PATTERNS BETWEEN THE		tab/pm-	change in pitch.
		home/science/sound/printable	2Sequer
VOLUME OF A SOUND AND THE		resources science sound	https://www.purplemash.com
STRENGTH OF THE VIBRATIONS	Sound Insulation-(Publishing project -	https://www.purplemash.com/#	/#app/tools/2seq
THAT PRODUCED IT	2Publish)	app/pup/Sound insulation	Using <b>2Animate</b> , children to
RECOGNISE THAT SOUNDS GET	How Humans Hear – ( <b>2Quiz</b> )	https://www.purplemash.com/#	produce an animation which
		app/games/2diy/Hearing	models the process of sound
FAINTER AS THE DISTANCE			travelling from a source to the
FROM THE SOUND SOURCE	Fair Test - (Publishing project -	https://www.purplemash.com/#	ear through different
INCREASES.	2Publish)	app/pup/fair test	mediums.
		<u></u>	2.4
			https://www.purplemash.com
			/#app/tools/2ani



National Curriculum Statement	Purple Mash Resource	Direct link to resource	Ideas, links to Planning & Resources
• IDENTIFY COMMON APPLIANCES THAT RUN ON ELECTRICITY	To Sort Objects into Electrical and Non-Electrical ( <b>2Diy</b> )	http://www.purplemash.com/site#g ame/2diy/electricalnotelectrical	The following resource could be adapted to suit Year 4 pupils. KS2 Circuits Practical Enquiry –
• CONSTRUCT A SIMPLE SERIES ELECTRICAL CIRCUIT, IDENTIFYING	Electrical Safety Leaflet - (Publishing project - <b>2Publish</b> )	https://www.purplemash.com/#app /leaflets/Electrical_Safety	Printable https://www.purplemash.com/
AND NAMING ITS BASIC PARTS, INCLUDING CELLS, WIRES, BULBS,	Electricity in The Home - (Publishing project - <b>2Publish</b> )	https://www.purplemash.com/#app /pup/Electricity in the home	app/lessonplans/info/printable science circuits practical enc
<ul><li>SWITCHES AND BUZZERS.</li><li>IDENTIFY WHETHER OR NOT A</li></ul>	Electrical Components – (Publishing project - <b>2Publish</b> )	https://www.purplemash.com/#app /pup/How a bulb lights up	2Quiz suggestions:
LAMP WILL LIGHT IN A SIMPLE SERIES CIRCUIT, BASED ON	How A Bulb Works in A Circuit - (Publishing project - <b>2Publish</b> )	https://www.purplemash.com/#app /pup/How a bulb lights up	Use the sorting question and as the children to sort appliances
WHETHER OR NOT THE LAMP IS PART OF A COMPLETE LOOP WITH	Ordering Brightness of Bulbs - (Publishing project - <b>2Publish</b> )	https://www.purplemash.com/#app /tools/2pubextra/Ordering the brig htness of the bulb	the house that need electricity to work.
A BATTERY.			• Take images of a circuit and upload to the labelling
RECOGNISE THAT A SWITCH     OPENS AND CLOSES A CIRCUIT     AND ASSOCIATE THIS WITH	Electrical Symbols Pairs – ( <b>2Diy</b> )	https://www.purplemash.com/#app /games/2diy/Electrical Symbols Pai rs	question in 2Quiz. Children to name the correct parts by dragging labels.
WHETHER OR NOT A LAMP	Electrical Engineer – Mashcam	https://www.purplemash.com/#app /mashcam/Electrical_engineer_cam	<ul> <li>Use the image-based question and upload various circuits.</li> <li>Children must decide which</li> </ul>



