

RGS Junior School
Year 4
Programmes of Study
2019-2020



“One School, One Team.”

Year 4 Programmes of Study

Welcome to Year 4. We know that the children are always excited about moving into Year 4 and we aim to make it a memorable year. Throughout the year there will be a variety of trips linked to our history and geography projects, including an overnight trip to Patterdale. Students will also take part in a residential trip to introduce them to the joys and challenges of outdoor education. In a typical year, they will undertake a couple of extended projects too.



Below you will find some guidance as to the work which will be covered over the course of Year 4. As you would imagine, we are always keen to take advantage of opportunities that may present themselves at different times during the year which will further enhance learning within the year group, and ***this means that there may be some changes to the plans below.***

Year 4 English			
	Autumn Term	Spring Term	Summer Term
Writing	Retelling a story (salient points); Factual writing – news; Descriptive writing; Story writing (emphasis: plan, draft, revise, present); Story structure; Story beginnings (setting scene, intro character, speech); Writing for specific audience (report writing – project work); Poetry writing (inc: Kennings, Haikus); Writing in response to a variety of stimuli.	Serial story; Letters (thank-you; formal, informal endings); Writing in response to variety of stimuli; Empathy – writing from 2 different viewpoints; Descriptive writing; Story writing (emphasis: plan, draft, revise, present); Story beginnings (setting scene, intro character, speech).	Serial story; Explanatory texts; Writing in response to variety of stimuli; Descriptive writing; Story writing (emphasis: plan, draft, revise, present); Story beginnings (setting scene, intro character, speech); Play scripts; Debate.
Grammar & Language	Capital letters (starting sentences, names, first word line of poetry, first word spoken); Full-stops; Verbs (recognition, verb webs); Adjectival phrases (using & recognising); Adverbs; Sequencing connectives.	Questions, statements, exclamations; Overused words; Commas in lists; Nouns (proper – recognition); Refining the use of speech marks; Contractions; Reversing phrases to make interesting sentence starts; Sentence starters; Conjunctions.	Prepositions; Words instead of said; Prefixes & suffixes; Tenses; Paragraphs; Homophones; Speech; commas to mark clauses; Apostrophes to mark possession.
Comprehension	Teacher produced worksheets; Work from selected comprehension text books.		
Reading	Independent reading of fiction, non-fiction & poetry books; Group reading including reading aloud from a variety of different class reading books; Reading for meaning & understanding.		

