



Year Group: 1/2

Cycle B

Half Term Learning Focuses **Design and Technology** Science Art and Design Seasonal change. Identify, name, Explore, design, build and evaluate bug Georgia O'Keefe and observational describe common plants and trees, hotels drawings of flowers growth of seeds and bulbs Climate/environment Geography Computing Importance of bees for pollination, Use simple fieldwork and observational Programming impact of climate change and human skills to study the geography of their development on bee populations school and its grounds and the key human and physical features of its surrounding environment Identify seasonal and daily weather patterns in the United Kingdom and the location of hot and cold areas of the world in relation to the Equator and the North and South Poles

	Science				
Na	National Curriculum (Knowledge and Skills): Pupils should be taught to:				
Ye	ear 1	Year 2			
a) b)	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 ask simple questions and recognise that they can be 			
c) observe changes across the four seasons d) observe and describe weather associated with the seasons and how day length varies		 answered in different ways observe closely, using simple equipment perform simple tests 			
 e) ask simple questions and recognise that they can be answered in different ways b) ask simple questions and recognise that they can be identify and classify 		 gather and record data to help in answering questions identify and classify use their observations and ideas to suggest answers to 			
J,	to questions				
	Suggested Investigations				
•	Observe and record the growth of plants as they change over time.	 Set up comparative tests to show what plants need to stay healthy. 			

Climate/Environment Focus

Children in Year 1 and 2 will also learn:

- The importance of bees for plant pollination and the impact of human activity on bee populations.
- https://ypte.org.uk/lesson-plans/bees (lesson plans and resources that can be adapted for KS1)
- https://www.stem.org.uk/resources/elibrary/resource/34396/save-our-bees (9) activities about bees including; identifying bees and bee pollinated plants, the factors which affect growth and decline in bee populations, making bee nests, a role-play about population decline and making bee puppets. Detailed background information about bees and their conservation is provided along with notes on running the activities and links to further resources.

Prior Learning

Forever Firs children working at ARE in Year 1 should already be able to:

Understanding the World ELG

(The Natural World ELG)

- Explore the natural world around them, making observations and drawing pictures of animals and plants
- Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class
- Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter
- Make observations of animals and plants and explain why some things occur, and talk about changes.

Forever Firs children working at ARE in Year 2 should already be able to:

- observe changes across the four seasons
- observe and describe weather associated with the seasons and how day length varies
- identify and name a variety of common wild and garden plants, including deciduous and evergreen trees
- identify and describe the basic structure of a variety of common flowering plants, including trees

They will also have had experience of the Key Stage 1 NC Science Objectives for Working Scientifically, however they will have further opportunity to develop and embed these skills.

		Key Vo	cabulary			
Ti	er 1	Ti	Tier 2		Tier 3	
Year 1	Year 2	Year 1	Year 2	Year 1	Year 2	
Tree	Seeds	Identify	Observe			
Plant	Grow	Describe	Describe	Deciduous		
Leaf	Plants	Common	Bulbs	Evergreen		
Weather	Water	Wild	Mature	Autumn		
Hot	Light	Structure	Temperature	Spring		
Cold	Dark	Stem	Healthy	Summer		
Sun	Soil	Petal	Seedling	Winter		
Snow	Seedling	Root				
Rain	Warm	Trunk				
Wind	Cool	Branch				
Cloud	Hot	Season				
Night	Cold	Sunrise				
Day		Sunset				
Garden 📐		Observe				
Change		Record				
Same		Predict				
Different		Compare				
		Test				

Primary - School -

Science Assessment				
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Geography

National Curriculum: Pupils should be taught about:

- 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
- identify seasonal and daily weather patterns in the United Kingdom and the location of hot and cold areas of the world in relation to the Equator and the North and South Poles

Age Related Subject Skills (Progression Guidance):

Year 1

Using maps

- Use a simple picture map to move around the school
- Use relative vocabulary such as bigger, smaller, like, dislike
- Use directional language such as near and far, up and down, left and right, forwards and backwards

Map knowledge

- Use world maps to identify the UK in its position in the world.
- Use maps to locate the four countries and capital cities of UK and its surrounding seas

Making maps

- Draw basic maps, including appropriate symbols and pictures to represent places or features
- Use photographs and maps to identify features

Year 2

Using maps

- Follow a route on a map
- Use simple compass directions (North, South, East, West)
- Use aerial photographs and plan perspectives to recognise landmarks and basic human and physical features

Map knowledge

- Locate and name on a world map and globe the seven continents and five oceans.
- Locate on a globe and world map the hot and cold areas of the world including the Equator and the North and South Poles

Making maps

- Draw or make a map of real or imaginary places (e.g. add detail to a sketch map from aerial photograph)
- Use and construct basic symbols in a key

Prior Learning

Forever Firs children in Year 1 working at ARE should already be able to:

Understanding the World ELG (People Culture and Communities ELG)