LIGHTS IN A SIMPLE SERIES	Thomas Edison Fact files -	https://www.purplemash.com/#tab/	circuits will work and what will
CIRCUIT.	(Publishing project - <b>2Publish</b> )	<u>pm-</u>	happen when power is
		home/science/famous_scientists/th	applied.
RECOGNISE SOME COMMON		omas edison	https://www.purplemash.com/#
CONDUCTORS AND INSULATORS,			app/diyjs/2quiz
AND ASSOCIATE METALS WITH			2DIY Games
BEING GOOD CONDUCTORS.			2DIY Games
			Children can create their own
			games where points are scored
			or lost due to various properties
			of objects such as conductor,
			insulator etc.
			https://www.purplemash.com/#
			tab/pm-home/tools/2diynew



LIVING THINGS AND THEIR HABITATS				
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Ideas, links to Planning & Resources	
DESCRIBE THE DIFFERENCES IN THE LIFE CYCLES OF A MAMMAL, AN AMPHIBIAN, AN INSECT AND A BIRD.	Life Cycle of a Butterfly - (Publishing project - <b>2Publish</b> )	http://www.purplemash.com/# pup/minibeasts_butterflylifecycl e	The following resource could be adapted to suit Year 5. Butterfly Life Cycle - <b>Printable</b> .	
DESCRIBE THE LIFE PROCESS OF REPRODUCTION IN SOME PLANTS AND ANIMALS.	Life Cycle of a Butterfly - (Publishing project - <b>2Publish</b> )	http://www.purplemash.com/#l eaflets/butterflylifecycle	https://www.purplemash.co m/#app/lessonplans/info/pri ntables science lifecyclebutt erfly	
FLANTS AND ANIMALS.	All About Germination - (Publishing project - <b>2Publish</b> )	http://www.purplemash.com/# pup/germination	Using <b>2Investigate</b> , produce a database of amphibians, insects, mammals, or birds from around the world.	
	Adult and Baby Animals - (Publishing project - <b>2Publish</b> )	http://www.purplemash.com/# pup/adultandbabyanimals	https://www.purplemash.co m/#app/tools/2inv	
	Life Cycle of a Plant – ( <b>2Diy</b> )	https://www.purplemash.com/ #app/games/2diy/life cycle of a plant	Using the lesson Coding Principles – Handling Input create a simple quiz about the life cycle of an animal	
			https://www.purplemash.co m/app/code/codeprinciples/ 2codehandlinginput-en_us	



ANIMALS, INCLUDING HUMANS				
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Ideas, links to Planning & Resources	
DESCRIBE THE CHANGES AS     HUMANS DEVELOP TO OLD     AGE.	Growing and Changing - (Publishing project - <b>2Publish</b> )	http://www.purplemash.com/ #pup/growingandchanging	Using <b>2Quiz</b> , create a labelling activity to show what happens to the body of a boy and girl as they get older.	
	Growing and Changing – Printable	https://www.purplemash.com /#app/lessonplans/info/printa bles science growing changin g	https://www.purplemash.com/#a pp/diyjs/2quiz	
	Biologist Mashcam	https://www.purplemash.com /#app/mashcam/biologist_ca m	Create a sorting activity in <b>2Quiz</b> and ask the children to sort changes onto male changes, female changes, and changes to both sexes. <u>https://www.purplemash.com/#a</u> <u>pp/diyis/2quiz</u> Using <b>2Blog</b> , ask the children to respond to a blog about changes as we get older. An excellent way for encouraging thinking and stimulating discussions.	



