



**Higham St John's C.E. Primary School**

**Key Skills Document**

**YEAR 3**

**Teachers at Higham St John's work to a skills based curriculum, which helps ensure that children learn not only factual information, but also develop the skills they need to function well in the future.**

**This document is designed to give you an overview of what skills your child will be taught within each year group. However, it is only provided as a guide, as the curriculum varies each year, based on:-**

- **The needs of the children with the class (e.g. Social/Academic)**
- **Children's prior experiences**
- **Special occasions – e.g. Olympics, Major news events etc**

**Also, as all of our classes are mixed age, some skills will be covered in a different year group than stated here.**

## Key Learning in Reading: Year 3

### Word Reading

As above and:

- Use knowledge of root words to understand meanings of words.
- Use prefixes to understand meanings e.g. *un-*, *dis-*, *mis-*, *re-*.
- Use suffixes to understand meanings e.g. *-ation*, *-ous*.
- Read and understand meaning of words on Y3/4 word list – see bottom.
- Use intonation, tone and volume when reading aloud.
- Take note of punctuation when reading aloud.

### Comprehension

As above and:

Develop pleasure in reading, motivation to read, vocabulary and understanding by:

- Listening to and discussing a range of fiction, poetry, plays, non-fiction.
- Regularly listening to whole novels read aloud by the teacher.
- Reading a range of non-fiction texts including information, explanations, instructions, recounts, reports, persuasion.
- Analysing and evaluate texts looking at language, structure and presentation e.g. *newspaper reports*, *recipes*, *etc.*
- Recognising some different forms of poetry e.g. *narrative*, *free verse*.
- Reading books and texts for a range of purposes e.g. *enjoyment*, *research*, *skills development*, *reference*.
- Using dictionaries to check meanings of words they have read.
- Sequencing and discussing the main events in stories.
- Retelling a range of stories, including less familiar fairy stories, fables and folk tales e.g. *Grimm's Fairy Tales*, *Rudyard Kipling Just So Stories*.
- Identifying and discussing themes e.g. *good over evil*, *weak and strong*, *wise and foolish*, *mean and generous*, *rich and poor*.
- Identifying and discussing conventions e.g. *numbers three and seven in fairy tales*, *magical sentence repeated several times*.
- Identifying, discussing and collecting favourite words and phrases which capture the reader's interest and imagination.
- Preparing poems/playscripts to read aloud, showing understanding through intonation, tone, volume and action.

Understand what they read independently by:

- Discussing their understanding of the text
- Explaining the meaning of unfamiliar words by using the context
- Making predictions based on details stated
- Raising questions during the reading process to deepen understanding e.g. *I wonder why the character.*
- Drawing inferences around characters thoughts, feelings and actions, and justify with evidence from the text
- Using point and evidence to structure and justify responses.
- Discussing the purpose of paragraphs.
- Identifying a key idea in a paragraph.

Retrieve and record information from non-fiction

- Evaluating how specific information is organised within a non-fiction text e.g. *text boxes*, *sub-headings*, *contents*, *bullet points*, *glossary*, *diagrams*.
- Quickly appraising a text to evaluate usefulness.
- Navigating texts in print and on screen.

Participating in discussion about what is read to them and books they have read independently, taking turns and listening to what others say

- Developing and agreeing on rules for effective discussion.
- Making and responding to contributions in a variety of group situations e.g. *whole class*, *pairs*, *guided groups*, *book circles*.

# Key Learning in Writing: Year 3



| Composition  |  | Transcription  |   |
|--|--|--|---|
| Vocabulary, grammar and punctuation  | Composition  | Spelling<br><i>(see also the Lancashire Supporting Spelling document for further detail and advice)</i>  | Handwriting   |
| <p>As above and:</p> <ul style="list-style-type: none"> <li>Explore and identify main and <b>subordinate clauses</b> in complex sentences.</li> <li>Explore, identify and create complex sentences using a range of <b>conjunctions</b> e.g. <i>if, while, since, after, before, so, although, until, in case</i>.</li> <li>Identify, select, generate and effectively use <b>prepositions</b> for where e.g. <i>above, below, beneath, within, outside, beyond</i>.</li> <li>Select, generate and effectively use adverbs e.g. <i>suddenly, silently, soon, eventually</i>.</li> <li>Use <b>inverted commas</b> to punctuate <b>direct speech (speech marks)</b>.</li> <li>Use perfect form of verbs using <i>have</i> and <i>had</i> to indicate a completed action e.g. <i>I <u>have</u> washed my hands. We will <u>have</u> eaten our lunch by the time Dad arrives. Jack <u>had</u> watched TV for over two hours!</i></li> <li>Use the determiner <i>a</i> or <i>an</i> according to whether the next word begins with a <b>consonant</b> or <b>vowel</b> e.g. <i>a rock, an open box</i>.</li> <li>Explore and collect <b>word families</b> e.g. <i>medical, medicine, medicinal, medic, paramedic, medically</i> to extend vocabulary.</li> <li>Explore and collect words with <b>prefixes</b> <i>super, anti, auto</i>.</li> </ul> | <p>As above and:</p> <p>Plan their writing by:</p> <ul style="list-style-type: none"> <li>Reading and analysing narrative, non-fiction and poetry in order to plan and write their own versions.</li> <li>Identifying and discussing the purpose, audience, language and structures of narrative, non-fiction and poetry for writing.</li> <li><u>Discussing and recording ideas for planning.</u></li> <li>Creating and developing settings for narratives.</li> <li>Creating and developing characters for narrative.</li> <li>Creating and developing plots based on a model.</li> <li>Generating and selecting from vocabulary banks e.g. <i>noun phrases, powerful verbs, technical language, synonyms for said</i> appropriate to text type.</li> <li><u>Grouping related material into paragraphs.</u></li> <li><u>Using headings and sub headings to organise information.</u></li> </ul> <p>Evaluate, and edit by:</p> <ul style="list-style-type: none"> <li><u>Proofreading to check for errors in spelling, grammar and punctuation in own and others' writing.</u></li> <li>Discussing and proposing changes with partners and in small groups.</li> <li>Improving writing in the light of evaluation.</li> </ul> <p>Perform their own compositions by:</p> <ul style="list-style-type: none"> <li>Using appropriate intonation, tone and volume to present their writing to a group or class.</li> </ul> | <p>As above and:</p> <ul style="list-style-type: none"> <li>Use further <b>prefixes</b> and <b>suffixes</b> and understand how to add them.</li> <li>Spell further homophones.</li> <li>Spell words that are often misspelt.</li> <li><u>Use the first two letters of a word to check its spelling in a dictionary.</u></li> <li>Write from memory simple sentences, dictated by the teacher, that include words and punctuation taught so far.</li> <li>Learn to spell new words correctly and have plenty of practice in spelling them.</li> <li>Understand how to place the apostrophe in words with regular plurals (e.g. <i>girls', boys'</i>).</li> <li>Spell words as accurately as possible using their phonic knowledge and other knowledge of spelling, such as morphology and etymology.</li> </ul> | <p>As above and:</p> <ul style="list-style-type: none"> <li><u>Form and use the four basic handwriting joins.</u></li> <li><u>Write legibly.</u></li> </ul> |

