

# Heather Garth Primary Academy

## **Year 4 Programme of Study**

### **2023-2024**



Heather Garth  
Primary Academy  
Stars Aiming High

## Reading

At Heather Garth, we teach reading through a whole class novel-based approach as well as through small group guided reading. Each class is also immersed in high quality, age-appropriate texts through daily story time.

In Year 4, the texts we study include:

The Borrowers by Mary Norton

Romans on the Rampage- Jail Break by Jeremy Strong

The Firework-Maker's Daughter by Philip Pullman

Why the Whales Came by Michael Morpurgo

The Store Full of Magical Things by Rutendo Tavengerwei

The River by Valerie Bloom

## Writing

At Heather Garth, we teach writing using the Jane Considine Write Stuff approach. The approach provides the children with a stimulating and language rich writing environment surrounded by print in a variety of forms and contexts. Jane Considine units are based around high quality, age-appropriate texts. Units teach a full range of writing strategies, including spelling, grammar, sentence structure and composition. For more details of the elements taught, please make reference to the year group termly overviews on the writing area of the school website.

Children then apply all the taught and modelled skills to independent writing tasks. Following independent writing, children are encouraged to find and correct errors, using their purple "polishing pens" to make their amendments.

The units we cover in Year 4 are:

Narrative (Adventure) – Charlie and the Chocolate Factory by Roald Dahl

Non-Fiction (Newspaper Report) – The Creature

Narrative (Traditional Tale) – Aladdin and the Enchanted Lamp by Philip Pullman

Poetry – Still I Rise by Maya Angelou

Non-Fiction (Persuasive Advert) – An Alternative to Plastic Straws – The Stroodle

Narrative (Adventure) – Journey by Aaron Becker

Non-Fiction (Script) – Once Upon a Raindrop by James Carter

We also use Spelling Shed to teach spelling. Children can also access this at home so they can practise throughout the week.

## Mathematics

In Year 4, the math's units we cover are:

### Number: Place Value

Count in multiples of 6, 7, 9, 25 and 1000.

Find 1000 more or less than a given number.

Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens and ones).

Compose and decompose 4-digit numbers using standard and non-standard partitioning.

Order and compare numbers beyond 1000.

Identify, represent and estimate numbers using different representations.

Round any number to the nearest 10, 100 or 1000.

Solve number and practical problems that involve all of the above and with increasingly large positive numbers.

Count backwards through zero to include negative numbers.

Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value.

Know that 10 hundreds are equivalent to 1 thousand, and that 1,000 is 10 times the size.

Divide 1,000 into 2, 4, 5 and 10 equal parts, read scales/number lines marked in multiples of 1,000 with 2, 4, 5 and 10 equal parts.

### **Number - Addition and subtraction**

Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.

Estimate and use inverse operations to check answers to a calculation.

Solve addition and subtraction two step problems in contexts, deciding which operations and methods to use and why.

### **Number - Multiplication and division**

Recall and use multiplication and division facts for multiplication tables up to  $12 \times 12$ .

Count in multiples of 6, 7, 9, 25 and 1000

Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.

Solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one digit, integer scaling problems and harder correspondence problems such as  $n$  objects are connected to  $m$  objects.

Recognise and use factor pairs and commutativity in mental calculations.

Multiply two digit and three-digit numbers by a one-digit number using formal written layout.

Solve division problems, with 2-digit dividends and 1-digit divisors, that involve remainders.

Multiply and divide whole numbers by 10 and 100.

Apply the commutative property of multiplication.

### **Decimals**

Recognise and write decimal equivalents of any number of tenths or hundredths.

Find the effect of dividing a one or two-digit number by 10 or 100, identifying the value of the digits in the answer as ones, tenths and hundredths

Solve simple measure and money problems involving fractions and decimals to two decimal places.

Convert between different units of measure [for example, kilometre to metre]

Compare numbers with the same number of decimal places up to two decimal places.

Round decimals with one decimal place to the nearest whole number.

Recognise and write decimal equivalents  $\frac{1}{4}$ ,  $\frac{1}{2}$  and  $\frac{3}{4}$

### **Fractions**

Recognise and show, using diagrams, families of common equivalent fractions.

Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.

Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.

Add and subtract fractions with the same denominator.