National Curriculum Statement	Purple Mash Resource	Direct link to resource	Ideas, links to Planning & Resources
COMPARE AND GROUP     TOGETHER EVERYDAY     MATERIALS ON THE BASIS OF     THEIR PROPERTIES, INCLUDING	To Compare the Features and Properties of Some Natural and Manmade Materials ( <b>2Diy</b> ) Describe the Properties of	http://www.purplemash.com/ site#games/2diy/naturalandm anmade http://www.purplemash.com/	Using <b>2Quiz</b> , ask the children to create a Venn diagram with specific criterion. For example, they could use it to sort materials according to their various
THEIR HARDNESS, SOLUBILITY, TRANSPARENCY, CONDUCTIVITY (ELECTRICAL	Materials -(Publishing project - <b>2Publish</b> )	site#pup/Materials	properties such as transparency, rigidity, responses to magnets etc.
AND THERMAL), AND RESPONSE TO MAGNETS.	Compare Materials - (Publishing project - <b>2Publish</b> )	http://www.purplemash.com/ site#pup/comparethematerials	https://www.purplemash.com/#a
<ul> <li>KNOW THAT SOME MATERIALS</li> <li>WILL DISSOLVE IN LIQUID TO</li> <li>FORM A SOLUTION AND</li> </ul>	Irreversible Changes -(Publishing project - <b>2Publish</b> )	http://www.purplemash.com/ site#pup/irreversiblechanges	pp/divis/2quizg Using <b>2Investigate</b> , create a
DESCRIBE HOW TO RECOVER A SUBSTANCE FROM A	Reversible Changes -(Publishing project - <b>2Publish</b> )	http://www.purplemash.com/ site#pup/reversiblechanges	database of different materials and their properties. Children write various questions and ask
SOLUTION. USE KNOWLEDGE OF SOLIDS,	Solids Liquids and Gases - (Publishing project - <b>2Publish</b> )	http://www.purplemash.com/ #pup/solidsliquidsgases	their peers to answer them by sorting the database for appropriate information.
LIQUIDS AND GASES TO DECIDE HOW MIXTURES MIGHT BE SEPARATED, INCLUDING	Fair Test Experiment -(Publishing project - <b>2Publish</b> )	http://www.purplemash.com/ site#pup/fair_test	https://www.purplemash.com/#
THROUGH FILTERING, SIEVING AND EVAPORATING.	Reversible Changes - (Publishing project - <b>2Publish</b> )	http://www.purplemash.com/ site#pup/reversiblechanges	Using <b>2Question</b> , design a branching database to separate various materials by asking
GIVE REASONS, BASED ON     EVIDENCE FROM     COMPARATIVE AND FAIR	Irreversible Changes -(Publishing project - <b>2Publish</b> )	http://www.purplemash.com/ site#pup/irreversiblechanges	questions about their properties.

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2 simple

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.

Use **2Connect** to plan out an experiment to test for reversible and irreversible changes. <u>https://www.purplemash.com/#a</u> <u>pp/tools/2Connect</u> Using the **blank diary**, use a camera and record what happens each day when you try to separate two materials and show reversible change e.g. salt and water. <u>https://www.purplemash.com/#a</u> <u>pp/pup/Blank\_diary</u>



National Curriculum Statement	Purple Mash Resource	Direct link to resource	Ideas, links to Planning & Resources
DESCRIBE THE MOVEMENT OF     THE EARTH, AND OTHER     PLANETS, RELATIVE TO THE	The Planets -(Publishing project - <b>2Publish</b> )	http://www.purplemash.co m/#pup/planetorder	Famous Scientists – Fact files https://www.purplemash.com/#t
	Day and Night -(Publishing project - <b>2Publish</b> )	http://www.purplemash.co m/site#pup/earth_moveme nt	<u>ab/pm-</u> home/science/famous_scientists
THE MOON RELATIVE TO THE	Planet Profile -(Publishing project - <b>2Publish</b> )	<u>http://www.purplemash.co</u> <u>m/#pup/planetprofile</u>	<ul><li>Space Printables</li><li>Day &amp; Night</li></ul>
DESCRIBE THE SUN, EARTH     AND MOON AS     APPROXIMATELY SPHERICAL	Movement of the Earth -(Publishing project - <b>2Publish</b> )	https://www.purplemash.c om/#app/pup/earth movement	<ul> <li>Geocentric &amp; Heliocentric</li> <li>The Planets – Movement</li> <li>The Planets – Order</li> </ul>
BODIES. USE THE IDEA OF THE EARTH'S ROTATION TO EXPLAIN DAY AND NIGHT AND THE APPARENT MOVEMENT OF THE SUN ACROSS THE SKY.	Movement of the Moon -(Publishing project - <b>2Publish</b> )	https://www.purplemash.c om/#app/pup/moon_move ment	<ul> <li>Planet Fact Cards</li> <li>Planet Fact Cards (Blank)</li> <li><u>https://www.purplemash.com/#tab/pm-</u></li> </ul>
	Solar System Leaflet -(Publishing project - <b>2Publish</b> )	https://www.purplemash.c om/#app/leaflets/ solarsystem	home/science/science resources /printable resources science sp ace
	Space Information Leaflet -(Publishing project - <b>2Publish</b> )	https://www.purplemash.c om/#app/leaflets/ spaceinformation leaflet 2	Use <b>2investigate</b> to get the children to interrogate a database on the planets.
	Neil Armstrong -(Publishing project - <b>2Publish</b> )	https://www.purplemash.c om/#app/pup/ neilarmstrong_interest	https://www.purplemash.com/#a



