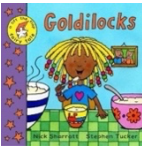






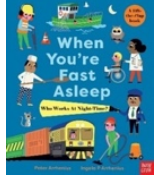












Sir William Burrough Curriculum Map: Understanding the World/Science

Understanding the World/Science at Sir William Burrough					
Year A and B - Explorers - Nursery					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
					
<p>Understanding the World <i>the natural world</i></p> <p>All About Me</p> <p>use all their senses in hands-on exploration of natural materials</p> <p>explore collects of materials with similar and/or different properties</p>	<p>Understanding the World <i>the natural world</i></p> <p>Communities and Celebrations</p> <p>use all their senses in hands-on exploration of natural materials</p> <p>explore and talk about different forces they can feel</p>	<p>Understanding the World <i>the natural world</i></p> <p>Journeys and Adventures</p> <p>use all their senses in hands-on exploration of natural materials</p> <p>explore and talk about different forces they can feel</p>	<p>Understanding the World <i>the natural world</i></p> <p>Amazing Animals</p> <p>use all their senses in hands-on exploration of natural materials</p> <p>understand the key features of the life cycle of a plat and an animal</p> <p>talk about the differences between materials and changes they notice</p>	<p>Understanding the World <i>the natural world</i></p> <p>Growing and Food</p> <p>use all their senses in hands-on exploration of natural materials</p> <p>plant seeds and care for growing plants</p> <p>begin to understand the need to respect and care for the natural environment and all living things</p>	<p>Understanding the World <i>the natural world</i></p> <p>Let's Imagine</p> <p>use all their senses in hands-on exploration of natural materials</p> <p>begin to understand the need to respect and care for the natural environment and all living things</p>
<ul style="list-style-type: none"> sea animals foods: porridge making lemonade materials: building homes numbers to 3- natural resources 	<ul style="list-style-type: none"> materials: building homes dinosaur bones dinosaur swamp (habitats) building bridges 	<ul style="list-style-type: none"> minibeasts habitats space: build a rocket hot air balloons construction: vehicles 	<ul style="list-style-type: none"> sea animals farm animals butterflies and caterpillars materials: 3lp magnets 	<ul style="list-style-type: none"> types of food (fruit and vegetables) minibeasts planting height and distance (guttering) magnets 	<ul style="list-style-type: none"> building bridges number 5- natural resources under the bridge habitats (forests)






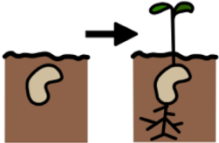
Sir William Burrough Curriculum Map: Understanding the World/Science

Year A and B - Explorers - Reception					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
					
<p>Understanding the World <i>the natural world</i></p> <p>All About Me</p> <p>explore the natural world around them</p> <p>describe what they say, hear and feel whilst outside</p>	<p>Understanding the World <i>the natural world</i></p> <p>Communities and Celebrations</p> <p>explore the natural world around them</p> <p>describe what they say, hear and feel whilst outside</p> <p>recognise some environments that are different to the one in which they live</p>	<p>Understanding the World <i>the natural world</i></p> <p>Journeys and Adventures</p> <p>explore the natural world around them</p> <p>describe what they say, hear and feel whilst outside</p> <p>recognise some environments that are different to the one in which they live</p>	<p>Understanding the World <i>the natural world</i></p> <p>Amazing Animals</p> <p>explore the natural world around them</p> <p>describe what they say, hear and feel whilst outside</p>	<p>Understanding the World <i>the natural world</i></p> <p>Growing and Food</p> <p>explore the natural world around them</p> <p>describe what they say, hear and feel whilst outside</p> <p>recognise some environments that are different to the one in which they live</p> <p>recognise the effect of the changing seasons on the natural world around them</p>	<p>Understanding the World <i>the natural world</i></p> <p>Let's Imagine</p> <p>explore the natural world around them</p> <p>describe what they say, hear and feel whilst outside</p>
<ul style="list-style-type: none"> • skeletons • farm animals • materials: building homes • autumn investigation • gardening • sea animals • veg and fruit stand 	<ul style="list-style-type: none"> • trains and transport • sieving • weight • floating and sinking • pumpkin patch 	<ul style="list-style-type: none"> • space • farm animals • magnets and forces • dissolving bath bombs 	<ul style="list-style-type: none"> • sea animals • pets • farm animals • zoo animals • planting • animal enclosures • sieving • fishing 	<ul style="list-style-type: none"> • planting and gardening • vegetables • parts of a plant • height and distance (balls and guttering) 	<ul style="list-style-type: none"> • habitats (forests, woodlands) • caves • sustainability: cleaning the ocean • height and distance (balls and guttering)


