YEAR 2 MEDIUM TERM PLAN SPRING 2

The Big Question: Why do we need to save our planet Earth?

Launch Assembly: Recycling Theme	WOW Day:

Foley 5: Care and Kindness ***Freedom*** and Friendship	Foley 5: Individuality Responsibility	Foley 5: Community ***Tolerance*** and Trust	Foley 5: Resilience Strength and weakness	Foley 5: Growth ***Respect*** and Sustainability	Foley 5: Care and Kindness ***Individual rights*** and Peace

Everything starts with a read!

Local Kinver – Help with the local 'Best Kept Village' competition!	**National** Litter and recycling in the UK – protecting our countryside and woodlands.	**International** Plastic pollution in the world's oceans.
History and Geography **Curriculum links** **Geography** name and locate the world's seven continents and five oceans key physical features, including: beach, cliff, coast, forest, hill, mountain, sea, ocean, river, soil, valley, vegetation, season and weather and key human features, including: city, town, village, factory, farm, house, office, port, harbour and shop Use simple fieldwork and observational skills to study the geography of their school and its grounds and the key human and physical features of its surrounding environment. **History** Learn about the lives of significant individuals in the past who have contributed to national and international achievements, some should be used to compare aspects of life in different periods	**New learning** Children will learn about the local glass industry and its history. They will also learn about local significant sites (Red House Glass Cone). Children will learn about how to care for our local environment (Kinver, Kinver Edge, Canals and River Stour). They will learn to locate the world's 7 continents and 5 oceans and explore how we can take care of our world as a whole. Children will explore the international issue of plastic pollution. **Key knowledge / facts:** During the late 17th century the glass cone was developed in Britain. These conical shaped buildings dominated the local landscape defining the area from Stourbridge to Dudley. The Red House Glass Cone was completed in 1794. The cone-shape glasshouse, which housed the furnace around which the glassmakers worked, first appeared in Britain towards the end of the 17th century. It was developed to perform a dual function. It was both a working space for the glassmakers, while at the same time it acted as a giant chimney for the glass furnace; drawing air through underground tunnels to enable the furnace to reach temperatures needed to melt the glass. In effect the glassmakers were working in a glorified chimney - dark, hot, smoky and noisy.	**Knowledge rich curriculum** **Building on prior knowledge:** The children will have learnt about the continents and oceans in year 1. **Skills required:** Basic map skills. An understanding of the meaning of pollution and how we can help prevent this. Placing events on a timeline. Using observational skills to identify physical and human features. **First hand experiences:** Visit to the Red House Glass Cone or have a representative from the industry visit school. Visit the local area looking at the human and physical features (Kinver village, Kinver Edge, Canals and the River Stour). Recycling in school and in the home. **Key language:**

·Find out about significant historical events, people and places in their own locality	The Red House Glass Cone is 100 feet high and 60 feet wide at its base. It is only one of four surviving glass cones in the UK, and of these is the best preserved. The other three are: Catcliffe, near Sheffield, built about 1840 and 60 feet high / Lemington, Newcastle-on-Tyne, built in 1789 and 120 feet high and Alloa, Scotland. The Red House Glass Cone operated for over 150 years. It was built in the period 1788-1794 on the Red House Site, as it was known when it was acquired by Richard Bradley. It was here that Frederick Stuart began his glassmaking career. The Stuart family eventually came to own this and the adjoining site. The Stuart family and their craftsmen continued to produce glass at the Red House until just prior to the Second World War when it proved necessary to relocate the glass-making process over the road. A particular claim to fame is that it is here that the Cameo glass revival began.	Glass cone, industry, time line, crystal, plastic, pollution, recycle.
Music **Curriculum links** - listen with concentration and understanding to a range of high-quality live and recorded music - experiment with, create, select and combine sounds using the inter-related dimensions of music.	**New learning** Children explore a variety of existing music that has been created using recycled materials e.g. bin lids from STOMP or The Blue Man Group. The children will learn about the groups, their history and the origin of the groups. STOMP London | Dustbin Lids - YouTube Holiday Songs on PVC Instrument - Blue Man Group Music - YouTube Blue Man Group Pipe Medley (with Crazy Train & Lady Gaga) - YouTube **Key knowledge / facts:** • How STOMP and The Blue Man Group produce the sounds – what things do they use and how do they make them produce the sounds? • That a range of everyday items can be used to produce music. **Key language:** Recycled/found/ordinary objects, percussion, Physical theatre, rhythms, acrobatics, pantomime	**Knowledge rich curriculum** **Building on prior knowledge:** The children have listened to music from other countries and learnt to share their responses to the music. They have added movement in response to the music. They have explore the sounds of a variety of percussion instruments and have used these to create their own music. They have used their own bodies to produce body percussion in Year One. **Skills required:** • Listen with concentration and understanding to music • Understand that things other than instruments can create music such as ordinary objects and the body. • Use 'found materials' to create sounds and combine these sounds to create their own music **First hand experiences:** • Videos of STOMP and The Blue Man Group. • Explore the sounds a range of ordinary objects can produce such as pans, bin lids, pipes.
Art / DT **Curriculum links** - **DESIGN** - Design purposeful, functional, appealing products for themselves and other users based on design criteria - generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology	**New learning** Through our exploration of the text 'Bin Goblins', children will explore the use of different materials (that would otherwise be thrown away) to create a hand puppet. Children will explore the functions of hand puppets as well as different materials. They will find out how different materials can be used most effectively and how they can be manipulated for a purpose. Children will design, make and evaluate their own puppet made from recyclable/reused materials.	**Knowledge rich curriculum** **Building on prior knowledge:** In EYFS and Year One children have used templates, designed products such as moving flower pictures to illustrate a nursery rhyme. They have learnt joining techniques such as sticking and tying. They have investigated a range of materials and used them for specific purposes e.g. printing fabric to create a mat. They have begun to analyse their designs and finished products and evaluate how well their finished products match the initial design criteria.