Interview with Neil Armstrong -	https://www.purplemash.c	Using <b>2Diy 3D</b> , create a 3D game
(Publishing project - <b>2Publish</b> )	om/#app/pup/	where the children must collect
	neilarmstrong interview	the planets and avoid the
		asteroids.
Moon Landing News - (Publishing	https://www.purplemash.c	JL
project - <b>2Publish</b> )	om/#app/pup/	2DIY 3D
	moon landing1	https://www.purplemash.com/#t
		ab/pm-home/tools/2divgaming
Moon Landing News 2 - (Publishing	https://www.purplemash.c	
project - <b>2Publish</b> )	om/#app/pup/	
	moon landing2	Use <b>2Blog</b> to create a class blog
Moon Landing Research -(Publishing	https://www.purplemash.c	where the children can save any
		research they complete to
project - <b>2Publish</b> )	om/#app/pup/	support the study of Earth and
	moon landing research	
Neil Armstrong – 2Respond	https://www.purplemash.c	Space.
	om/app/2email/2respond/	🖌 🕺
	neilarmstrong 2respond#/c	2Blog
	himp	https://www.purplemash.com/ap
Astronaut – Mashcam	https://www.purplemash.c	p/link/2blogchildren#/app/admin
	om/#app/mashcam/astrona	<u>/home</u>
	ut cam	
		Children can use <b>2Animate</b> , to
		create an animation which
		demonstrates day and night.
		https://www.purplemash.com/#a
		pp/tools/2ani



FORCES			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Ideas, links to Planning &
			Resources
• EXPLAIN THAT UNSUPPORTED OBJECTS FALL TOWARDS THE EARTH BECAUSE OF THE FORCE OF GRAVITY ACTING BETWEEN THE EARTH AND THE FALLING	Forces in Action 1 -(Publishing project - <b>2Publish</b> ) Forces in Action 2 -(Publishing project - <b>2Publish</b> )	http://www.purplemash.com/#pup/forceshttp://www.purplemash.com/#pup/forces2	Create a graph to show how much force is needed to drag an object over different surfaces.
OBJECT. <ul> <li>IDENTIFY THE EFFECTS OF AIR RESISTANCE, WATER</li> </ul>	Forces in Action 3 - (Publishing project - <b>2Publish</b> ) Isaac Newton - (Publishing project -	http://www.purplemash.co m/#pup/forces3 https://www.purplemash.c	https://www.purplemash.com/#a pp/isapps/graph
RESISTANCE AND FRICTION, THAT ACT BETWEEN MOVING SURFACES.	2Publish)	om/#app/pup/Isaac_Newto n_allabout	Plan a fair test using this publishing resource template. <u>https://www.purplemash.com/#a</u>
• RECOGNISE THAT SOME MECHANISMS, INCLUDING LEVERS, PULLEYS AND GEARS, ALLOW A SMALLER FORCE TO	Types of Forces – <b>Printable</b>	https://www.purplemash.c om/#app/lessonplans/info/ printables science forces t ypes	pp/pup/fair_test Create a vehicle to see how far it
HAVE A GREATER EFFECT.	Isaac Newton – <b>2Respond</b>	https://www.purplemash.c om/app/2email/2respond/i saacnewton 2respond	the chassis.
			<u>https://www.purplemash.com/#a</u> pp/tools/2dam