Reason about the location of mixed numbers in the linear number system.

Convert mixed numbers to improper fractions and vice versa.

Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers.

### **Geometry- Position and Direction**

Describe positions on a 2-D grid as coordinates in the first quadrant.

Plot specified points and draw sides to complete a given polygon.

Describe movements between positions as translations of a given unit to the left/ right and up/ down.

Draw polygons, specified by co-ordinates in the first quadrant, and translate within the first quadrant.

### **Geometry: Properties of Shapes**

Identify acute and obtuse angles and compare and order angles up to two right angles by size.

Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.

Identify lines of symmetry in 2-D shapes presented in different orientations.

Complete a simple symmetric figure with respect to a specific line of symmetry.

Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. Find the perimeter of regular and irregular polygons.

### **Statistics**

Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.

Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.

### **Measurement: Area**

Find the area of rectilinear shapes by counting squares.

### **Measurement: Length and Perimeter**

Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.

Convert between different units of measure [for example, kilometre to metre].

### **Measurement: Money**

Estimate, compare and calculate different measures, including money in pounds and pence.

Solve simple measure and money problems involving fractions and decimals to two decimal places.

### **Time**

Convert between different units of measure [for example, kilometre to metre; hour to minute].

Read, write and convert time between analogue and digital 12- and 24-hour clocks.

Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.

## **Art and Design**

In art and design, Year 4 will focus on: drawing, painting and mixed media and sculpture and 3-D.

In drawing, we will be creating a mixed media drawing. The children will draw using tone to create a 3D effect, explore proportion and tone and plan a composition for a mixed media drawing. They will use shading techniques to create pattern and contrast, to create mixed media drawings.

In painting and mixed, we will be creating a still life painting. The children will investigate different ways of applying paint, mix tints and shades of colour to give a three-dimensional effect when painting. They will consider proportion and composition when planning a still-life painting and use their knowledge of colour mixing and painting techniques to create a finished piece.

In sculpture and 3-D, we will be creating a 3D sculpture using recycled items. The children will explore the way different materials can be shaped and joined. They will use more complex techniques to shape materials and explore how shapes can be formed and joined in wire. They will choose and join a variety of materials creating their own sculptures.

## **Citizenship**

In citizenship, Year 6 will cover four units: VIP's, Teams, Diverse Britain and Well-being - Think positive, delivered by our Learning Mentor Mrs LeMasurier.

In the VIP unit, the children will focus on relationships we have with our VIPs. It will look at friendships, how friendships are formed and maintained, and the qualities of a good friend. The lessons will then move on to disputes and bullying and will address strategies for coping with each of these.

In the Teams unit, we explore the idea that Together Everyone Achieves More. This theme is inspired by the idea that if a class team works well together, it has a positive impact on all of its members and what they can achieve. It aims to enable the children to identify the impact their actions have on the team they are working in. The children learn about successful teamwork skills, being considerate of others in the team and how to positively resolve any conflicts that occur. They will also learn about their individual responsibilities towards teams they work in and how new starts, such as starting a new school year, may feel and how they can support each other in this.

The Diverse Britain unit, is inspired by the idea that we live in a diverse, multicultural and democratic society and that this is important and brings many benefits. It aims to enable the children to identify that they should be respectful of difference. The children learn about British people, rules, the law, liberty and what living in a democracy means. They also learn about the importance of being tolerant of differences within their society.

The Well-being -Think positive unit is designed to build on what the children have already learnt about feelings, both comfortable and uncomfortable and how our attitude towards life can affect our mental health. The lessons centre around themes such as thinking positively and calmly, managing difficult emotions, taking responsibility for decisions and developing a growth mindset approach to learning.

## **Computing**

In computing, Year 4 will cover six units: computing systems and networks, programming, creating media, skills showcase, data handling and a second programming unit, further developing their knowledge and skills.

In computing systems and networks, the children will learn how to work collaboratively and explore a range of collaborative tools.

In programming, the children will revisit the key features of programming and begin to use 'variables' in code scripts. In the second unit of programming, the children will solve problems effectively using the four areas of abstraction, algorithm design, decomposition and pattern recognition.

In creating media, the children will learn how web pages and sites are created and how to embed media and links.