Year 4 Maths		
Autumn Term	Spring Term	Summer Term
<p>Autumn 1</p> <p>Finding pairs with a total of 100; adding to the next multiple of 100 and subtracting to the previous multiple of 100; subtract by counting up to find a difference; adding several numbers</p> <p>Read, write 4-digit numbers and know what each digit represents; compare 4-digit numbers using $<$ and $>$ and place on a number line; add 2-digit numbers mentally; subtract 2-digit and 3-digit numbers</p> <p>Learn \times and \div facts for the 6 and 9 times-table and identify patterns; multiply multiples of 10 by single-digit numbers; multiply 2-digit numbers by single-digit numbers (the grid method); find fractions of amounts</p> <p>Tell and write the time to the minute on analogue and digital clocks; calculate time intervals; measure in metres, centimetres and millimetres; convert lengths between units; record using decimal notation</p> <p>Add two 3-digit numbers using column addition; subtract a 3-digit number from a 3-digit number using an expanded column method (decomposing only in one column)</p>	<p>Spring 1</p> <p>Place 4-digit numbers on landmarked lines; 0–10 000 and 1000–2000; round 4-digit numbers to the nearest 10, 100 and 1000; mentally add and subtract to/from 4-digit and 3-digit numbers using place-value; count on and back in multiples of 10, 100 and 1000; count on in multiples of 25 and 50; add and subtract multiples of 10 and 100 to/from 4-digit numbers</p> <p>Use expanded written subtraction and compact written subtraction to subtract pairs of 3-digit numbers (one ‘exchange’); use expanded column subtraction and compact column subtraction to subtract pairs of 3-digit and 2-digit numbers from 3-digit numbers (one ‘carry’); learn the $7\times$ table and ‘tricky’ facts; use the vertical algorithm to multiply 3-digit numbers by 1-digit numbers; solve simple money problems with decimals to two decimal places</p> <p>Use mental multiplication and division strategies; find non-unit fractions of 2-digit and 3-digit numbers; find equivalent fractions and use them to simplify fractions (halves, thirds, quarters)</p> <p>Recognise and compare acute, right and obtuse angles; draw lines of a given length; identify perpendicular and parallel lines; recognise and draw line symmetry in shapes; sort 2D shapes according to their properties; draw shapes with given properties and explain reasoning; draw the other half of symmetrical shapes</p> <p>Understand how to divide 2-digit and 3-digit numbers by 1-digit numbers using place value and mental strategies; divide numbers by 1-digit numbers to give answers between 10 and 25, with remainders; identify factor pairs and use these to solve multiplications and divisions with larger numbers; use Frog to find complements to multiples of 1000; use Frog to find change from £10, £20 and £50</p>	<p>Summer 1</p> <p>Read, write and compare 4-digit numbers and place on a line; find 1000 more or less than any given number; read, write and compare 5-digit numbers; recognise what each digit represents in a 5-digit number; read, use and compare negative numbers in the context of temperature</p> <p>Multiply and divide numbers by 10 and 100 including decimals (tenths and hundredths); read and write decimals (to 1 and 2 places), understanding that these represent parts (tenths and hundredths) of numbers; mark 1- and 2- place decimals on a line; count in tenths (0.1s) and hundredths (0.01s); multiply numbers with up to 2 decimal places by 10 and 100, and divide numbers by 10 and 100; say the number one tenth and one hundredth more or less than a given number; round decimal numbers to the nearest whole number</p> <p>Learn 11 and $12\times$ tables; develop and use effective mental multiplication strategies; use a vertical written method to multiply 3-digit numbers by 1-digit numbers; use rounding to estimate answers; use a written method to multiply 3-digit numbers, including amounts of money by 1-digit numbers; multiply 2-digit and 3-digit numbers by 1-digit numbers; understand how division ‘undoes’ multiplication and vice versa; divide above the tables facts using multiples of 10</p> <p>Recognise and write Roman numerals to 100; begin to know the history of our number system including 0; calculate area and perimeter of rectilinear shapes using multiplication and addition, or counting; recognise, name and classify 2D shapes identifying regular and irregular polygons; sort 2D shapes according to properties including types of quadrilaterals and triangles; revise 3D shapes, consider 2D-shaped sides on 3D shapes, and sort shapes</p> <p>Understand, read and write 2-place decimals; compare 2-place decimals in the context of lengths; add and subtract 0.1 and 0.01 and say a number one-tenth (0.1) or one-hundredth (0.01) more or less than a given number; revise equivalent fractions; write fractions with different denominators with a total of 1; recognise decimal and fraction equivalents</p>