	Create a mind map to plan an
	experiment to identify the effects
	of friction on a moving object.
	2Connect
	https://www.purplemash.com/#a
	pp/tools/2Connect



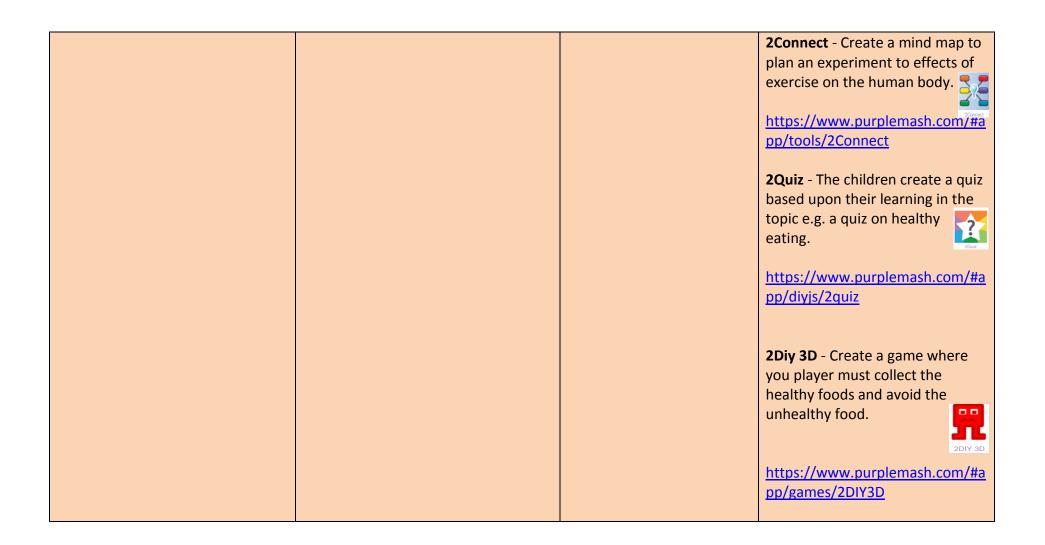
#### LIVING THINGS AND THEIR HABITATS

National Curriculum Statement	Purple Mash Resource	Direct link to resource	Ideas, links to Planning & Resources
DESCRIBE HOW LIVING THINGS     ARE CLASSIFIED INTO BROAD	All about Birds -(Publishing project - <b>2Publish</b> )	https://www.purplemash.c om/#app/pup/birds	Famous Scientists – Fact files
GROUPS ACCORDING TO COMMON OBSERVABLE	All About Fish -(Publishing project - <b>2Publish</b> )	https://www.purplemash.c om/#app/pup/fish	https://www.purplemash.com/#t ab/pm-
CHRACTERISTICS AND BASED ON SIMILARITIES AND DIFFERENCES,	All About Amphibians -(Publishing project - <b>2Publish</b> )	https://www.purplemash.c om/#app/pup/amphibians	home/science/famous scientists Animals – <b>Printable</b> resources
INCLUDING MICRO- ORGANSISMS, PLANTS AND	All About Reptiles -(Publishing project - <b>2Publish</b> )	https://www.purplemash.c om/#app/pup/reptiles	https://www.purplemash.com/#t
ANIMALS     GIVE REASONS FOR CLASSIFYING	All About Mammals -(Publishing project - <b>2Publish</b> )	https://www.purplemash.c om/#app/pup/mammals	ab/pm- home/science/animals/printable resources science animals
PLANTS AND ANIMALS BASED ON SPECIFIC CHARACTERISTICS.	All About Nocturnal Animals - (Publishing project - <b>2Publish</b> )	<u>https://www.purplemash.c</u> om/#app/pup/animals_noc turnalallabout	Ask the children to use <b>2Question</b>
	Microorganisms Leaflet -(Publishing project - <b>2Publish</b> )	https://www.purplemash.c om/#app/leaflets/microorg anisms leaflet	to make a classification branching database.
	All About Microorganisms -(Publishing project - <b>2Publish</b> )	https://www.purplemash.c om/#app/pup/microorganis ms_allabout	https://www.purplemash.com/#a pp/tools/2question
			Use <b>2investigate</b> to create a collaborative database on classification.
			https://www.purplemash.com/#a pp/tools/2inv