## Key Learning in Mathematics – Year 3



| Number – number and place value   | Number – addition and subtraction  | Number – multiplication and division  |
|---|--|---|
| <ul style="list-style-type: none"><li>Count from 0 in multiples of 4, 8, 50 and 100.</li><li>Count up and down in tenths.</li><li>Read and write numbers up to 1000 in numerals and in words.</li><li>Read and write numbers with one decimal place.</li><li>Identify, represent and estimate numbers using different representations (including the number line).</li><li>Recognise the place value of each digit in a three-digit number (hundreds, tens, ones).</li><li>Identify the value of each digit to one decimal place.</li><li>Partition numbers in different ways (e.g. <math>146 = 100 + 40 + 6</math> and <math>146 = 130 + 16</math>).</li><li>Compare and order numbers up to 1000.</li><li>Compare and order numbers with one decimal place.</li><li>Find 1, 10 or 100 more or less than a given number.</li><li>Round numbers to at least 1000 to the nearest 10 or 100.</li><li>Find the effect of multiplying a one- or two-digit number by 10 and 100, identify the value of the digits in the answer.</li><li>Describe and extend number sequences involving counting on or back in different steps.</li><li>Read Roman numerals from I to XII.</li><li>Solve number problems and practical problems involving these ideas.</li></ul> | <ul style="list-style-type: none"><li>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method).</li><li>Select a mental strategy appropriate for the numbers involved in the calculation.</li><li>Understand and use take away and difference for subtraction, deciding on the most efficient method for the numbers involved, irrespective of context.</li><li>Recall/use addition/subtraction facts for 100 (multiples of 5 and 10).</li><li>Derive and use addition and subtraction facts for 100.</li><li>Derive and use addition and subtraction facts for multiples of 100 totalling 1000.</li><li>Add and subtract numbers mentally, including:<ul style="list-style-type: none"><li>a three-digit number and ones.</li><li>a three-digit number and tens.</li><li>a three-digit number and hundreds.</li></ul></li><li>Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction.</li><li>Estimate the answer to a calculation and use inverse operations to check answers.</li><li>Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</li></ul> | <ul style="list-style-type: none"><li>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method).</li><li>Understand that division is the inverse of multiplication and vice versa.</li><li>Understand how multiplication and division statements can be represented using arrays.</li><li>Understand division as sharing and grouping and use each appropriately.</li><li>Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</li><li>Derive and use doubles of all numbers to 100 and corresponding halves.</li><li>Derive and use doubles of all multiples of 50 to 500.</li><li>Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.</li><li>Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.</li><li>Solve problems, including missing number problems, involving multiplication and division (and interpreting remainders), including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.</li></ul> |

## Number – fractions

- Show practically or pictorially that a fraction is one whole number divided by another (e.g.  $\frac{3}{4}$  can be interpreted as  $3 \div 4$ ).
- Understand that finding a fraction of an amount relates to division.
- Recognise that tenths arise from dividing objects into 10 equal parts and in dividing one-digit numbers or quantities by 10.
- Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.
- Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.
- Recognise and show, using diagrams, equivalent fractions with small denominators.
- Add and subtract fractions with the same denominator within one whole [for example,  $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$ ].
- Compare and order unit fractions, and fractions with the same denominators (including on a number line).
- Count on and back in steps of  $\frac{1}{2}$ ,  $\frac{1}{4}$  and  $\frac{1}{3}$ .
- Solve problems that involve all of the above.

## Geometry – properties of shapes

- Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them.
- Recognise angles as a property of shape or a description of a turn.
- Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle.
- Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.

## Geometry – position and direction

- Describe positions on a square grid labelled with letters and numbers.

## Measurement

- Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).
- Continue to estimate and measure temperature to the nearest degree (°C) using thermometers.
- Understand perimeter is a measure of distance around the boundary of a shape.
- Measure the perimeter of simple 2-D shapes.
- Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks.
- Estimate/read time with increasing accuracy to the nearest minute.
- Record/compare time in terms of seconds, minutes, hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon, midnight.
- Know the number of seconds in a minute and the number of days in each month, year and leap year.
- Compare durations of events [for example to calculate the time taken by particular events or tasks].
- Continue to recognise and use the symbols for pounds (£) and pence (p) and understand that the decimal point separates pounds/pence.
- Recognise that ten 10p coins equal £1 and that each coin is  $\frac{1}{10}$  of £1.
- Add and subtract amounts of money to give change, using both £ and p in practical contexts.
- Solve problems involving money and measures and simple problems involving passage of time.

