BOURNVILLE PRIMARY SCHOOL SCIENCE SCHEME OF WORK MEDIUM TERM PLAN YEAR 1/2 TERMS 1/2 CYCLE A
PROJECT: ***Food Glorious Food***

NATIONAL CURRICULUM	SUGGESTED STARTING POINTS
NA	
POSSIBLE OUTCOMES	**EVALUATION**

***SEE LEARNING PROGRESSIONS FOR SKILLS COVERAGE**

BOURNVILLE PRIMARY SCHOOL SCIENCE SCHEME OF WORK MEDIUM TERM PLAN YEAR 1/2 TERMS 3/4 CYCLE A
PROJECT: *Wales*

NATIONAL CURRICULUM	SUGGESTED STARTING POINTS
Animals, including humans notice that animals, including humans, have offspring which grow into adults find out about and describe the basic needs of animals, including humans, for survival (water, food and air)	Dr Tom's 'My brilliant body' Visit rural and urban farms in Wales Monitor a lamb's progress Hatch baby chicks
POSSIBLE OUTCOMES	**EVALUATION**
Mock farmyard with real animals 'Vets' Drop-in centre to see the animals	

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BOURNVILLE PRIMARY SCHOOL SCIENCE SCHEME OF WORK MEDIUM TERM PLAN YEAR 1/2 TERMS 5/6 CYCLE A
PROJECT: ***Voyage into the unknown***

NATIONAL CURRICULUM	SUGGESTED STARTING POINTS
NA	
POSSIBLE OUTCOMES	**EVALUATION**

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BOURNVILLE PRIMARY SCHOOL SCIENCE SCHEME OF WORK MEDIUM TERM PLAN YEAR 3/4 TERMS 1/2 CYCLE A
PROJECT: ***You can make a difference***

NATIONAL CURRICULUM	SUGGESTED STARTING POINTS
Pupils should be taught to: • recognise that living things can be grouped in a variety of ways • explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment • recognise that environments can change and that this can sometimes pose dangers to living things.	Use Dr Tom's 'Exploring plants and animals' unit Gathering plant and animal data at various site e.g. at Uphill Woods Tyntesfield - plant investigation Plant nursery - investigating variables, explore requirements of plants
POSSIBLE OUTCOMES	**EVALUATION**
Develop urban area into natural area (link to English work on Windows/ Belonging) Sideshow at awareness event Bournville in bloom flower show and sale of plants Produce database / app for classifying animals / plants / human body parts	

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BOURNVILLE PRIMARY SCHOOL SCIENCE SCHEME OF WORK MEDIUM TERM PLAN YEAR 3/4 TERMS 3/4 CYCLE A
PROJECT: *Invaders and Settlers*

NATIONAL CURRICULUM	SUGGESTED STARTING POINTS
Pupils should be taught to: compare and group together different kinds of rocks on the basis of their appearance and simple physical properties describe in simple terms how fossils are formed when things that have lived are trapped within rock recognise that soils are made from rocks and organic matter. Pupils should be taught to: 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 rate of evaporation with temperature.	Dr Tom's – 'Rocks, fossils & soils' and 'States of Matter' (teach discretely) Peter from Church – Rock expert Jurrassic Coast – Charmouth Somerset and Bristol museum visits Iceman carvings Fossil hunt / CSI Make your own fossil
POSSIBLE OUTCOMES	**EVALUATION**
Include archaeological dig as part of the event Make your own fossil Fossil hunts / CSI hunt	

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BOURNVILLE PRIMARY SCHOOL SCIENCE SCHEME OF WORK MEDIUM TERM PLAN YEAR 3/4 TERMS 5/6 CYCLE A

PROJECT: *Lights, camera, action!*

NATIONAL CURRICULUM	SUGGESTED STARTING POINTS
Light recognise that they need light in order to see things and that dark is the absence of light notice that light is reflected from surfaces recognise that light from the sun can be dangerous and that there are ways to protect their eyes recognise that shadows are formed when the light from a light source is blocked by a solid object find patterns in the way that the size of shadows change. **Sound** 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 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 increases. **Electricity** identify common appliances that run on electricity construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery recognise that 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.	Dr tom's 'Electricity', 'Light' and 'Scintillating Sound' Investigate artistic applications of light eg) reflections, prisms., shadows (shadow puppets) Musical workshop creating new sounds
POSSIBLE OUTCOMES	**EVALUATION**
Make a model box for opera / musical using electrical components Make own instruments Recycled percussion band Apply to lighting / props/ set decisions Apply to musical decisions	