ANIMALS, INCLUDING HUN	IANS		
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Ideas, links to Planning & Resources
IDENTIFY AND NAME THE MAIN PARTS OF THE HUMAN CIRCULATORY SYSTEM, AND DESCRIBE THE FUNCTIONS OF THE HEADT OF ORD MERCENS	All About Organs -(Publishing project - <b>2Publish</b> ) What Happens During Exercise -	http://www.purplemash.co m/#pup/hb allabout organ s http://www.purplemash.co	The Human Body – <b>Printable</b> resources • Circulation – Blood • Circulation – Heart • Circulation – Lungs
THE HEART, BLOOD VESSELS AND BLOOD.	(Publishing project - <b>2Publish</b> )	m/#pup/hb exercise what happens	https://www.purplemash.com/#t ab/pm- home/science/human_body/print
RECOGNISE THE IMPACT OF DIET, EXERCISE, DRUGS AND LIFESTYLE ON THE WAY THEIR	Exercise Poster -(Publishing project - 2Publish)	http://www.purplemash.co m/#pup/hb_exercise_poste r	<u>able resources science humanb</u> ody
<ul> <li>BODIES FUNCTION.</li> <li>DESCRIBE THE WAYS IN WHICH NUTRIENTS AND WATER ARE TRANSPORTED WITHIN ANIMALS, INCLUDING HUMANS.</li> </ul>	Label the Basic Parts of The Digestive System in Humans – <b>2Diy</b>	http://www.purplemash.co m/site#games/2diy/digestiv e_system	Health and Growth – <b>Printable</b> resources • Exercise
	To Identify the Effect of Alcohol on The Human Body -(Publishing project - <b>2Publish</b> )	http://www.purplemash.co m/site#pup/effects_of_alco hol	https://www.purplemash.com/#t ab/pm- home/science/health and growt h/printable resources science h
	Circulatory System – <b>2Quiz</b>	https://www.purplemash.c om/#app/games/2diy/Circu latory System	ealth and growth Create a graph to show the effect of different kinds of exercise on the heart.
			https://www.purplemash.com/#a pp/jsapps/graph