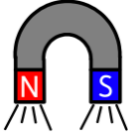




Sir William Burrough Curriculum Map: Understanding the World/Science

Year A - Adventurers - Y1/2					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
					
<p>Biology Plants</p> <ul style="list-style-type: none"> observe and compare trees identify and label parts of a plant investigate what plants need to grow explain what plants need to grow identify locally growing wild plants 	<p>Biology Animals (incl. humans)</p> <ul style="list-style-type: none"> name and identify animals name and identify animals omnivores, carnivores and herbivores observe how different animals move identify which animals we can keep as pets 	<p>Chemistry Everyday Materials</p> <ul style="list-style-type: none"> identify and name a variety of everyday materials identify and name paper in a variety of forms identify and name a variety of fabrics 	<p>Chemistry Everyday Materials</p> <ul style="list-style-type: none"> recognise that most objects are made from more than one material describe how the same type of object can be made using different materials identify and describe the physical properties of materials investigate the stretchiness and flexibility of materials explore the properties of absorbency and waterproofing 	<p>Physics Seasons 6 [+ plants]</p> <ul style="list-style-type: none"> describe the weather, how it is different at different seasons of the year and how that affects what we wear 	<p>Biology Animals (incl. humans)</p> <ul style="list-style-type: none"> describe how our sense of touch helps us to learn about the world around us investigate our senses [sight] investigate our senses [all]
<p>Physics Seasons 3</p> <ul style="list-style-type: none"> observe and describe the different seasons observe how trees change over the year 	<p>Physics Seasons 4</p> <ul style="list-style-type: none"> describe the weather and how it is different at different seasons of the year 	<p>Physics Seasons 5</p> <ul style="list-style-type: none"> observe, describe and compare the changing seasons of the year describe the weather and how it varies at different seasons of the year 		<p>Biology Animals (incl. humans)</p> <ul style="list-style-type: none"> identify, name and compare basic body parts investigate our senses [smell] describe, compare and group different edible materials by using the sense of taste identify, compare and group the sounds collected during a sound walk 	<p>Physics Seasons 5</p> <ul style="list-style-type: none"> describe and compare weather associated with the seasons
					<p>Biology Plants</p> <ul style="list-style-type: none"> name wild and garden plants


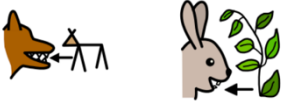
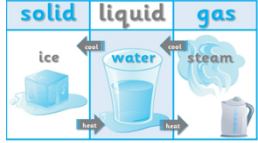
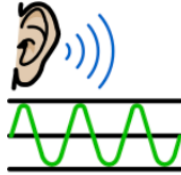


Sir William Burrough Curriculum Map: Understanding the World/Science

Year B - Adventurers - Y1/2					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
					
<p>Biology Plants</p> <ul style="list-style-type: none"> identify and compare different seeds ask questions about how plants grow observe how seeds germinate describe how seeds germinate perform a simple test to find out what plants need to stay healthy. use our observations to explain what plants need to stay healthy 	<p>Biology Living Things and their Habitats</p> <ul style="list-style-type: none"> identify how living things are suited to their habitats investigate a habitat and how animals have adapted to suit this environment. describe a simple food chain describe how plants and animals in a habitat depend on each other explore the differences between things that are living, dead, and things that have never been alive 	<p>Chemistry Everyday Materials</p> <ul style="list-style-type: none"> describe objects, including naming the material from which they are made identify objects made of particular materials explain if a material is a good choice for an object test different fabrics to decide which is the best to use for dungarees explain how the shapes of objects made from some materials can be changed. invent creative and unusual uses for everyday materials 	<p>Biology Animals (incl. humans)</p> <ul style="list-style-type: none"> understand that humans have offspring and a lifecycle explain that animals have offspring that grow into adults recognise the needs of a human baby for survival recognise the names of different animals' offspring describe how different animals change as they grow. 	<p>Biology Animals (incl. humans)</p> <ul style="list-style-type: none"> explain that humans need good nutrition in order to grow/live well recognise how often we should eat each type of food explore the benefits of exercise observe the effects of exercise describe how to keep our teeth clean describe different ways to stay hygienic explain how children can stay healthy 	<p>Biology Plants</p> <ul style="list-style-type: none"> describe and draw different seeds and bulbs ask questions that will help us to find out about growing plants from seeds make an accurate record of the changes that happen to our seeds make an accurate record of the changes that happen to our seeds explain what a plant needs to grow