- **MAKE** - select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] - select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics - **EVALUATE** - explore and evaluate a range of existing products - evaluate their ideas and products against design criteria - **TECHNICAL KNOWLEDGE** - build structures, exploring how they can be made stronger, stiffer and more stable - Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.	**Key knowledge / facts:** • What puppets are – types of puppets? Marionettes – string puppets, hand puppets – slipped over the hand, rod puppets – activated from below with a slender wand, shadow puppets – glide behind a backlit screen and Bunraku puppets – manipulated in full view of the audience. • How puppets work – materials used and designs • Why puppets they are used –how they help bring stories, poems and facts to life. • Different materials that are used to create puppets and why. • Explore what is meant by 'recycled/reused materials' • Experiment to find which materials are best suited to the job. **Key language:** Puppet, marionettes, hand puppet, rod puppets, shadow puppets, Bunraku puppets. Recycle, reuse Manipulate, activate, audience, screen, glide, animate Design, create, evaluate, join, fix, sew, template, shape, mock-up, finished product, properties, suitability/suitable, requirements	**Skills required:** • Understanding how a hand puppet works • Design own hand puppet using their understanding of the function, form and materials needed. • Create mock-ups • Use templates • Cut fabric, card, paper • Join materials – gluing, sewing, using paper fasters • Create finished product • Evaluate their finished product against design criteria and adapt as necessary **First hand experiences:** • Explore the text – The Bin Goblins • A range of puppets to investigate their form and function • Videos showing various puppets in action in a variety of different ways • Different materials – investigate their properties and suitability to the puppet design and requirements
Science **Curriculum links** **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 different uses - find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching - **Working Scientifically** - asking simple questions and recognising that they can be answered in different ways - observing closely, using simple equipment	**New learning** Children will identify and compare the uses of everyday materials in and around the school as well as in other places (at home, the journey to school, on visits and in stories, rhymes and songs). (identifying and classifying) (observing closely, using simple equipment) They will find out if some materials can be used to make more than one thing or if some objects can be made from more than one material (for example plastic, metal spoons) (identifying and classifying) (observing closely, using simple equipment) Children will perform a simple test to distinguish between waterproof and absorbent materials in a quest to find out the best material to build a waterproof shelter for an animal. (performing simple tests) (gathering and recording data to help in answering questions)	**Knowledge rich curriculum** **Building on prior knowledge:** In Year One, children learnt that objects are things you can touch or see and are made from different materials. They learnt the names of different materials and explored the properties of materials through observation and touch. **Skills required:** • Comparing uses of materials for different objects • Investigating whether objects are always made from the same material or can be made from different materials • Testing materials to discover whether they are waterproof or absorbent • Investigate how some materials can be changes by bending, stretching, squashing and twisting. • Observe and consider why some materials are suitable and unsuitable for different uses