- Describe their immediate environment using knowledge from observation, discussion, stories, non-fiction texts and maps
- Explain some similarities and differences between life in this country and life in other countries, drawing on knowledge from stories, non-fiction texts and – when appropriate – maps

Forever Firs children in Year 2 working at ARE should already be able to:

• See year 1 progression statements above

Key Vocabulary				
Tier 1	Tier 2	Tier 3		
Hot	Observe	Human features		
Cold	Grounds	Physical features		
Warm	Human features	Autumn		
Sun	Physical features	Spring		
Snow	Seasons	Summer		
Rain	Temperature	Winter		
Wind		Equator		
Weather		North Pole		
World		South Pole		

Geography Assessment					
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Art and Design

National Curriculum: Pupils should be taught to:

- use drawing, painting and sculpture to develop and share their ideas, experiences and imagination
- develop a wide range of art and design techniques in using colour, pattern, texture, line, shape, form and space
- about the work of a range of artists, craft makers and designers, describing the differences and similarities between different practices and disciplines, and making links to their own work

Curriculum Intentions (Key Knowledge and Skills to be learned):

- Children will learn about the modernist work of Georgia O'Keeffe, with a focus on her close up, large scale paintings of flowers.
- They will compare her work to that of other artists who painted flowers in different styles, describing similarities and differences (e.g. *Amaryllis* by Piet Mondrian (1910) and *Still Life with Irises* by Vincent Van Gogh (1890))
- Children will develop their skills in painting, learning how to mix colour and paint accurately within the lines of their drawing.
- They will make observational sketches of flowers from close up (large scale)
- They will create a final painting of a flower, displaying the skills and knowledge they have learned, and compare their final picture with the work of Georgia O'Keeffe.

Age Related Subject Skills (Progression Guidance):

Year 1 Drawing

- Experiment with a variety of media; pencils, rubbers, crayons, pastels, felt tips, charcoal, pen, chalk.
- Begin to control the types of marks made with the range of media.
- Draw on different surfaces with a range of media.
- Develop a range of tone using a pencil and use a variety of drawing techniques such as: hatching, scribbling, stippling, and blending to create light/ dark lines.

Artist Knowledge

- Look at and talk about own work and that of other artists and the techniques they had used expressing their likes and dislikes.
- Explore the work of a range of artists, craft makers and designers, describing the differences and similarities between different practices and disciplines, and making links to their own work.

Developing Ideas (Sketchbooks)

 Start to record simple media explorations in a sketch book.

Year 2 Drawing

Continue to investigate tone by drawing light/dark lines, light/dark patterns, light/dark shapes using a pencil.

- Draw lines/marks from observations.
- Demonstrate control over the types of marks made with a range of media such as crayons, pastels, felt tips, charcoal, pen, chalk.
- Understand tone through the use of different grades of pencils (HB, 2B, 4B).

Artist Knowledge

- Continue to explore the work of a range of artists, craft makers and designers, making comparisons and describing the differences and similarities and making links to their own work.
- Express thoughts and feelings about a piece of art.
- Reflect and explain the successes and challenges in a piece of art created.
- Explain how a piece of art makes them feel link to emotions.
- Identify changes they might make or how their work could be developed further.

Developing Ideas (Sketchbooks)

- Use a sketchbook to plan and develop simple ideas.
- Use a sketchbook to plan and develop simple ideas
- Build information on colour mixing, the colour wheel and colour spectrums.
- Collect textures and patterns to inform other work.

Prior Learning

Forever Firs children in Year 1 working at ARE should already be able to:

Physical Development ELG (Fine Motor Skills ELG)

- Hold a pencil effectively in preparation for fluent writing – using the tripod grip in almost all cases
- Use a range of small tools, including scissors, paint brushes and cutlery
- Begin to show accuracy and care when drawing

Expressive Arts and Design ELG (Creating with Materials ELG)

- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function
- Share their creations, explaining the process they have used

Medium Specific Subject Progression Drawing

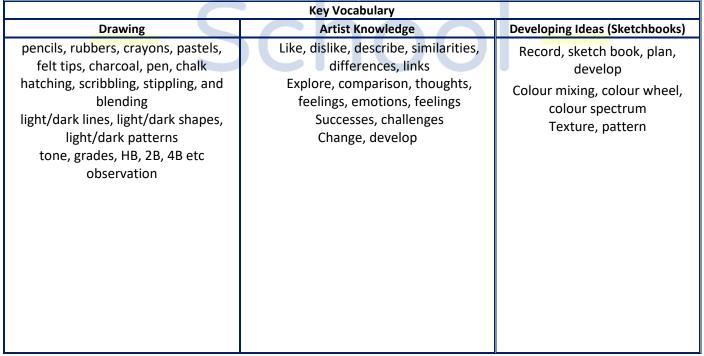
- Enjoy using graphic tools, fingers, hands, chalk, pens and pencils.
- Use and begin to control a range of media.
- Draw on different surfaces and coloured paper.
- Produce lines of different thickness and tone using a pencil.
- Start to produce different patterns and textures from observations, imagination and illustrations.