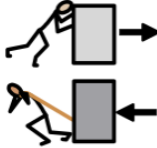

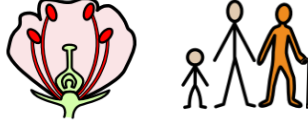

Sir William Burrough Curriculum Map: Understanding the World/Science

Year A - Pioneers - Y3/4					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
					
<p>Chemistry Rocks</p> <ul style="list-style-type: none"> describe and compare the properties of different rocks classify rocks using a key investigate rock absorbency [fair testing] investigate changes in rocks over time identify and explain different fossils describe how fossils are formed 	<p>Physics Forces and Magnets</p> <ul style="list-style-type: none"> identify how things move investigate how air can make things move compare how things move on different surfaces investigate which materials are magnetic understand how magnets attract/repel each other 	<p>Physics Light</p> <ul style="list-style-type: none"> recognise that light is needed for sight investigate how light reflects off a mirror recognise that light from the sun can be dangerous and that there are ways to protect our eyes observe, describe and explain how shadows are formed observe, describe and explain how shadow's size and shape can be changed 	<p>Biology Animals</p> <ul style="list-style-type: none"> identify the types of nutrition that humans need identify what different food groups humans need to stay healthy explain why humans and some animals have skeletons and muscles identify how muscles help us to move 	<p>Biology Plants</p> <ul style="list-style-type: none"> identify the different parts of a plant explore what plants need to grow describe, in detail, the similarities and differences in a variety of roots and relate these to the function of roots explain observations of water being transported in plants through the stem observe, in detail, the similarities and differences in a variety of leaves and relate these to the function of leaves identify and compare parts of flowers and describe their functions 	<p>Biology Plants</p> <ul style="list-style-type: none"> name the main stages of a flowering plant's life cycle describe the process of insect pollination explain methods of seed dispersal demonstrate knowledge about the different parts of plants by designing a flowering plant create a dictionary of plant vocabulary


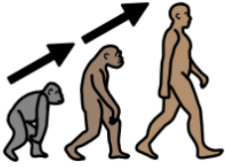
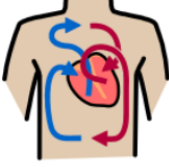

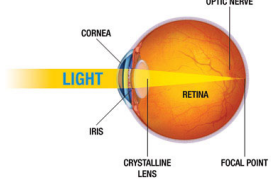
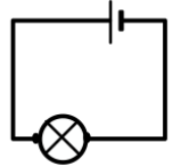
Sir William Burrough Curriculum Map: Understanding the World/Science

Year B - Pioneers - Y3/4					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
					
<p>Biology Animals (incl. humans)</p> <ul style="list-style-type: none"> explain where our food goes after it has been eaten identify the different teeth that humans have and what their functions are explain how food is broken down observe an experiment into the effects of acid on tooth enamel; discuss ways in which we can care for our teeth plan and conduct an investigation into the effectiveness of toothpaste construct food chains and webs 	<p>Biology Living Things and their Habitats</p> <ul style="list-style-type: none"> group and classify animals in different ways classify carnivores and herbivores based on their teeth understand what happens when food chains are broken understand the impact of habitat destruction in other parts of the world use classification keys to identify trees make observations of flowers that appear at different times of the year and to classify and identify them 	<p>Physics States of Matter</p> <ul style="list-style-type: none"> classify materials as solids, liquids or gases investigate how temperature affects the rate at which ice melts. investigate how the temperature affects the rate of evaporation. identify where and how condensation takes place. explore the role of evaporation and condensation in the water cycle <p><i>[no composite task]</i></p>	<p>Physics Sound</p> <ul style="list-style-type: none"> identify how sounds are made understand how sound travels describe patterns of volume of sound and the vibrations that made it measure how the loudness of a sound changes as the distance from the source increases explore pitch and how it can be changed <p><i>[no composite task]</i></p>	<p>Biology Living Things and their Habitats</p> <ul style="list-style-type: none"> recognise the changes in our local environment give examples of positive and negative ways in which humans change the environment research and present information about the impact of litter on animals describe environmental dangers to endangered species. identify seashore animals using a key recognise characteristics of some of the main invertebrate groups 	<p>Physics Electricity</p> <ul style="list-style-type: none"> sort electrical products according to their power source make and record electric circuits. describe what a switch does and how it works identify conductors and insulators predict and test complete and incomplete circuits

