



My Space

## Spring Term 2017 Year 5 da Vinci class

### Mathematicians will be able to:

Multiply numbers up to 4 digits by a 1- or 2-digit number using a formal written method, including long multiplication for 2 digit numbers.

Divide numbers up to 4 digits by a 1-digit number using the formal written method of short division and interpret remainders appropriately for the context.

Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.

Solve problems involving multiplication and division including using knowledge of factors and multiples.

Solve problems involving all four number operations and a combination of these including understanding the use of the equals sign.

Compare and order fractions whose denominators are all multiples of the same number. Add and subtract fractions with the same denominator and multiples of the same number.

Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.

Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements  $> 1$  as a mixed number.

### Mathematicians will be able to:

Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.

Round decimals with two decimal places to the nearest whole number and to one decimal place. Read and write decimal numbers as fractions (e.g.  $0.72 = \frac{72}{100}$ ). Round decimals with two decimal places to the nearest whole number and to one decimal place. Read and write decimal numbers as fractions (e.g.  $0.72 = \frac{72}{100}$ ).

Read, write, order and compare numbers with up to three decimal places. Solve problems involving number up to three decimal places.

Write percentages as a fraction. Solve problems which require knowing percentage and decimal equivalents of  $\frac{1}{2}$ ,  $\frac{1}{4}$ ,  $\frac{1}{5}$ ,  $\frac{2}{5}$ ,  $\frac{1}{5}$  and those with a denominator of a multiple of 10 or 25.

Solve comparison, sum and difference problems using information presented in a line graph.

Complete, read and interpret information in tables, including timetables.

### Scientists will use scientific enquiry to be able to:

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.

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.

Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.

Know that some materials dissolve in liquid to form a solution, and describe how to recover a substance.

Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.

Demonstrate that dissolving, mixing and changes of state are reversible changes.

Explain that some changes result in the formation of new materials, & that this kind of change is not usually reversible, inc. changes associated with burning & the action of acid on bicarbonate of soda.

### Speakers and listeners will be able to:

Adapt their spoken language depending on the audience, the purpose or the context.

Develop their ideas and opinions providing relevant detail.

Show that they understand the main points, including implied meanings in a discussion.

### Readers will be able to:

Work out the meaning of unknown words from the way they are used in context.

Understand and explain the function of sophisticated punctuation.

Explain a character's motives throughout a story and use evidence from the text to back up opinions.

Explain the structural devices an author has used to organise a text e.g. flashbacks

Decide on the quality and usefulness of a range of texts and explain clearly to others.

Discuss how authors use literal and figurative language and the effect of imagery.

### Writers will be able to:

#### Produce well structured and organised writing.

Identify the audience, purpose and correct form for writing and write across a range of different genres e.g.

#### Non fiction writing

Scientific explanations of the concepts studied, non-chronological and newspaper reports about the Saxons, heritage and local history.

#### Fiction writing

Know and use the structure of stories to write their own based on class books e.g. Wolf Brother by Michelle Paver.

#### Poetry

Read, understand and learn a poem by heart.

Use a wide range of vocabulary and punctuation and spell accurately when writing across the curriculum.

Historians will be able to use historical enquiry to :

**Complete Monarchy**

Use understanding of similarity, difference and significance to compare monarchs.  
Create own accounts of lives of monarchs based on a range of different sources.  
Devise historically valid questions about change, cause, similarity and difference, and significance of the events involved with specific monarchs.

**Complete Anglo-Saxons and Scots**

Explain and give opinions on how Britain was ruled in Anglo-Saxon times, include a focus on some of the laws of the land; explain thoughts on the fairness of the laws.

Describe homes in Anglo-Saxon Britain and compare Anglo-Saxon villages with Roman towns.

Discuss the similarities and differences between daily life in Anglo-Saxon times and life today; give opinions on this.

Study the Sutton Hoo burial site and explain what it tells us about the person buried there and about life in Anglo-Saxon Britain.

Know some of the gods and goddesses worshipped by the Anglo-Saxons and make links between them and the modern days of the week.

Create Anglo Saxon designs, those used in a many aspects of Anglo-Saxon life.

**Heritage**

Use factual understanding and knowledge to describe features of past societies and periods and to begin to make connections, contrasts and trends over time.

Set up and curate a class museum following the Pathfinder visit.

Geographers will be able to:

**Map work**

Locate most of Europe on a map at a range of different scales.

Use an atlas (maps, index and contents) and globes to locate and identify countries and a range of major cities within Europe and Asia.

Use a globe to locate a named continent and country, and relate these same areas to a 2D and 3D map.