In the skills showcase unit, the children will learn about the markup language behind a webpage; become familiar with HTML tags, changing HTML and CSS code to alter images and 'remix' a live website.

In data handling, the children will research and store data on spreadsheets, which create graphs and flow charts.

## **Design and Technology**

In design and technology, Year 4 will focus on: electrical systems, food technology and textiles.

In electrical systems, the children will design and make a Doodler. They will identify and look at a range of products that make use of a motor. They will then investigate an existing product (the Doodler), working out how the product has been constructed, ready to develop their own. They will then write a design criteria based on the knowledge learned from the investigation and develop a new Doodler design and then construct it.

In food technology, the children will make biscuits. They will continue to develop their cooking skills. They will follow a simple biscuit recipe before they experiment with adapting the recipe by adding different ingredients to see which they prefer. The children will then decide on the ingredients for their final biscuit recipe.

In textiles, the children will continue to develop their textile skills creating a cushion. They will follow a design criteria, select and cut fabrics using fabric scissors, thread needles and tie knots with greater independence. They will learn how to join fabric using cross stitch and will decorate their cushion applique.

## **Geography**

In geography, Year 4 will cover three units: Europe – Italy focus, Mountains – The Alps and Water World.

In the Europe – Italy focus unit, the children will learn about the continent of Europe. Using maps and atlases, the children will explore the vast and varied continent and learn about its countries and capital cities. The focus will then shift to Italy where they will learn about its physical and human features. They will look at famous Italian cities and landmarks as well as learning about what it is like to live in different regions of Italy.

In the Mountains – The Alps unit, the children will learn about the features of a mountain and how they are formed. They will learn what a mountain climate is. They will also develop their locational knowledge by learning where mountains are found in the UK and around the world. The children will also develop their map reading skills by understanding what contour lines tell us. They will also

consider why so many tourists visit The Alps and what impact this has.

In the Water World unit, the children will learn about different water bodies and the differences between them. They will find out about the water cycle and why it is an important process for our planet. The children will learn how water access around the world can differ and the impact this has on people's lives. They will visit a water treatment facility and learn how water comes into our home. The children will focus on sustainability and how water needs to be conserved as well as how it can be used for power to contribute towards a sustainable future.

## History

In history, Year 4 will cover three units: the Romans, the Anglo-Saxons and Scots and the Vikings.

In the Roman unit, we will be learning about how the Roman invasion changed Britain. We will learn how and why the Romans invaded Britain and why the native Britains reacted to the invasion and why. We will learn who was living in Britain at the same that the Romans invaded and who Boudica was. By the end of the unit, we will understand what the Roman's legacy was.

In the Anglo-Saxons and Scots unit, we will be learning about what happened to Britain after the Romans left. We will find out who the Anglo-Saxons were and how they settled in Britain. We will contrast them to the Roman invaders by examining similarities in their motivations for invasion and differences in how they built society. We will examine their settlements and discover what life was like in Anglo-Saxon Britain. How did they live? How did they make a difference to our lives today?

In the Viking, we will learn what happened after the departure of the Romans and we will study the Viking and Anglo-Saxon struggle for the Kingdom of England. We will learn who the Vikings were and why they invaded Britain. We will look at where the first Viking invasions took place. We will know who King Alfred the Great was and we will learn about his achievements. By the end of the unit, we will have studied the events surrounding the death of King Edward in 1066 and how this led to the Battle of Hastings and the Norman Conquest.

## Modern Foreign Language

In Spanish, Year 4 will cover three units: ¿Tienes una mascota? Do you have a pet?, En la cafeteria - At the Café and Mi casa - My Home.

The ¿Tienes una mascota? Do you have a pet? unit builds upon the theme 'Myself'. By the end of this unit the children will have the knowledge and skills to present both orally and in written form about the pets they have and/or do not have in Spanish. They will move from 1<sup>st</sup> person singular to 3<sup>rd</sup> person singular verb usage so they are able to say what the pet is called and use conjunctions more confidently.

En la cafeteria - At the Café, by the end of this unit the children will have the knowledge and skills necessary to perform a short role-play in a Spanish cafetería. This is a unit that consolidates much of the grammar covered in our Early Language teaching type (nouns, gender, determiners and plurality) so that pupils can say and write what they are ordering to eat and/or drink using a wider range of vocabulary alongside very useful transactional language for the world around them.