<u>Autumn 2</u>	<u>Spring 2</u>	<u>Summer 2</u>
<p>Double 3-digit numbers and halve even 3-digit numbers; revise unit fractions; identify equivalent fractions; reduce a fraction to its simplest form; count in fractions (each fraction in its simplest form)</p> <p>Look at place value in decimals and the relationship between tenths and decimals; add two 4-digit numbers; practise written and mental addition methods; use vertical addition to investigate patterns</p> <p>Convert multiples of 100 g into kilograms; convert multiples of 100 ml into litres; read scales to the nearest 100 ml; estimate capacities; draw bar charts, record and interpret information</p> <p>Round 4-digit numbers to the nearest: 10, 100 and 1000; subtract 3-digit numbers using the expanded written version and the counting up mental strategy and decide which to use</p> <p>Use the grid method to multiply 3-digit by single-digit numbers and introduce the vertical algorithm; begin to estimate products; divide numbers (up to 2 digits) by single-digit numbers with no remainder, then with a remainder</p>	<p>Recognise, use, compare and order decimal numbers; understand place value in decimal numbers; recognise that decimals are tenths; round decimal numbers to the nearest whole number; divide 2-digit numbers by 10 to get decimal numbers; multiply decimal numbers by 10 to get 2-digit numbers; divide 3-digit multiples of ten by 100 to get decimal numbers; multiply decimal numbers by 100 to get 3-digit multiples of ten; add four digit numbers using written method with answers greater than 10 000</p> <p>Add amounts of money using written methods and mentally using place value and number facts; choose to add using the appropriate strategy: mental or written; subtract, choosing appropriate mental strategies: counting up or taking away (using counting back, place value or number facts); solve subtractions using a suitable written method (column subtraction)</p> <p>Tell the time on a 24 hour clock, using am and pm correctly; convert pm times to 24 hour clock and vice versa; use 24 hour clock in calculating intervals of time; measure and calculate perimeters of rectilinear shapes where each side is labelled in cm and m; find missing lengths in rectilinear composite shapes; find the perimeters of rectilinear shapes with some lengths not marked; convert from one unit of length to another; solve word problems involving lengths including those involving perimeters</p> <p>Understand place value in 4-digit numbers; partition 4-digit numbers; solve subtraction of 4-digit numbers using column subtraction (decomposition); choose an appropriate method to solve subtractions, either mental or written, and either column or counting up (Frog)</p> <p>Use the vertical algorithm to multiply 3-digit numbers by 1-digit numbers; explore patterns; use mental strategies and tables facts to divide 2-digit and 3-digit numbers by 1-digit numbers to give answers between 10 and 35, without remainders; solve word problems</p>	<p>Add two 2-digit numbers or a 2-digit number to a 3- or 4-digit number mentally; subtract 2-, 3- and 4-digit numbers using counting up; derive factors of 2-digit numbers and use factors and doubling to solve multiplication mentally; solve integer scaling problems using mental strategies and spot a relationship between products; solve correspondence problems, using a systematic approach and calculate using mental multiplication strategies</p> <p>Solve written addition of two 4-digit numbers; add amounts of money (pounds and pence) using column addition; solve 4-digit minus 4-digit and 4-digit minus 3-digit subtractions using written column method (decomposition) and check subtraction with addition; solve word problems choosing an appropriate method</p> <p>Use coordinates to draw polygons; find the coordinates of shapes after translation; draw and interpret bar charts and pictograms; draw line graphs and understand that intermediate points have meaning</p> <p>Use the vertical algorithm (ladder) to multiply 3-digit numbers by 1-digit numbers; find non-unit fraction of amounts, using 'chunking'; add fractions with like denominators, including totals greater than 1; divide by 10 and 100 (to give answers with 1 and 2 decimal places)</p> <p>Multiply 2-digit numbers by 11 and 12; look for patterns and write rules; multiply 2-digit numbers by numbers between 10 and 20 using the grid method; begin to use the grid method to multiply pairs of 2-digit numbers; use mental strategies and tables facts to divide 2-digit and 3-digit numbers by 1-digit numbers to give answers between 20 and 50, with and without remainders; find non-unit fractions of amounts</p>

Year 4 Science		
Autumn Term	Spring Term	Summer Term
<p>Moving and growing Characteristics of bones as materials; identifying bones; the human skeleton – naming bones, looking at x-rays; functions of the skeleton – movement, protection, support; different types of joint in the human skeleton; vertebrates & invertebrates; growth – which bones grow the most/least; body measurements – e.g. height, head circumference, forearm length – comparing and graphing data.</p> <p>Circuits and conductors Simple circuits, names of components, using symbols to represent components in circuit diagrams, drawing circuit diagrams, looking for mistakes in circuits; how a bulb works – the filament; switches in circuits – constructing switches; mains & battery electricity, safety with electricity; matching components in a circuit; conductors and insulators of electricity.</p>	<p>Keeping warm Measuring temperature, using a Celsius thermometer, reading scales on different types of thermometer; predicting temperatures; measuring temperatures in the classroom, temperatures on weather maps; how to keep cold things cold; how to keep hot things hot; conductors and insulators of heat.</p> <p>Habitats Identifying similarities and differences between living things, vertebrates and invertebrates, using simple keys to identify plants and animals – branching keys, statement keys; habitats – what conditions do organisms prefer?; minibeads; food chains; the effect of changing a habitat.</p>	<p>Friction Review forces – pushes and pulls, magnets; using forcemeters to measure force, units of measurement for force – newtons (N); friction as a stopping force – investigating the effect of different surfaces of friction, fair testing, representing and comparing data; examples of high and low friction, air resistance – investigating the effect of surface area on air resistance; water resistance – streamlining.</p> <p>Solids, liquids and how they can be separated Ideas about solids and liquids; the properties of solids and liquids (do they flow, can they be squashed, their volume & shape); accurate measurement of volume of a liquid; melting and freezing – wax and ice; melting metals; separating materials – sieving, filtering; dissolving</p>