## Statistics

- Use sorting diagrams to compare and sort objects, numbers and common 2-D and 3-D shapes and everyday objects.
- Interpret and present data using bar charts, pictograms and tables.
- Solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.

## Key Learning in Science: Year 3



### Plants – Functions of Parts of a Plant)

Pupils should be taught to:

- Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers.
- Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant.
- Investigate the way in which water is transported within plants.
- Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.
- Roots grow downwards and anchor the plant.
- Water, taken in by the roots, goes up the stem to the leaves, flowers and fruit.
- Nutrients (not food) are taken in through the roots.
- Stems provide support and enable the plant to grow towards the light.
- Plants make their own food in the leaves using energy from the sun.
- Flowers attract insects to aid pollination.
- Pollination is when pollen is transferred between plants by insects, birds, other animals and the wind.
- Fertilisation occurs in the ovary of the flower.
- Seeds are formed as a result of fertilisation.
- Many flowers produce fruits which protect the seed and/or aid seed dispersal.
- Seed dispersal, by a variety of methods, helps ensure that new plants survive.
- Plants need nutrients to grow healthily (either naturally from the soil or from fertiliser added to soil).

#### Notes and Guidance (non-statutory):

Pupils should be introduced to the relationship between structure and function: the idea that every part has a job to do. They should explore questions that focus on the role of the roots and stem in nutrition and support, leaves for nutrition and flowers for reproduction.

**Note:** Pupils can be introduced to the idea that plants can make their own food, but at this stage they do not need to understand how this happens.

#### Pupils might work scientifically by:

- Comparing the effect of different factors on plant growth, for example the amount of light, the amount of fertiliser;
- Discovering how seeds are formed by
- Observing the different stages of plant cycles over a period of time;
- Looking for patterns in the structure of fruits that relate to how the seeds are dispersed.
- Observing how water is transported in plants, for example, by putting cut, white carnations into coloured water.
- Observing how water travels up the stem to the flowers.

### Health - Health/Nutrition)

Pupils should be taught to:

- Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat.
- An adequate and varied diet is beneficial to health (along with a good supply of air and clean water).
- Regular and varied exercise *from a variety of different activities* is beneficial to health (focus on *energy in versus energy out*. Include information on making informed choices).

#### Notes and Guidance (non-statutory):

Pupils should continue to learn about the importance of nutrition

#### Pupils might work scientifically by:

- Comparing and contrasting the diets of different animals (including their pets).
- Decide ways of grouping them according to what they eat.
- Researching different food groups and how they keep us healthy.
- Designing meals based on what they find out.

### Animals - Skeletons and Movement)

Pupils should be taught to:

- Identify that humans and some other animals have skeletons and muscles for support, protection and movement.
- Identify animals (vertebrates) which have a skeleton which supports their body, aids movement & protects vital organs (be able to name some of the vital organs).
- Identify animals without internal skeletons/backbones (invertebrates) and describe how they have adapted other ways to support themselves, move & protect their vital organs.
- Know how the skeletons of birds, mammals, fish, amphibians or reptiles are similar (backbone, ribs, skull, bones used for movement) and the differences in their skeletons.
- Know that muscles, which are attached to the skeleton, help animals move parts of their body.
- Explore how humans grow bigger as they reach maturity by making comparisons linked to body proportions and skeleton growth – e.g. do people with longer legs have longer arm spans?
- Recognise that animals are alive; they move, feed, grow, use their senses and reproduce.

#### Notes and Guidance (non-statutory):

Pupils should be introduced to the main body parts associated with the skeleton and muscles, finding out how different parts of the body have special functions.

#### Pupils might work scientifically by:

- Identifying and grouping animals with and without skeletons.
- Observing and comparing their movement.
- Exploring ideas about what would happen if humans did not have skeletons.

## Material Properties - Rocks)

Pupils should be taught to:

- Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties.
- Describe in simple terms how fossils are formed when things that have lived are trapped within rock.
- Recognise that soils are made from rocks and organic matter.
- Rocks and soils can feel and look different.
- Rocks and soils can be different in different places/environments.

### Notes and Guidance (non-statutory):

Linked with work in geography, pupils should explore different kinds of rocks and soils, including those in the local environment.

### Pupils might work scientifically by:

- Observing rocks, including those used in buildings and gravestones.
- Exploring how and why they might have changed over time.
- Using a hand lens or microscope to help them.
- Identify and classify rocks according to whether they have grains or crystals, and whether they have fossils in them.
- Research and discuss the different kinds of living things whose fossils are found in sedimentary rock.
- Explore how fossils are formed.
- Explore different soils.
- Identify similarities and differences between them.
- Investigate what happens when rocks are rubbed together or what changes occur when they are in water.
- Raise and answer questions about the way soils are formed.

## Light and Astronomy - Light, reflections and shadows)

Pupils should be taught to:

- Recognise that they need light in order to see things and that dark is the absence of light.
- Notice that light is reflected from surfaces.
- Recognise that light from the sun can be dangerous and that there are ways to protect their eyes.
- Recognise that shadows are formed when the light from a light source is blocked by a solid object.
- Find patterns in the way that the size of shadows change.

### Notes and Guidance (non-statutory):

Pupils should explore what happens when light reflects off a mirror or other reflective surfaces, including playing mirror games to help them answer questions about how light behaves. They should think about why it is important to protect their eyes from bright lights. They should look for, and measure shadows and find out how they are formed and what might cause shadows to change.