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BOURNVILLE PRIMARY SCHOOL SCIENCE SCHEME OF WORK MEDIUM TERM PLAN YEAR 5/6 TERMS 1/2 CYCLE A
PROJECT: *The wide, wide world*

NATIONAL CURRICULUM	SUGGESTED STARTING POINTS
Pupils should be taught to: 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.	'Space week' to stand alone in the wide, wide world topic Dr Tom – 'Galaxy Exploration' Planetarium at @Bristol
POSSIBLE OUTCOMES	**EVALUATION**
Link to Art – produce PowerPoint, leaflets of information pack re space	

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BOURNVILLE PRIMARY SCHOOL SCIENCE SCHEME OF WORK MEDIUM TERM PLAN YEAR 5/6 TERMS 3/4 CYCLE A

PROJECT: *Ready, steady, cook!*

NATIONAL CURRICULUM	SUGGESTED STARTING POINTS
Animals, including humans describe the changes as humans develop to old age. identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function describe the ways in which nutrients and water are transported within animals, including humans. **Living things and their habitats** describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird describe the life process of reproduction in some plants and animals. **Properties and changes of materials** compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution use knowledge of 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.	Dr Tom's 'Material matters', 'Changes that form new materials', take part from 'Humans, Inheritance and Evolution' and take part from 'Life, the Universe and everything' Investigate filtration and other useful techniques for cookery Health-related fitness Life Skills visit Visitors into talk about drugs an d alcohol Baby day - look after a baby all day long!
POSSIBLE OUTCOMES	**EVALUATION**
Devise new method of cooking Apply new knowledge to cookery challenges Health awareness event	

***SEE LEARNING PROGRESSIONS FOR SKILLS COVERAGE**

BOURNVILLE PRIMARY SCHOOL SCIENCE SCHEME OF WORK MEDIUM TERM PLAN YEAR 5/6 TERMS 5/6 CYCLE A
PROJECT: *On the right track*

NATIONAL CURRICULUM	SUGGESTED STARTING POINTS
Forces • 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 some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.	Dr Tom's 'Feel the force' Railway talk - safety and why leaves on the line if actually dangerous Other vehicles to be investigated (Forces workshop) Boat building / raft building
POSSIBLE OUTCOMES	**EVALUATION**
Science fair - hands on, child-led activities Boat race Train race	

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BOURNVILLE PRIMARY SCHOOL SCIENCE SCHEME OF WORK MEDIUM TERM PLAN YEAR 1/2 TERMS 1/2 CYCLE B
PROJECT: ***Land Ahoy***

NATIONAL CURRICULUM	SUGGESTED STARTING POINTS
NA	
POSSIBLE OUTCOMES	**EVALUATION**

***SEE LEARNING PROGRESSIONS FOR SKILLS COVERAGE**

BOURNVILLE PRIMARY SCHOOL SCIENCE SCHEME OF WORK MEDIUM TERM PLAN YEAR 1/2 TERMS 3/4 CYCLE B

PROJECT: *Buildings*

NATIONAL CURRICULUM	SUGGESTED STARTING POINTS
Everyday materials : distinguish between an object and the material from which it is made identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock describe the simple physical properties of a variety of everyday materials compare and group together a variety of everyday materials on the basis of their simple physical properties. **Uses of everyday materials** identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. **Living things and their habitats** explore and compare the differences between things that are living, dead, and things that have never been alive identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other identify and name a variety of plants and animals in their habitats, including micro-habitats describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.	Dr Tom's 'Group[ing materials' (See Kent SOW also) Take content from 'Green plants and habitats '(Not green plants) Famer Nick / Owl people Use nature area and pond, bird hide for studies Walk school grounds an locality - hedgerows Forest school Camping Local scouts Trip to Carymor recycling centre Visit building sites
POSSIBLE OUTCOMES	**EVALUATION**
Build habitats for animals (wormery, ant farm, home for bugs, beehive, bug hotel) Survival challenge Build a shelter / building - create a new type of building for humans and animals Make habitat for other animals	

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BOURNVILLE PRIMARY SCHOOL SCIENCE SCHEME OF WORK MEDIUM TERM PLAN YEAR 1/2 TERMS 5/6 CYCLE B