Artist Knowledge/ Developing Ideas

 Look and talk about what they have produced, describing simple techniques and media used.

Forever Firs children in Year 2 working at ARE should already be able to:

See Year 1 descriptors above



Design and Technology

National Curriculum: Pupils should be taught to:

- explore and evaluate a range of existing products
- evaluate their ideas and products against design criteria
- select from and use a range of tools and equipment to perform practical tasks [e.g. 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

Key Line of Enquiry:

Children will explore a range of commercially available bug hotels and use these to establish design criteria for their own bug hotel. They will collect a range of natural and recycled materials and use these to make their own, evaluating their final product against the design criteria.

(Ideas/teacher resources at https://kelbrookprimaryschool.uk/wp-content/uploads/2020/04/DT-Bug-hotel.pdf)

Age Related Subject Skills (Progression Guidance):

Design

- State the purpose of the design and the intended user
- Explore materials, make templates and mock ups
 e.g. moving picture / lighthouse
- Generate own ideas for design by drawing on own experiences or from reading

 Make
- Select from a range of tools and equipment explaining their choices
- Select from a range of materials and components according to their characteristics
- Follow procedures for safety
- Use and make own templates
- Measure, mark out, cut out and shape materials and components
- Assemble, join and combine materials and components Use simple fixing materials e.g. temporary paper clips, tape
 and permanent glue, staples
- Use finishing techniques, including those from art and design

Evaluate

- Talk about their design ideas and what they are making
- Make simple judgements about their products and ideas against design criteria
- Suggest how their products could be improved, evaluating products and components used
- Investigate what products are, who they are for, how they are made and what materials are used
- Understand how freestanding structures can be made stronger, stiffer and more stable
 Technical Knowledge
- Understand how freestanding structures can be made stronger, stiffer and more stable

Prior Learning

Forever Firs children in Year 1 working at ARE should already be able to:

Physical Development ELG (Fine Motor Skills ELG)

- Hold a pencil effectively in preparation for fluent writing using the tripod grip in almost all cases
- Use a range of small tools, including scissors, paint brushes and cutlery
- Begin to show accuracy and care when drawing.

Expressive Arts and Design ELG (Creating with Materials ELG)

- Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function
- Share their creations, explaining the process they have used

Forever Firs children in Year 2 working at ARE should already be able to:

• Apply some of the skills set out in the progression guidance for Key Stage 1 (above).

They will have further opportunity to develop and embed these skills during this unit of work.

Key Vocabulary				
Tier 1	Tier 2	Tier 3		

	design	
join	evaluate	
build	natural	
stick	recycled	
cut	materials	
glue	characteristics	
tape		
plastic		
wood		
sticks		
stones		
leaves		



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Computing

National Curriculum:

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

Computing Strand: Programming

Topic Links: To use an on screen turtle to move and draw shapes

Age Related Subject Skills (Progression Guidance - DDAT):

- Pupils learn to program a basic floor turtle such as a BeeBot to navigate increasingly complex routes and are able to debug their instructions when the turtle does not reach the intended destination
- Pupils learn to program an onscreen app such as BeeBot or Kodable to complete a set task and are able to debug their instructions when the turtle does not reach the intended destination
- Pupils use a more complex turtle with standard units to navigate increasingly complex routes, and are able to debug their instructions when the turtle does not reach the intended destination

Key Stage 1

- Explore an on screen turtle (or Bee BOT) navigate it around a course or grid
- While navigating around a course on a computer predict what will happen once the next command is entered.
- Know that devices and actions on screen may be controlled by sequences of actions and instructions
- Create a sequence of instructions to create a rightangled shape on screen

Other Key Areas of Learning:

- Key online resource (online Beebot programme): https://scratch.mit.edu/projects/19685257/
- To apply knowledge from their Year 1 maths learning in their programming (describe position, directions and movements, including half, quarter and three-quarter turns)
- To create the shortest (most efficient) script possible to reach the end target
- To identify 'bugs' in their program, and explain why their script has not worked

Prior Learning

Forever Firs children working at ARE should already be able to:

- (40-60 Months)
 - Complete a simple program on a computer.
 - Uses ICT hardware to interact with age-appropriate computer software.

(Early Learning Goal)

- Recognise that a range of technology is used in places such as homes and schools.
- Select and use technology for particular purposes.

Tie	Tier 2	
Left	Instructions	Algorithms
Right	Reasoning	Program

Tier 1 Tier 3 **Forwards Backwards** Predict Sprite Turn Half Directions Beebot Position Quarter App Clockwise Debug Anti-clockwise Script

Key Vocabulary

Computing Assessment				
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