**Note:** Pupils should be warned that it is not safe to look directly at the Sun, even when wearing dark glasses.

### Pupils might work scientifically by:

- Looking for patterns in what happens to shadows when the light source moves or the distance between the light source and the object changes.

## Forces – Non contact forces)

Pupils should be taught to:

- Compare how some things move on different surfaces.
- Notice that some forces need contact between two objects but magnetic forces can act at a distance.
- Observe how magnets attract or repel each other and attract some materials and not others.
- Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials.
- Describe magnets as having two poles.
- Predict whether two magnets will attract or repel each other, depending on which poles are facing.

### Notes and Guidance (non-statutory):

Pupils should observe that magnetic forces can act without direct contact, unlike most forces, where direct contact is necessary (for example, opening a door, pushing a swing). They should explore the behaviour and everyday uses of different magnets (for example, bar, ring, button, horseshoe).

### Pupils might work scientifically by:

- Comparing how different things move and grouping them.
- Raising questions and carrying out tests to find out how far things move on different surfaces.
- Gathering and recording data to find answers to their questions.
- Exploring the strengths of different magnets and finding a fair way to compare them.
- Sorting materials into those that are magnetic and those that are not.
- Looking for patterns in the way that magnets behave in relation to each other and what might affect this, for example, the strength of the magnet or which pole faces another.
- Identifying how these properties make magnets useful in everyday items and suggesting creative uses for different magnets.

|   |  |  |   |  |  |
|---|--|--|---|--|--|
| <b>Sort / group / compare / classify / identify</b>   | <b>Research</b><br><i>finding things out using a wide range of secondary sources of information and recognising that scientific ideas change and develop over time</i>   | <b>Modelling</b>   | <b>Recording of 'Explore / Observe'</b><br><i>developing a deeper understanding of a wide range of scientific ideas encountering more abstract ideas</i>  | <b>Questioning</b><br><i>asking their own questions about scientific phenomena</i>   | <b>Planning</b><br><i>using different types of scientific enquiry making decisions about and explaining choices for testing</i>  |
| <ul style="list-style-type: none"> <li>Compare and contrast functions, diets, teeth, changes over time.</li> <li>Record similarities and differences.</li> <li>Decide ways and give reasons for sorting, grouping, classifying, identifying things/objects, living things, processes or events based on specific characteristics.</li> </ul>  | <ul style="list-style-type: none"> <li>Create/invent design something based on what they have found out applying both research and/or practical experiences (Y3/4).</li> <li>Find out about the work of famous scientists historical and modern day (Y3/4).</li> <li>Finding things out using secondary sources of information (Y3/4).</li> </ul>  | <ul style="list-style-type: none"> <li>Act out something to represent something else about the world around us.</li> </ul>   | <ul style="list-style-type: none"> <li>Observe and record relationships between structure and function (Y3/4).</li> <li>Observe and record changes /stages over time (Y3/4).</li> <li>Explore / observe things in the local environment / real contexts and record observations (Y3/4).</li> <li>Record observations/explorations/ processes using simple scientific language.</li> </ul> | <ul style="list-style-type: none"> <li>Explore their own ideas about 'what if...?' scenarios e.g. humans did not have skeletons.</li> <li>Begin to understand that some questions are testable/ can be tested in the classroom and some cannot.</li> <li>Within a group suggest relevant questions about what they observe and about the world around them.</li> </ul> | <ul style="list-style-type: none"> <li>Help to decide about how to set up a simple fair test and begin to recognise when a test is not fair.</li> <li>As a group, begin to make some decisions about the best way of answering their questions.</li> <li>With support/as a group, set up simple practical enquiries incl. comparative and fair tests e.g. make a choice from a list of at least one variable that needs to be kept the same when conducting a fair test.</li> <li>Find/suggest a way to compare things e.g. materials, magnets.</li> </ul> |
| <b>Equipment and measurement</b><br><i>increasing complexity with increasing accuracy and precision make their own decisions about the data to collect</i>  | <b>Communicating Recording</b><br><i>recording data, reporting findings, presenting findings</i>   | <b>Considering the results of an investigation / writing a conclusion</b>  |   |  | <b>Collaborating</b>   |
| <ul style="list-style-type: none"> <li>Collect data from their own observations and measurements, using notes/ simple tables/standard units.</li> <li>Help to make some decisions about what observations to make, how long to make them for and the type of simple equipment that might be used.</li> <li>Make simple accurate measurements using whole number standard units, using a range of equipment.</li> <li>Gathering data in a variety of ways to help in answering questions.</li> <li>Learn how to use new equipment, e.g. data loggers.</li> <li>Explore observe with increased accuracy using a hand lens or microscope.</li> </ul> | <ul style="list-style-type: none"> <li>Record and present findings using simple scientific language and vocabulary, including discussions, oral and written explanations, notes, drawings annotated, pictorial representations, labelled diagrams, simple tables, bar charts [using ranges and intervals (scales) chosen for them] displays or presentations.</li> <li>Record, classify and present data in a variety of ways to help in answering questions.</li> <li>Communicate their findings in ways that are appropriate for different audiences. (Y3/4).</li> </ul> | <b>Describe results</b><br><i>Looking for patterns analysing functions, relationships and interactions more systematically</i>   | <b>Explain results</b><br><i>Draw conclusions based on evidence</i>   | <b>Trusting my results</b>   | <ul style="list-style-type: none"> <li>Act out something to represent something else about the world around us.</li> </ul>   |
|   |  | <ul style="list-style-type: none"> <li>Describe and compare the effect of different factors on something.</li> <li>With help, look for changes and patterns in their observations and data.</li> <li>Use their results to consider whether they meet predictions.</li> </ul> | <ul style="list-style-type: none"> <li>Read and spell scientific vocabulary correctly and with confidence (Y3/4).</li> <li>Use their own experience and some evidence or results to draw simple conclusions and answer questions.</li> <li>Talk about and record their findings using simple scientific language.</li> <li>Explain why things have happened.</li> </ul>                   | <ul style="list-style-type: none"> <li>Say whether what happened was what they expected and notice any odd results that seem odd.</li> <li>Begin to recognise when a test is not fair and suggest improvements.</li> </ul>   |  |