Use six- figure coordinates with confidence and accuracy to locate features on a map.

Use a map scale and measure distance in the real world.

Use eight compass points confidently and accurately to describe movement and routes to and back to a location.

Use points and grid references to follow and plan a route.

Create individual maps or plans with designed symbols; make them suitable for different audiences.

Use OS symbols to mark places and features on maps and plans, and design personal symbols.

Create a sketch map of the local area and select the main physical and human features.

Use maps of the wider area to design and follow a route across an area studied, avoiding hazards and visiting set features.

Use age specific geographical vocabulary to write information about physical and human features in the local area.

**Computer Literate children will be able to:**

Set and store variables.

Use conditional statements based on stored variables to make decisions in real-time.

Refine and improve a procedure using repeat commands to make it more effective and efficient.

Evaluate the effectiveness of others' programming.

Use logical reasoning to detect and debug errors in algorithms within a program.

**In French, children will be able to:**

Name and describe people.

Name and describe places.

Name and describe objects.

Have a short conversation saying 3-4 things.

Give a response using a short phrase.

Begin to speak in sentences.

**NB: These lessons will be led by a French Speaking Teacher from St Peter's Secondary School**

**As part of their Personal Development children will study citizenship and be able to:**

Be able to identify their own strengths and skills, those of others and know how these can complement one another.

Be able to talk about skills they would like to develop and their hopes for the future.

Understand that the ability to learn is a valuable skill.

Know some skills which might be useful in a range of jobs.

Communicate effectively using listening, negotiation, debating and negotiation skills.

Recognise influences on their decision making, including the media.

Know how to persevere.

Use evaluation and feedback to inform future work.

In the second half of the term good citizens will be able to understand that their bodies are growing and changing and undertake a programme of study about sex and relationships.

**Artists will study British Landscape artists and be able to:**

Research the life and works of British Landscape artists such as L.S. Lowry, David Hockney, John Constable, J.M.W. Turner, Heaton Cooper and Paul Nash.

Study perspective and composition whilst developing their own drawing, painting and printing techniques.

Complete a personal landscape, selecting and evaluating their chosen media.

*Two outstanding pieces will be chosen to represent the school in the 'Cambridge Area Young Artist of the Year' competition.*

**In PE, children will take part in Quick Sticks hockey and dance be able to:**

Use running, jumping, throwing and catching in isolation and in combination.

Play competitive games, modified where appropriate and apply basic principles suitable for attacking and defending

Compare performances with previous ones and demonstrate improvement in order to achieve a personal best.

Perform dances using a range of movement patterns.

**Musicians will study music that is part of their heritage, Elizabethan music, recorder, singing and Samba band and be able to:**

Rehearse, sing and play music from across a range of styles, genres, cultures and historical times.

Sing and play with increasing control, confidence and expression.

Sing in tune using a consistent tone and combine the skills of diction, pitch and phrase to sing songs in unison.

Play a part in a group or performed a solo as part of a group.

Play instruments with control and rhythmic accuracy.

Recognise when repeated patterns are being used in music.

Recognise music composed by at least 4 great composers.

Share opinions of music by different composers with others.

Learn and sing at least 2 traditional songs within a group.

Explore their own ideas and feelings about music using creative arts.

Explain how time and place can influence how music is created, performed and heard, giving a simple example.

**In R.E. children will complete Hinduism and study signs and symbols as well as considering faith and the difference it makes. They will be able to:**

Consider the meaning of a range of forms of religious expression, understand why they are important in religion and note links between them.

Describe and understand religious and other responses to ultimate and ethical questions.

Respond to the challenges of commitment both in their own lives and within religious traditions, recognising how commitment to a religion is shown in a variety of ways.

Discuss their own and other's views of religious truth and belief, expressing their own ideas.

Use and interpret information about religions from a range of sources.

**Designers will be able to:**

Bread making

Produce a menu of utensils and ingredients for a specific cooking task.

Chop, mix, spread, knead and bake (*bread*) safely.

Anglo-Saxon jewellery and /or homes

Research in detail the needs and wants of users for a pre-specified product, and present them to others as 2D and 3D diagrams (hand drawn or computer generated).

Develop a range of design criteria that inform ideas and develop a more complex design.

Bridge building

Use prototypes to generate, model, and communicate suggestions for a design solution.

Communicate ideas in simple 3D diagrams, viewed from different angles.

Create a list of tools and equipment needed for the specific technique to be used.

Use, with increasing accuracy, skills and techniques to join materials and components.

Create and record safety procedures for the use of specific equipment.