Sir William Burrough Curriculum Map: Understanding the World/Science

Year A - Trailblazers - Y5/6					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
					
<p>Chemistry Materials: Properties and Changes</p> <ul style="list-style-type: none"> group materials according to their properties investigate which materials are insulators and conductors identify the properties of different materials and explain what they could be used for conduct a comparative test to investigate which material is best for picnic plates observe which solids dissolve in liquid explain the processes of evaporation and condensation 	<p>Chemistry Materials: Properties and Changes</p> <ul style="list-style-type: none"> investigate variables that affect the rate at which sugar and salt dissolve investigate how to purify a mixture recognise reversible and irreversible changes in materials explore the changes involved in a candle burning investigate the conditions required for iron to rust 	<p>Physics Forces</p> <ul style="list-style-type: none"> measure friction between moving surfaces explain how objects fall through air with evidence investigate air resistance measure the effects of water resistance demonstrate how levers work explain why a larger mass stretches a rubber band/spring more than a smaller mass 	<p>Biology Living Things and their Habitats [life cycles]</p> <ul style="list-style-type: none"> compare life cycles of different animals define a mammal and describe its life cycle define an amphibian and describe its life cycle define and insect and describe the different types of life cycles, including metamorphosis define what a bird is a describe its life cycle 	<p>Biology Living Things and their Habitats [plants]</p> <ul style="list-style-type: none"> describe the process of reproduction in many flowering plants describe how plants can reproduce via the parent plant <p>Biology Animals</p> <ul style="list-style-type: none"> explore the changes as humans develop to old age identify the changes experienced at puberty <p>Physics Earth & Space</p> <ul style="list-style-type: none"> describe the shapes, positions and movement of the planets in the solar system. describe and compare the movements of different planets in space. 	<p>Physics Earth & Space</p> <ul style="list-style-type: none"> explain the effect of the earth's rotation in space. explain why sunrise and sunset occur at different moments in time across the world explain how the earth's tilt leads to seasonal changes identify the phases of the moon and explain why these occur

Sir William Burrough Curriculum Map: Understanding the World/Science

Year B - Trailblazers - Y5/6					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
					
<p>Biology Living Things and their Habitats</p> <ul style="list-style-type: none"> describe and explain how scientists classify living organisms classify plants explore classification of animals and recognize the main groups of vertebrates explore the classification of animals and recognize the main groups of invertebrates classify microorganisms investigate the growth of microorganisms 	<p>Biology Evolution and Inheritance</p> <ul style="list-style-type: none"> describe how humans have evolved recognise that fossils provide evidence of evolution identify that living things produce offspring that are of the same kind but are not identical report our findings from an experiment conducted over time research how plants are adapted to their environment identify how animals are adapted to enable them to survive 	<p>Biology Animals (incl. humans) 1</p> <ul style="list-style-type: none"> describe how the human circulatory system works investigate and describe the main functions of the heart explain how blood transports gases round the body identify the contents of blood and describe their function explain the function of valves, veins, arteries and capillaries in the human circulatory system explain how water and nutrients are transported around the body <p><i>[all tasks in part one of this unit are research based using secondary resources. Children investigate, question and present findings in a variety of ways]</i></p>	<p>Biology Animals (incl. humans) 2</p> <ul style="list-style-type: none"> describe the impact of diet and exercise on human health evaluate healthy eating guidance investigate variables that affect pulse rate identify and present the long-term effects on the body of drug use describe the long-term effects on the body of smoking 	<p>Physics Light</p> <ul style="list-style-type: none"> explain how we see things apply understanding of how light travels to explain how a periscope works understand that white light is made of many colours and these can be separated out identify the variables that affect the size of a shadow carry out a fair test to investigate shadow size give examples to explain the way that light behaves 	<p>Physics Electricity</p> <ul style="list-style-type: none"> represent a simple circuit in a diagram and describe how it works use a switch in a simple circuit, show it in a diagram and describe how it works demonstrate the effects of changing the current flowing through components in a circuit - (investigation lesson) demonstrate how circuits can be represented in, and constructed from, diagrams