EVOLUTION AND INHERITANCE			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Ideas, links to Planning & Resources
RECOGNISE THAT LIVING     THINGS HAVE CHANGED OVER     TIME AND THAT FOSSILS     PROVIDE INFORMATION     ABOUT LIVING THINGS THAT     INHABITED THE EARTH	Fossil Fact File -(Publishing project - <b>2Publish</b> ) Fossil Leaflet -(Publishing project - <b>2Publish</b> )	https://www.purplemash.c om/#app/pup/fossils_factfil e https://www.purplemash.c om/#app/leaflets/fossils_le aflet	Fossil Stages – <b>Printable</b> <u>https://www.purplemash.com/#a</u> <u>pp/lessonplans/info/printables_sc</u> <u>ience_fossils</u> Famous Scientists – Fact files
MILLIONS OF YEARS AGO. • RECOGNISE THAT LIVING THINGS PRODUCE OFFSPRING OF THE SAME KIND, BUT NORMALLY OFFSPRING VARY	The Stages of Fossilisation - (Publishing project - <b>2Publish</b> ) Fossilisation - <b>2Quiz</b>	https://www.purplemash.c om/#app/pup/The_stages of_fossilisation https://www.purplemash.c om/#app/game/2diy/Fossili sation_order_Quiz	<u>https://www.purplemash.com/#t</u> <u>ab/pm-</u> <u>home/science/famous_scientists</u>
AND ARE NOT IDENTICAL TO THEIR PARENTS.	Dinosaurs Leaflet -(Publishing project - <b>2Publish</b> )	http://www.purplemash.co m/#leaflets/dinosaurs	<b>2Investigate</b> - Create a class dinosaur database. Fields could
IDENTIFY HOW ANIMALS AND PLANTS ARE ADAPTED TO SUIT THEIR ENVIRONMENT IN DIFFERENT WAYS AND THAT ADAPTATION MAY LEAD TO EVOLUTION.	All About Dinosaurs -(Publishing project - <b>2Publish</b> ) Describing Dinosaurs-(Publishing project - <b>2Publish</b> ) DNA Quiz – <b>2Diy</b>	http://www.purplemash.co m/#pup/dinosaurs_allabout http://www.purplemash.co m/#pup/dinosaurs_describi ng https://www.purplemash.c om/#app/games/2diy/dna	include ✓ Name ✓ Period lived ✓ Diet ✓ Size ✓ Weight ✓ Fact
	Adaption to A Temperate Climate- (Publishing project - <b>2Publish</b> ) Adaption to An Ocean Climate- (Publishing project - <b>2Publish</b> )	<u>duiz</u> <u>http://www.purplemash.co</u> <u>m/#pup/adaptation_tempe</u> <u>rate</u> <u>http://www.purplemash.co</u> <u>m/#pup/adaptation_ocean</u>	https://www.purplemash.com/#a pp/tools/2inv



Adaption to A Tundra Climate-	http://www.purplemash.co	2Quiz - Create a quiz about how
(Publishing project -2Publish)	m/#pup/adaptation tundra	animals are adapted to suit
Adaption to A Desert Climate-	http://www.purplemash.co	different environments.
(Publishing project - <b>2Publish</b> )	m/#pup/adaptation_desert	different environments.
Adaption to A Tropical Climate-	http://www.purplemash.co	2Quez
(Publishing project - <b>2Publish</b> )	m/#postcards/tropical	https://www.purplemash.com/#a
Adaption to A Polar Climate-	http://www.purplemash.co	pp/diyjs/2quiz
(Publishing project - <b>2Publish</b> )	m/#postcards/polar	
Arctic Labelling -( <b>2Diy</b> )	http://www.purplemash.co	
	m/#games/2diy/Arctic Lab	
	elling	
Polar Explorer Game – ( <b>2Diy</b> )	http://www.purplemash.co	
	m/#games/2diy/Polar Pairs	