Year 4 Computing		
Autumn Term	Spring Term	Summer Term
<p>Rules of Responsible use of Computers, iPad and the Internet. Quick recap on how to send emails and reminders how to use Office 365. Word processing</p> <p>Networks -Understand that servers on the internet are located across the planet. -Understand how email is sent across the Internet -Understand how the Internet enables us to collaborate.</p> <p>Comic Creators -Plan a class comic. -Create a class comic, using iPad apps about e-safety issues/ Year 4. -Change the appearance of text to increase its effectiveness.</p> <p>Machines and mechanisms: Project 1 A unit that investigates building mechanisms with Lego WeDo. Following instructions the children then design, build and program machines.</p> <p>E-Safety focus in lesson starters using Think U know Cyber Café and Net Smartz. Digital Literacy and Citizenship Rings of responsibility Pupils explore what it means to be responsible to and respectful of their offline and online communities as a way to learn how to be good digital citizens.</p> <p>Private and Personal Responsibility How can you protect yourself from online identity theft? Pupils think critically about the information they share online.</p>	<p>Reminder of e-safety key messages. Safer Internet Day: Tuesday 6th February "Create, connect and share respect: A better internet starts with you"</p> <p>Touch Typing BBC Dance Mat revision from Year 3.</p> <p>Searching the web A unit that looks at all elements of searching the web with care and consideration, covering: searching tricks, validating websites, improving your searches, searching images and searching online maps.</p> <p>Machines and mechanisms: Project 2: All the Fun of the Fair In this unit the pupils will be making logos; manipulating data in spreadsheets and use Lego WeDo to control fun fair rides.</p> <p>Hurray for Hollywood Making a movie about Patterdale experiences.</p> <p>Digital Literacy and Citizenship The Power of Words Pupils consider that they may get online messages from other kids that can make them feel angry, hurt, sad, or fearful. Pupils identify actions that will make them Upstanders in the face of cyberbullying.</p> <p>The Key to Keywords Pupils learn strategies to increase the accuracy of their keyword searches and make inferences about the effectiveness of the strategies.</p>	<p>We are software developers (Programming) -Design and write programs that accomplish specific goals. -Solve problems by decomposing them into smaller parts. -Use sequence and repetition in programs. -Use logical reasoning to predict how simple algorithms work. -Create simple games within Kodu/ Scratch.</p> <p>Getting started with Kodu A unit to introduce students to creating games with Kodu. Program your characters and design your 3D worlds to make exciting collecting and racing games.</p> <p>Digital Literacy and Citizenship Whose is it, Anyway? Pupils learn that copying the work of others and presenting it as one's own is called plagiarism. They also learn about when and how it's ok to use the work of others.</p>

Year 4 D&T		
Autumn Term	Spring Term	Summer Term
Food Technology – Super Salads Textiles -Christmas Stockings	Structures – Photograph Frames Food Technology -Biscuits	Control - Electrical – Alarms/ Lighting it up Structures -Shelters

Year 4 History		
Autumn Term	Spring Term	Summer Term
<u>Anglo Saxons</u> Why the Anglo Saxons came and who they were. Reasons for Saxon settlements How the Saxons travelled Farming Kingdoms Anglo Saxon people, including Offa Place names Laws – trial by ordeal Religion – Sutton Hoo Monks and monasteries - Bede <u>Vikings</u> Reasons for invasion Travel and ships Alfred the Great The Danelaw Towns and settlements People, laws and punishments Runes and coins Edward the Confessor The legacy of invasion <u>Possible Activities</u> Bede's World, Jarrow Jorvik, York	<u>Ancient Greeks</u> Where is Greece? Knowing the difference between Ancient and modern Greece A timeline of Ancient Greece The City States Athens – architecture The Parthenon Using secondary sources Theatre in Ancient Greece Gods and Goddesses Myths Greek Warfare Athens and Sparta The Olympic Games Language and Writing <u>Possible Activities</u> Great North Museum, Newcastle Greek Day, in school	<u>Ancient Egypt</u> Locating Ancient Egypt in a time place The Nile and the Aswan Dam Pyramids Pharaohs Egyptian society Farming Gods and the Afterlife Hieroglyphs Contrast between Ancient and Modern Egypt <u>Possible Activities</u> Oriental Museum, Durham Great North Museum, Newcastle