# Key Learning in Computing: Years 3 and 4



## Information Technology

### Programme of Study

- Use search technologies effectively.
- Use and combine a variety of software to accomplish given goals.
- Collect and present information.
- Design and create content.
- Collect and present data.
- Use search technologies effectively.
- Use and combine internet services.
- Analyse and evaluate information.

### Skills

#### Design, create, manage and manipulate digital content

#### Text and images

- Use different font sizes, colours and effects to communicate meaning for a given audience.
- Use various layouts, formatting, graphics and illustrations for different purposes or audiences.
- Use various software tools to complete a project, problem or task.
- Use page setup to select different page sizes and orientations.
- Use cut, copy and paste to refine and re-order content.
- Combine and use various software tools to complete a project, problem or task.
- Use appropriate editing tools to ensure their work is clear and error free, e.g. spell checker, thesaurus, find and replace.
- Select and import sounds from other sources, e.g. own recordings, sound effects and music.
- Select and import graphics from digital cameras, graphics packages and other sources and prepare for use, e.g. cropping, resizing and editing.
- Use and combine internet services such as those that provide images, sounds, 3D representations and graphic software.
- Recognise and use key layout and design features, e.g., text boxes, columns and borders.
- Insert and edit simple tables.
- Create a range of hyperlinks and produce a non-linear, interactive presentation.
- Recognise intended audience and suggest improvements to make their work more relevant to that audience.
- Through self and peer assessment, analyse and evaluate presentations and projects so that suitable improvements can be added to work.

### Knowledge and Understanding

#### Design, create, manage and manipulate digital content

#### Text and images

- Recognise the features of good page design and multimedia presentations.
- Consider how design features meet the needs of the audience e.g. poster, news paper, menu, instructions.
- Understand that some tasks and problems require a variety of software tools to accomplish them.
- Understands what is meant by Internet services.
- Understand that evaluation and improvement are vital parts of the design process and that ICT allows changes to be made quickly and efficiently.
- Demonstrate this through editing their work.
- Has an awareness of Internet services.
- Recognise that IT can automate manual processes e.g. find and replace and understand the advantages and disadvantages of this.
- Compare and contrast the impact of using different sounds, words and images from a variety of electronic sources.
- Develop an increasing sense of audience and talk.
- Understand that images, 3D representations, sounds and text can be subject to copyright and abide by copyright rules when creating a presentation.
- Understand that presentations and projects need to be analysed and evaluated and suitable changes suggested to improve it.
- Understand that internet services such as those that provide images, sounds, 3D representations and graphic software can be used to achieve specific goals and tasks.

### Images, video and animation – graphics (drawing and painting)

- Acquire, store and retrieve images from cameras, scanners and the internet for a purpose.
- Select specific areas of an image, copy and paste to make repeating patterns.
- Be able to resize various elements in a graphics or paint package.
- Use various tools in paint packages or photomanipulation software to edit/change an image, e.g. applying different special effects.
- Use the 'print screen' function to capture images.
- Explore the use of graphics and paint packages to design and plan an idea.

### Images, video and animation – digital photographs, video and animation

- Use a range of devices to capture still and moving images for a purpose. These could include digital cameras, video cameras, iPads, microscopes and webcams.
- Discuss and evaluate the quality of their own and others' captured images and make decisions whether to keep, delete or change them.
- Independently download and save images and video onto a computer.
- Independently upload images and movies from digital cameras and other devices to a computer and save in a relevant location.
- Be able to 'resize' images (pixels, resolution, aspect ratio and dimensions).
- Be able to use basic tools in a software package to change images according to purpose.
- Import music, stills or video into video editing software for a specific project.
- Arrange, trim and cut clips to create a short film that conveys meaning.
- Add simple titles, credits and special effects, e.g. transitions.
- Storyboard, then use captured images to create a short animated sequence which communicates a specific idea.

### Sound

- Use a variety of devices and software to select, playback and record voice and other sounds.
- Locate and use sound files from online sources, e.g. Audio Networks, and other multimedia resources.
- Select, import and edit existing sound files in sound editing software, e.g., Audacity.
- Use editing tools to refine and improve outcomes and performances.
- Use recorded sound files in other software applications.
- Be able to share sound recordings with a wider audience.
- Use music software to experiment with capturing, repeating and sequencing sound patterns.
- Use ICT to create and perform sounds or music that would otherwise not be possible in a live situation, e.g., editing a multi-part piece.

### Images, video and animation – digital photographs, video and animation

- Understand that a digital image can be captured from different devices and it can be stored and developed.
- Begin to understand how images from different sources (stills, video, graphics, animation) are used to enhance a presentation or communicate an idea.
- Begin to understand the meaning of 'resizing' i.e. the differences between pixel size, resolution and image dimensions and the need to maintain aspect ratios.
- Understand that planning is a vital part of the design process.
- Understand that evaluation and improvement are vital parts of the design process and ICT allows changes to be made quickly and efficiently.
- Understand the need for caution when using the Internet to search for images and what to do if they find unsuitable images (See school's Acceptable Use Policy/AUP).
- Know how to take images appropriately and responsibly (See school's Acceptable Use Policy/AUP).
- Understand that copyright exists on most digital images and video about the impact of choices and decisions in their work.
- Understand that images, sounds and text can be subject to copyright and abide by copyright rules when creating a presentation.