PROJECT: *If you go down to the woods today*

NATIONAL CURRICULUM	SUGGESTED STARTING POINTS
Plants • identify and describe the basic structure of a variety of common flowering plants, including trees. • identify and name a variety of common wild and garden plants, including deciduous and evergreen trees • observe and describe how seeds and bulbs grow into mature plants • find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. **Animals, including humans** • identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals • identify and name a variety of common animals that are carnivores, herbivores and omnivores • describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets) • identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.	DrTom's - Use part of 'Green plants' and 'My brilliant body' Start a plant nursery using fast growing plants (radishes and tomatoes) Plant hunt in school and woods (bark rubbings) Trip to woods / Westonbirt arboretum/ Uphill woods Growing weeds from seedlings Bring your pet to school day!
POSSIBLE OUTCOMES	**EVALUATION**
Plant show - sell plants Pet competition Create a human body book for LRC	

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BOURNVILLE PRIMARY SCHOOL SCIENCE SCHEME OF WORK MEDIUM TERM PLAN YEAR 3/4 TERMS 1/2 CYCLE B
PROJECT: ***Ancient Achievements***

NATIONAL CURRICULUM	SUGGESTED STARTING POINTS
Forces and magnets Pupils should be taught to: • 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 • compare and group together a variety of everyday materials on the basis of whether they are attracted 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.	Dr Tom 'Contact forces and forces that work at a distance' Visit Stonehenge, investigate how heavy goods could be moved Science demonstration of ancient inventions (UWE, University of Bristol) Archimedes screw - Catapults Shaduf
POSSIBLE OUTCOMES	**EVALUATION**
Weapons testing events Test inventions to destruction Magnets to be used in inventions	

***SEE LEARNING PROGRESSIONS FOR SKILLS COVERAGE**

BOURNVILLE PRIMARY SCHOOL SCIENCE SCHEME OF WORK MEDIUM TERM PLAN YEAR 3/4 TERMS 3/4 CYCLE B

PROJECT: *Body Magic*

NATIONAL CURRICULUM	SUGGESTED STARTING POINTS
Animals, including humans Pupils should be taught to: • identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat • identify that humans and some other animals have skeletons and muscles for support, protection and movement. • describe the simple functions of the basic parts of the digestive system in humans • identify the different types of teeth in humans and their simple functions • construct and interpret a variety of food chains, identifying producers, predators and prey. **Living things and their habitats** • recognise that living things can be grouped in a variety of ways • explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment • recognise that environments can change and that this can sometimes pose dangers to living things.	Dr Tom's - 'What goes in must come out' & 'Green plants - what would we do without them?' Desert island scenario, alien planet Eden Project trip University - dissection Visiting dentist / dental nurse Techniquest trip Skipping workshop Health related fitness
POSSIBLE OUTCOMES	**EVALUATION**
Build a model digestive system Giant human body for visitors to go through	

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BOURNVILLE PRIMARY SCHOOL SCIENCE SCHEME OF WORK MEDIUM TERM PLAN YEAR 3/4 TERMS 5/6 CYCLE B
PROJECT: *You Choose!*

NATIONAL CURRICULUM	SUGGESTED STARTING POINTS
POSSIBLE OUTCOMES	**EVALUATION**

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BOURNVILLE PRIMARY SCHOOL SCIENCE SCHEME OF WORK MEDIUM TERM PLAN YEAR 5/6 TERMS 1/2 CYCLE B
PROJECT: *Anglo Saxon England*

NATIONAL CURRICULUM	SUGGESTED STARTING POINTS
Living things and their habitats Pupils should be taught to: • describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals • give reasons for classifying plants and animals based on specific characteristics.	
POSSIBLE OUTCOMES	**EVALUATION**

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BOURNVILLE PRIMARY SCHOOL SCIENCE SCHEME OF WORK MEDIUM TERM PLAN YEAR 5/6 TERMS 3/4 CYCLE B

PROJECT: *Human Impact on Earth*

NATIONAL CURRICULUM	SUGGESTED STARTING POINTS
Evolution and inheritance Pupils should be taught to: 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 evolution. **Electricity** Pupils should be taught to: associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches use recognised symbols when representing a simple circuit in a diagram.	
POSSIBLE OUTCOMES	**EVALUATION**

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BOURNVILLE PRIMARY SCHOOL SCIENCE SCHEME OF WORK MEDIUM TERM PLAN YEAR 5/6 TERMS 5/6 CYCLE B
PROJECT: *A Journey Through Time*

NATIONAL CURRICULUM	SUGGESTED STARTING POINTS
Light Pupils should be taught to: • recognise that light appears to travel in straight lines • use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye • explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes • use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.	
POSSIBLE OUTCOMES	**EVALUATION**

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