Mi casa - My Home , by the end of this unit the children will have the knowledge and skills to present both orally and in written form about where they live and which rooms they have and do not have in

their homes in Spanish. This is a unit that focuses on recycling previously learnt grammar, using it with new vocabulary, conjunctions and grammar, demonstrating a growing ability to create independent responses. This unit continues to build upon the theme 'Myself' and 'The World Around Me' as pupils orally present and write where they live and what their homes look like.

## **Music**

In Music, Year 4 will cover three units: Playing with Rhythm, Musical Contrasts and Melody Builders.

In the playing with rhythm unit, the children will develop their knowledge of rhythmic notation and use movement to express these concepts. They will have fun exploring songs and will learn how music can be built by combining layers of rhythm. The children will develop their ensemble skills and compose their own music.

In the musical contrast's unit, the children will begin with songs and activities which explore different instrumental timbres, the children will learn how instruments can be grouped and classified in different ways. They will listen to music, compare instrumental timbre and also learn to identify changes in tonality. The children will learn to lead and follow musical instructions and understand the importance of keeping an eye on the conductor!

In the melody builder's unit, the children will describe and internalize pitch. They will sing aloud, learn to use their 'thinking voice', exploring games and songs. The children will develop their composition and improvisation skills as they learn to create simple melodies using a given range of notes. Children will compose and notate melodies using graphic and letter notation. They will identify how melodies can be organized in different ways, exploring cumulative structure in songs. Using song structure as inspiration, the term ends with an opportunity to compose lyrics and create simple musical arrangements, preparing them for performance.

## **Physical Education**

In physical education we will cover a number of areas throughout the year including: fundamental skills, invasion games (dodgeball, tag rugby and football), gymnastics, dance, swimming, athletics, outdoor adventurous activities, striking and fielding (cricket) and net and wall games.

Children have two PE sessions per week, including one delivered by the class team and one delivered by our sports provider Grassroots.

## **Religious Education**

In religious education, Year 4 learn about both the Christian and Hindu faiths.

For each religion we learn about sacred texts, places of worship, beliefs and traditions, festivals and families, significant people of faith as well as exploring how the children and others feel about life and universe around them. Children then compare and contrast, recognising similarities and differences of each faith.

## Science

In science, Year 4 will cover five units: animals including humans, states of matter, living things and their habitats, sound and electricity.

In the animals including humans unit, the children will learn about the simple functions of the basic parts of the digestive system in humans. They will identify the different types of teeth in humans and their simple functions. Children will also construct and interpret a variety of food chains, identifying producers, predators and prey.

In the states of matter unit, the children will build on their knowledge of properties of materials as they learn about states of matter. The children will compare and group materials together, according to whether they are solids, liquids or gases. They will learn 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).

In the living things and their habitats unit, the children will build upon their prior knowledge of plants as they identify and name a variety of living things in their local and wider environment. The children will group living things and begin to use classification keys for flowers (flowering and nonflowering). They will classify animals into warm blooded and cold-blooded, vertebrates and invertebrates. The children will also learn that environments can change and that this can sometimes pose dangers to living things. The knowledge of plants acquired in this unit will help the children to construct and interpret a variety of food chains, identifying producers, predators and prey.

In the sound unit, the children will identify how sounds are made and recognise that vibrations from sounds travel through a medium to the ear. Learning includes the anatomy of the ear and how whales communicate via Whale Song. The knowledge of sound acquired in this unit will help the children find patterns between the pitch of a sound and features of the object that produced it. It will also help the children to find patterns between the volume of a sound and the strength of the vibrations that produced it. The children will know that sounds get fainter as the distance from the sound source increases.

In the electricity unit, the children will identify common appliances that run on electricity and construct a simple series electrical circuit, identifying and naming its basic parts. Children will investigate 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. They will recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit. The children will also recognise some common conductors and insulators, and associate metals with being good conductors.

## Enrichment Activities

Throughout the year, Year 4 take part in a number of enrichment activities. These include educational visits, visitors into school and after school clubs.

Educational visit:  
Ewden Water Treatment Centre

Educational visitor to school:  
History to Life days: covering the Romans and the Vikings.

Year 4 have access to a range of after school activities. These can be found on the school website.