### Sound

- Talk about software which allows the creation and manipulation of sound and music. Understand that many types of sounds can be combined in editing software.
- Understand how sound can be used in multimodal texts to create meaning and provide effects.
- Understand that copyright exists on most recorded music.

## Data handling

- Create frequency diagrams and graphs to answer questions.
- Create and use a branching database to organise and analyse information to answer questions.
- Begin to identify what data should be collected to answer a specific question.
- Collect data and enter it into a database under appropriate field headings.
- Use a database to answer straightforward questions by searching, matching and ordering the contents of a single field.
- Based on the data collected, children should raise their own questions and translate them into search criteria that can be used to find answers to specific questions.
- Compare different charts and graphs, e.g., in tables, frequency diagrams, pictograms, bar charts, databases or spreadsheets and understand that different ones are used for different purposes.
- Select and use the most appropriate method to organise and present data.
- Use dataloggers to capture, record and analyse data continuously over time, including sound, temperature and light. (Science)
- Use a data logger to 'snap shot' a series of related but separate readings in the course of an appropriate investigation. (Science)

## Digital research - searching

- Use a range of child friendly search engines to locate different media, e.g. text, images or sound.
- Evaluate different search engines and explain their choices in using these for different purposes.
- Develop specific key questions and key words to search for information e.g., a question such as 'Where could we go on holiday?' would become a search for 'holiday destinations'.
- Consider the effectiveness of key questions on search results and refine where necessary.
- Use strategies to verify the accuracy and reliability of information, distinguishing between fact and opinion, e.g. cross checking with different websites or books.
- Use appropriate tools to save and retrieve accessed information, e.g. through the use of favourites, history, copy/paste and save as.
- Identify and cancel unwanted advertising, pop-ups and potentially malicious downloads by using the task manager function and NOT through buttons on the pop-up window, or the cross in the right hand corner.
- Know how to temporarily allow useful pop-ups from a website.
- Develop use of more advanced searching techniques, e.g., searching for a phrase using quotation marks to locate precise information.
- Choose the most appropriate search engine for a task, e.g., image search, search within a specific site or searching the wider internet.

## Data handling

- Understand that there are different types of data.
- Understand the need to structure information properly in a database.
- Know, understand and use the vocabulary: file, record, field, sort and search.
- Recognise similarities and differences between ICT and paper-based systems.
- Talk about the advantages of using IT to sort, interrogate and classify information quickly.
- Understand that effective yes / no questions are key to organising data efficiently in a branching database.
- Understand that there are different types of data, e.g. numeric, alphabetic, date, alphanumeric.
- Know that ICT can enable the creation of a variety of tables and graphs for different purposes.
- Understand some graphs and charts are more appropriate and easier to read than others.
- Begin to make choices about how to present data to solve a specific problem.
- Understand that dataloggers can be used to sense external and physical changes and subsequently collect data in a range of simple investigations. (Science)
- Understand that data can be collected more efficiently by a datalogging device compared with manual methods. (Science)
- Know that datalogging devices can be pre-programmed to collect data for a given time and on different triggers and remotely for a long period of time. (Science).

## Digital research - searching

- Talk about and describe the process of finding specific information, noting any difficulties during the process and how these were overcome
- Understand that information found as a result of a search can vary in relevance.
- Begin to recognise that anyone can author on the internet and sometimes web content is inaccurate or even offensive.
- Understand that provision is made in schools to filter
- Begin to understand the concept of copyright, e.g. what images, videos or sounds are legal and safe to use in their own work.
- Begin to understand the need to acknowledge sources of information.
- Understand when and where the internet can be used as a research tool.
- Know that Boolean search 'operators' can effect web searches

## Digital Literacy

## Programme of Study

- Use technology responsibly.
- Identify a range of ways to report concerns about contact.
- Identify a range of ways to report concerns about content.
- Recognise acceptable/unacceptable behaviour.
- Understand the opportunities computer networks offer for communication.

### Skills

#### Online safety

- Use technology responsibly.
- To create appropriate passwords.
- Keep passwords and personal data safe.
- Recognise acceptable behaviour.
- Recognise unacceptable behaviour.
- Be able to create a 'secure' password, e.g. combination of letters, symbols and numbers in accordance with the school's eSafety policies and procedures /AUP.
- Know what to do and who to tell if they discover something inappropriate or offensive on a website, at home and in school.

### Knowledge and Understanding

#### Online safety

- Know how to use technology responsibly.
- Understand that online actions can impact on other people.
- Understand the need to keep personal information and passwords private in order to protect themselves when communicating online.
- Know how to respond if asked for personal details or in the event of receiving unpleasant communications, e.g. saving the message and showing to a trusted adult –according to the school's eSafety policies and procedures /AUP.
- Understand the risks posed by the internet relating to contact e.g. bullying, grooming.
- Know a range of ways to report concerns about contact.
- Understand the risks posed by the internet relating to content e.g. violent and biased websites.
- Know a range of ways to report concerns about content.
- Understand the school's acceptable use policy.
- Understand what acceptable online behaviour is.
- Understand what unacceptable online behaviour is.
- Recognise that cyber bullying is unacceptable and will be sanctioned according to the school's eSafety policies and procedures /AUP.
- Know how to report an incident of cyber bullying if and when it occurs, according to the school's eSafety policies and procedures /AUP.
- Understand the risks involved in arranging to meet and subsequently meeting anybody from the online world in the offline world.
- Know what images are suitable to include in an online profile and ensure that appropriate permissions have been obtained, e.g. copyright or asking friends before uploading their images.
- Understand the need for certain rules of conduct particularly when using live forms of communication, e.g. chats and forums in the school's VLE, taking turns to speak when video conferencing.
- Know the school's rules for keeping safe online and be able to apply these beyond school.