- perform simple tests - identifying and classifying - using their observations and ideas to suggest answers to questions - gathering and recording data to help in answering questions.	They will investigate how some objects can be changed by squashing, bending, twisting and stretching. They will use the terms flexible and rigid to categorise materials. (performing simple tests) (gathering and recording data to help in answering questions) Children will observe closely the uses of different materials and record their observations – considering why certain materials are suitable to make particular objects and why some materials are unsuitable. (observe closely, using simple equipment) (using their observations and ideas to suggest answers to questions) Children will find out and discuss which materials are recyclable and why. They will explore the processes involved in recycling. (asking simple questions and recognising that they can be answered in different ways) **Key knowledge / facts:** • Materials are used for different purposes based on their properties. Some materials are more suited to make objects than others. For example, glass is used to make windows because it is transparent. • Some objects are made from more than one material for different reasons. For example, Spoons are made from metal because it is waterproof and can be cleaned easily. Spoons are also made from plastic because plastic is light and it cannot hurt young children's growing teeth. • The shape of some materials can be changed when they are stretched, twisted, bent and squashed. Some materials are flexible, whilst others are rigid. • Some materials can be recycled whilst others cannot. Recycling is good for the environment.	• Find out which materials are recyclable and what happens in the recycling process. **First hand experiences:** • Identifying uses of materials in and around school. • Observing objects to investigate the material or materials it is made from. • Performing their own tests to identify absorbent and waterproof materials in order to make a waterproof shelter • Investigating the flexibility of materials in order to categorise them • Use observations and test results to discuss the suitability of different materials for objects. • Find out about and discuss recyclable materials. **Key language:** **Properties of materials:** absorbent, bendy, dull, man-made, natural, opaque, recyclable, rough, shiny, smooth, soft, stiff, transparent, waterproof **Materials:** brick, cardboard, elastic, fabric, foil, glass, metal, paper, plastic, rock, wood **Changing materials:** bend, flexible, rigid, squash, stretch, twist, **Scientific vocabulary:** classify, compare, discuss, find out, identify, materials, observe closely, process, properties, purpose, record, shape, suitable, unsuitable, uses
Computing **Curriculum links** - understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions - create and debug simple programs - use logical reasoning to predict the behaviour of simple programs	**New learning** Programming – Introduction to Quizzes Firstly, children will revisit their knowledge of instructions. They will consider the language they use and how that language needs to be clear and precise. Children will combine several instructions into a sequence that can then be issued to someone else to complete. We will relate this learning to computers and discuss how computers can only follow clear, unambiguous instructions.	**Knowledge rich curriculum** **Building on prior knowledge:** In Year One, children have explored the use of the directional buttons on the beebot to make it move. They have planned and inputted some simple instructions to make the beebot follow a route and have solved problems to get a beebot to a specified finishing point. **Skills required:** • Give verbal and written instructions (using symbols)

	Children will then focus on sequences of instructions to create algorithms for a beebot. They will plan, input and test their algorithms. They will then use the same commands in different orders and show the difference in outcome between these sequences. Next children will use their knowledge of algorithms to make predictions of an outcome. They will follow a program step by step and identify what the outcome will be. They will then input the algorithm to compare their prediction with the program outcome. Children will then design, create and test a mat for a floor robot using our topic for the half term as our inspiration. They will learn that design in programming isn't only code and algorithms but also other factors related to a project such as artwork and audio. Using the mats we designed and made last lesson, children will design algorithms to move their robot around the mats they have designed. They will identify starting and finishing points and a route. Children will then text their algorithms and debug (correct errors) where needed. Finally, children will apply all of their coding and programming knowledge to take on a larger programming task! They will need to break the task into chunks and create algorithms for each chunk. This process is known as 'decomposition' and is covered further in Key Stage 2. **Key knowledge / facts:** • Instructions always need to be clear and precise. We should never be unsure what to do when following instructions. Instructions for computers also need to be clear and precise. • A sequence of instructions in coding is called an algorithm. We need to plan our algorithms before inputting them and testing them. • If we spot errors in our algorithms, we need to change them to correct it. This is called debugging. • When creating a program, we need to design the code but also other aspects such as artwork or sounds • A program is a set of different algorithms in combination with other design aspects such as artwork.	• Follow verbal and written instructions (using symbols) • Plan, input and test algorithms to make a beebot follow a route • Use knowledge of algorithms to make predictions of an outcome • Design, create a test a mat for a beebot • Create their own program, involving more than one algorithm in conjunction with their own mat • Apply coding knowledge to a larger programming task. **First hand experiences:** • Giving and following verbal and written (using symbols) instructions • Planning, inputting and testing algorithms using bee bots and the bee bot app on the iPads • Make predictions of the outcome of algorithms • Design, create a test a mat for a bee bot based on our topic • Use the mats to design algorithms to make a simple program • Apply coding and programming knowledge to take on a larger programming task, breaking it into chunks and creating algorithms for each chunk **Key language:** algorithm, anti-clockwise, backwards, bee bot, clear, clockwise, code, coding, debug, design, direction, forwards, go, input, instructions, left, mat, plan, predict, program, right, route, sequence