Year 4 Geography		
Autumn Term	Spring Term	Summer Term
<u>Map work</u> Using the compass rose 4 Figure Coordinates OS Symbols Tropic of Cancer and Capricorn Arctic and Antarctic Circle Prime Meridian <u>Mountains</u> Major Mountains of the World Mountain environments What are mountains How mountain chains are formed Ice Valleys and waterfalls Lakes and passes Weather Blizzards and snowdrifts Avalanche Protecting the environment Project on a mountain/range	<u>Europe</u> Locate Countries of Europe Capital Cities The European Union Mountains, Rivers and Seas <u>Exploring Scandinavia</u> Countries of Scandinavia Locate Scandinavia on a map Main cities, mountains and rivers of Scandinavia Climate and weather Human geography of the area Compare and contrast to the UK Planning a trip to Scandinavia	<u>The Environment</u> How people affect the environment What is the environment like in school? Pollution Waste and recycling Positive and negative features of an environment Sculptures and effect on area How can the environment be managed and sustained <u>Possible Activities</u> Cullercoats Beach

Year 4 Drama		
Autumn Term	Spring Term	Summer Term
Roald Dahl Saxons/BBC Audio Sutton Hoo	Midsummer Night's Dream	Movement, Mime and Improvisation Doorways to Imagined Worlds

Year 4 PSHE/Religious Education		
Autumn Term	Spring Term	Summer Term
<p>My world Becoming a class 'Team' Being a school citizen Rights, responsibilities and democracy</p> <p>Love and loss Loss Memories</p> <p>Religion: Christianity Theme: Christmas/Incarnation Key Question: What is the most significant part of the nativity story for Christians today?</p>	<p>Celebrating Differences Judging by appearances Understanding influences Understanding bullying Problem solving Special me How we look</p> <p>Religion: Buddhism Theme: The 8-fold path Key Question: What is the best way for a Buddhist to lead a good life?</p>	<p>Dreams and Goals Hopes and dreams Broken dreams Overcoming disappointment Creating new dreams</p> <p>Religion: Judaism Theme: Beliefs and Practices Key Question: What is the best way for a Jew to show commitment to God?</p>

Year 4 Music		
Autumn Term	Spring Term	Summer Term
<p>Notation (- introduced and used within the projects as and when it is useful): Symbols used in Y3, plus: pitch notation through recorder playing, using "Red Hot Recorder" books.</p>		
<p>Composition Using Mozart's <i>Sleigh Ride K605 No.3</i>, students will learn how to devise and interpret graphic scores, before developing their own group composition skills. They will further their understanding of instruments of the orchestra as well as build on their knowledge of note values from last year.</p> <p>Musical concepts explored:</p> <ul style="list-style-type: none"> Revision of note values- semibreve, dotted minim, minim, crotchet, semibreve, crotchet rest, 2/4, 3/4 and 4/5 time signatures and notes on a staff. The semiquaver and semibreve rest will be introduced. Composition and notation <p>Carol Service preparation. As well as traditional congregational carols, songs and words for a Year 3 and 4 Nativity play will be learnt.</p> <p>Developing performance skills:</p> <ul style="list-style-type: none"> For a specific place, For a specific occasion, <p>Developing singing skills:</p> <ul style="list-style-type: none"> Accuracy, Expression, Physical presentation. 	<p>Notation and Performance Using the recorder, students will study standard notation. They will focus on producing a good sound, maintaining the beat, accuracy, ensemble playing and performing to an audience.</p> <p>Musical concepts explored:</p> <ul style="list-style-type: none"> Crotchet, quaver, minim, semibreve, crotchet rest, treble clef pitches, staff, bar, barline, repeat mark, 4/4 and 3/4 time signatures Performance Ensemble playing 	<p>Pentatonic scales Building on composition skills learnt in the Autumn term, students will improvise simple tunes based on the pentatonic scale. They will further their understanding of pentatonic melodies using a drone and melodic ostinato accompaniment. Students will develop an awareness of how sounds can create an atmosphere.</p> <p>Musical concepts explored:</p> <ul style="list-style-type: none"> Melody, timbre, tempo, dynamics and rhythm: chosen, combined and developed to reflect time, place, mood, events and personality. Structure – Ternary (ABA), AB/AB Notation – graphic and standard

Year 4 Swimming		
Autumn Term	Spring Term	Summer Term
Stroke development and work on diving.	A continuation of: Water skills Personal survival skills Stroke development Stamina work	Development of performance swimming for some and stroke development for others.