### Electronic communication

- Use a range of digital tools to communicate, e.g. contributing to chats and/or discussion forums, in school's VLE, blog or text messages, making purposeful contributions to respond to another pupil's

### Electronic communication

- Understand that computer networks can be used for communication.

question or comment.

- Investigate the different styles of language, layout and format of different electronic communications and how these vary depending on the audience.
- Continue to use webcams and /or video conferencing as a class, if appropriate and available, e.g. with external providers, another class or school, or abroad as part of a wider topic.
- Begin to publish their work to a wider audience, e.g. using VLE or podcasting tools.

**Example - email**

- Log on to an email account, open emails, create and send appropriate replies.
- Forward an e-mail.
- Save an e-mail in draft format and then return and edit prior to sending.
- Attach different files to emails, e.g. text document, sound file or image.
- Open and save attachments to an appropriate place.
- Select an email recipient from a class address book.

- Understand the opportunities computer networks offer for communication.
- Know a range of ways that computer networks can be used for communication.
- Understand that some emails and other forms of electronic communications may be malicious or inappropriate and recognise when an attachment may be unsafe to open.
- Recognise the effect that content in their communications may have on others.
- Respect the ideas and communications of others they encounter online.
- Discuss the differences between online communication tools used in school and those used internet content, recognising this is possibly not the case on computers used at home at home, e.g., those 'blocked' through the school's filtering.

# Computer Science

## Programme of Study

- Work with various forms of input and output.
- Design and create programs that accomplish specific goals.
- Control or simulate physical systems.
- Use logical reasoning to detect and correct errors in programs.

Use sequence, repetition\* and selection\* in programs (\*next to a phrase or word e.g. **repetition** denotes a progression within that concept.)

## Skills

### Programming

- Write programs that accomplish specific goals.
- Read what a sequence in a program does.
- Work with various forms of input.
- Work with various forms of output.
- Use logical reasoning to predict outputs.
- Design programs, showing skills needed to plan and implement a task/problem that accomplish specific goals.
- Design programs showing appropriate planning and implementing skills.
- Create programs that implement algorithms to achieve specific goals.
- Debug programs that accomplish specific goals through self and peer assessment.
- Use sequence, repetition and selection in programs.
- Plan, test and evaluate programs that solve specific problems using a screen turtle or other programmable devices.
- Use sequences of commands to control physical devices using outputs.
- Demonstrate and develop a sense of audience when appropriate.
- Use and debug programs to control physical devices Note real or screen simulations could be used.
- Use logical reasoning to detect and correct errors in programs.

### Simulations and modelling

- Explore the effects of changing variables in models and simulations, asking 'What if?' questions.
- Make and test predictions.
- Use a pre-prepared spreadsheet to record data to answer questions and produce graphs.
- Use a pre-prepared spreadsheet to explore simple number patterns, e.g. multiples.
- Change the contents of cells in a pre-prepared spreadsheet and explore the consequences.

## Knowledge and Understanding

### Programming

- Understand how to plan and write programs that accomplish specific goals.
- Know a range of input devices and how they can be used.
- Know a range of output devices and how they can be used.
- Know the difference between an input and an output.
- Understand that computers can collect data from various inputs.
- Know what debugging is and how it can be used to achieve specific goals.
- Understand that planning is a vital part of designing programs.
- Understand that evaluation is a vital part of the design process.
- Understand what the terms sequence, repetition and selection mean and know how to use them in programs.
- Understand how to control physical devices.
- Be aware that everyday devices use sensors and outputs, e.g. automatic doors, traffic lights, intruder alarms.
- Understand how to use logical reasoning to detect errors in programs.
- Understand how to use logical reasoning to correct errors in programs.
- Understand that computers can collect data from various inputs.

### Simulations and modelling

- Understand how computer simulations can represent real or imaginary situations and how these can help in the wider world.
- Understand how computer simulations and spread-sheet models allow changes to be made quickly and easily in comparison with real life situations.
- Understand that changes made to one element of a spreadsheet can impact on other calculations

## Key Learning in Geography: Years 3 and 4

| Locational knowledge  | Place knowledge   | Human and Physical Geography   |
|---|---|--|
| <ul style="list-style-type: none"> <li>▪ Locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America.</li> <li>▪ Name and locate counties and cities of the United Kingdom.</li> <li>▪ Identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day and night).</li> </ul> | <ul style="list-style-type: none"> <li>▪ A region of the United Kingdom.</li> <li>▪ A region in a European country.</li> <li>▪ A region within North or South America.</li> </ul> | <ul style="list-style-type: none"> <li>▪ Describe and understand key aspects of:               <ul style="list-style-type: none"> <li>- <b>physical</b> geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle.</li> <li>- <b>human</b> geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water.</li> </ul> </li> </ul> |