LIGHT			
National Curriculum Statement	Purple Mash Resource	Direct link to resource	Ideas, links to Planning & Resources
RECOGNISE THAT LIGHT     APPEARS TO TRAVEL IN     STRAIGHT LINES.	How Light Travels -(Publishing project - <b>2Publish</b> )	http://www.purplemash.c om/site#pup/lighttravels	Famous Scientists – Fact files <u>https://www.purplemash.com/#ta</u> <u>b/pm-</u> <u>home/science/famous_scientists</u>
• USE THE IDEA THAT LIGHT TRAVELS IN STRAIGHT LINES TO EXPLAIN THAT OBJECTS ARE	Light and Mirrors -(Publishing project - <b>2Publish</b> )	http://www.purplemash.c om/site#pup/lightandmirr ors	<b>2Graph</b> - children to record results from an investigation of shadow
SEEN BECAUSE THEY GIVE OUT OR REFLECT LIGHT INTO THE EYE.	Sources of Light - (Publishing project - <b>2Publish</b> )	https://www.purplemash. com/#app/pup/lightorrefl ector	length. X axis = distance from light source. Y axis = length of shadow.
• EXPLAIN THAT WE SEE THINGS BECAUSE LIGHT TRAVELS FROM	Reflective Surfaces -	https://www.purplemash.	https://www.purplemash.com/#ap p/tools/2graph
LIGHT SOURCES TO OUR EYES OR FROM LIGHT SOURCES TO OBJECTS AND THEN TO OUR		<u>com/#app/pup/lightreflec</u> tabsorb	<b>2Design and Make</b> - Give the children the task of making a periscope. What will they need to
• USE THE IDEA THAT LIGHT	Light Bulb Quiz – <b>2Diy</b>	https://www.purplemash.	consider when designing it? What will make it successful?
TRAVELS IN STRAIGHT LINES TO EXPLAIN WHY SHADOWS HAVE	Chadaura Drintabla	com/#app/games/2diy/Lig ht_Bulb	https://www.purplemash.com/#ap p/tools/2dam
THE SAME SHAPE AS THE OBJECTS THAT CAST THEM.	Shadows – Printable	https://www.purplemash. com/site#app/lessonplans /info/printables_science_s hadows	<b>2Animate</b> - Create an animation which helps to demonstrate how a shadows size can change according
	Sundial – <b>Printable</b>	https://www.purplemash. com/site#app/lessonplans /info/printables_science_s undial	to the position of the light source on a given object. <u>https://www.purplemash.com</u> , <u>p/tools/2ani</u>

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ELECTRICITY				
r	National Curriculum Statement	Purple Mash Resource	Direct link to resource	Ideas, links to Planning & Resources
<ul> <li>ASSOCIATE THE BRIGHTNESS OF A LAMP OR THE VOLUME OF A BUZZER WITH THE NUMBER AND VOLTAGE OF CELLS USED IN THE CIRCUIT</li> <li>COMPARE AND GIVE REASONS</li> </ul>	Match the Symbol to The Name Electrical Components in A Circuit -	http://www.purplemash.c om/site#games/2diy/Elect rical Symbols Pairs https://www.purplemash. com/site#app/pup/Electri cal Components and Sy mbols	Mashcam – Ask the children to use the Electrical Engineer Mashcam explain how the brightness of a lamp is affected by the number of cells and components in a circuit. https://www.purplemash.com/site	
	FOR VARIATIONS IN HOW COMPONENTS FUNCTION, INCLUDING THE BRIGHTNESS	Circuits Practical Enquiry – <b>Printable</b>	https://www.purplemash. com/site#app/lessonplans /info/printables science c ircuits practical enquiry	#app/mashcam/Electrical enginee r cam Famous Scientists – Fact files. Focus on Thomas Edison.
	OF BULBS, THE LOUDNESS OF BUZZERS AND THE ON/OFF POSITION OF SWITCHES	Ordering the Brightness of a Bulb	https://www.purplemash. com/site#app/tools/2pub extra/Ordering the bright ness of the bulb	https://www.purplemash.com/#ta b/pm- home/science/famous_scientists
•	USE RECOGNISED SYMBOLS WHEN REPRESENTING A SIMPLE CIRCUIT IN A	How A Bulb Works in A Circuit	https://www.purplemash. com/site#app/pup/How a bulb lights up	<b>2Connect</b> – Use 2Connect to share ideas on how to create a buzz wire
	DIAGRAM.	Draw Circuits In 2Publish Extra -	http://www.purplemash.c om/#tools/2pubExtra	game or working SOS device.
		Electrical Safety - (Publishing project - <b>2Publish</b> ) *Non-Statutory suggested NC Objective.	https://www.purplemash. com/site#app/leaflets/Ele ctrical_Safety	#app/tools/2Connect