Year 4 Games		
Autumn Term	Spring Term	Summer Term
<p>General fitness.</p> <p>Boys.</p> <p>Rugby. Introduction of tackling. Handling and contact skills. NROP.</p> <p>Girls.</p> <p>To half term, Netball. Concentrate on variety of pass, footwork and attack and defence. After half term, Hockey. Pupils able to push, hit and slap ball. Dribble ball with awareness of other players.</p>	<p>Cross-country, long distance, interval training, steps work.</p> <p>Boys to half term, Girls after half term.</p> <p>Football. The children should understand the different positions on the pitch now and not all gather around the ball. Switch to Hockey</p> <p>Girls.</p> <p>Netball. Pupils able to use a variety of passes. Pupils able to link passes together and use the correct pass at the correct time.</p> <p>Hockey. Use of correct footwork, to receive the ball and pass the ball; Pupils understand how to score? Pupils understand what is meant by defending, tackling, shadowing, and safety.</p> <p>Athletics. Looking at the basics of the run, jump and throw.</p>	<p>Athletics. Focus on running technique and efficiency. Work on jumping and throwing events.</p> <p>Boys.</p> <p>Cricket. They should be aware of how to hold the bat correctly and the striking action. Pupils will be taught to understand the basic bowling action.</p> <p>Girls.</p> <p>Rounders. Using a soft ball Pupils should be taught the rudimentary skills of rounders working firstly with soft ball and hitting tee developing into hard ball and bat.</p>

Year 4 Physical Education		
Autumn Term	Spring Term	Summer Term
<p>Gymnastics</p> <p>Acrobatic movements and vault.</p>	<p>Dance</p> <p>Perform dances using a range of movement patterns.</p> <p>Respond to a range of stimuli and accompaniment.</p> <p>Introduce more advanced ball skills exercises.</p>	<p>Ball skills</p> <p>Concentrate on good technique for throwing and catching. Work predominantly on hand to eye coordination.</p> <p>Short tennis</p> <p>Recap on racket, grip and balance. More complicated techniques employed.</p>

Year 4 Spanish		
Autumn Term	Spring Term	Summer Term
<p>Introduction to Spain and Spanish speaking countries</p> <p>Basic greetings (hello, goodbye, name, age, live)</p> <p>Feelings To be able to ask and answer questions about how you feel</p> <p>Classroom instructions</p> <p>Halloween</p> <p>Guy Fawkes</p> <p>Numbers 0 to 15</p> <p>Days of the week/months of the year</p> <p>Cultural awareness: Christmas in Spain</p>	<p>Numbers 15 to 31</p> <p>Family Vocabulary for member of family Ask and answer simple questions</p> <p>Colours</p> <p>Animals</p> <p>Weather</p>	<p>Food and drink Learn vocabulary for food and drinks</p> <p>To be able to ask and answer questions about what they would like to eat and drink.</p> <p>To order food and drink.</p>

Year 4 Art						
Term	Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
Topic	Bird Art	Indian Art	Greek Art and serial story	Architects	Recycled Art	Landscapes
Painting	Peacock paintings		Greek pots	Taj Mahal		Great Artist study: David Hockney observations
Drawing	Bird observations	Scratch art henna hands Rangoli patterns Christmas card Calendar piece	Serial story	Saint Basil's cathedral Drawings of the RGS		
Sculpture	Clay bird sculptures	Diwali diyas	Greek masks	Angel of the North clay project	Recycled sculpture	
Textiles		Carnival elephant mixed paper collage Artist study: Bhaiti Kher			Torn magazine art Loom Weaving	Cityscapes
Digital Media						Viewpoints from a camera's perspective
Art Appreciation	Johannes Vermeer		Botticelli			