### Skills

| Mapping   | Fieldwork   | Enquiry and Investigation  | Communication  | Use of ICT / technology  |
|---|---|--|--|--|
| <ul style="list-style-type: none"> <li>▪ Use a wider range of maps (including digital), atlases and globes to locate countries and features studied.</li> <li>▪ Use maps and diagrams from a range of publications e.g. holiday brochures, leaflets, town plans.</li> <li>▪ Use maps at more than one scale.</li> <li>▪ Recognise that larger scale maps cover less area.</li> <li>▪ Make and use simple route maps.</li> <li>▪ Recognise patterns on maps and begin to explain what they show.</li> <li>▪ Use the index and contents page of atlases.</li> <li>▪ Label maps with titles to show their purpose</li> <li>▪ Recognise that contours show height and slope.</li> <li>▪ Use 4 figure coordinates to locate features on maps.</li> <li>▪ Create maps of small areas with features in the correct place.</li> <li>▪ Use plan views.</li> <li>▪ Recognise some standard OS symbols.</li> <li>▪ Link features on maps to photos and aerial views.</li> <li>▪ Make a simple scaled drawing e.g. of the classroom.</li> <li>▪ Use a scale bar to calculate some distances</li> <li>▪ Relate measurement on large scale maps to measurements outside.</li> </ul> | <ul style="list-style-type: none"> <li>▪ Use the eight points of a compass.</li> <li>▪ Observe, measure and record the human and physical features in the local area using a range of methods including sketch maps, cameras and other digital devices.</li> <li>▪ Make links between features observed in the environment to those on maps and aerial photos.</li> </ul> | <ul style="list-style-type: none"> <li>▪ Ask more searching questions including, 'how?' and, 'why?' as well as, 'where?' and 'what?' when investigating places and processes</li> <li>▪ Make comparisons with their own lives and their own situation.</li> <li>▪ Show increasing empathy and describe similarities as well as differences.</li> </ul> | <ul style="list-style-type: none"> <li>▪ Identify and describe geographical features, processes (changes), and patterns.</li> <li>▪ Use geographical language relating to the physical and human processes detailed in the PoS e.g. tributary and source when learning about rivers.</li> <li>▪ Communicate geographical information through a range of methods including sketch maps, plans, graphs and presentations.</li> <li>▪ Express opinions and personal views about what they like and don't like about specific geographical features and situations e.g. a proposed local wind farm.</li> </ul> | <ul style="list-style-type: none"> <li>▪ Use the zoom facility on digital maps to locate places at different scales.</li> <li>▪ Add a range of text and annotations to digital maps to explain features and places.</li> <li>▪ View a range of satellite images</li> <li>▪ Add photos to digital maps.</li> <li>▪ Draw and follow routes on digital maps.</li> <li>▪ Use presentation/multimedia software to record and explain geographical features and processes.</li> <li>▪ Use spreadsheets, tables and charts to collect and display geographical data.</li> <li>▪ Make use of geography in the news – online reports &amp; websites.</li> </ul> |

## Key Learning in History: Years 3 and 4

| Chronology  | Events, People and Changes   | Communication  |
|---|--|--|
| <p>Show their increasing knowledge and understanding of the past by:</p> <ul style="list-style-type: none"> <li>Using specialist dates and terms, and by placing topics studied into different periods (<i>century, decade, Roman, Egyptian, BC, AD...</i>).</li> <li>Making <i>some</i> links between and across periods, such as the differences between clothes, food, buildings or transport.</li> <li>Identifying where some periods studied fit into a chronological framework by noting connections, trends and contrasts over time.</li> </ul>  | <p>Be able to describe some of the main events, people and periods they have studied by:</p> <ul style="list-style-type: none"> <li>Understanding <i>some</i> of the ways in which people's lives have shaped this nation.</li> <li>Describing how Britain has influenced and been influenced by the wider world.</li> <li>Understanding some significant aspects of history – nature of ancient civilisations; expansion of empires; characteristic features of non-European societies; achievements and follies of mankind.</li> </ul> | <ul style="list-style-type: none"> <li>Construct informed responses that involve thoughtful selection and organisation of relevant historical information.</li> <li>When doing this they should use specialist terms like <i>settlement, invasion</i> and vocabulary linked to chronology.</li> <li>Produce structured work that makes some connections, draws some contrasts, frame historically-valid questions involving thoughtful selection and organisation of relevant historical information using appropriate dates and terms.</li> </ul> |
| Enquiry, Interpretation and Using Sources   |  |  |
| <ul style="list-style-type: none"> <li>Understand <i>some</i> of the methods of historical enquiry, and how evidence is used to make detailed observations, finding answers to questions about the past.</li> <li>Use <i>some</i> sources to start devising historically valid questions about change, cause, similarity and difference, and significance.</li> <li>Understand some of the methods of historical enquiry, how evidence is used to make historical claims.</li> <li>Use sources as a basis for research from which they will begin to use information as evidence to test hypotheses.</li> </ul> |  | <ul style="list-style-type: none"> <li>Identify some of the different ways in which the past can be represented, and that different versions of the past such as an event <i>may</i> exist (<i>artist's pictures, museum displays, written sources</i>).</li> <li>Understand how our knowledge of the past is constructed from a range of different sources and that different versions of past events may exist, giving some possible reasons for this.</li> </ul>  |

## Key Learning in Art and Design: Years 3 and 4

### Exploring and Developing Ideas

- Select and record from first hand observation, experience and imagination, and explore ideas for different purposes.
- Question and make thoughtful observations about starting points and select ideas to use in their work.
- Explore the roles and purposes of artists, craftspeople and designers working in different times and cultures.

### Evaluating and Developing Work

- Compare ideas, methods and approaches in their own and others' work and say what they think and feel about them.
- Adapt their work according to their views and describe how they might develop it further.
- Annotate work in journal.

### Drawing

- Experiment with ways in which surface detail can be added to drawings.
- Use journals to collect and record visual information from different sources.
- Draw for a sustained period of time at an appropriate level.

#### Lines and Marks

- Make marks and lines with a wide range of drawing implements e.g. charcoal, pencil, crayon, chalk pastels, pens etc.
- Experiment with different grades of pencil and other implements to create lines and marks.

#### Form and Shape

- Experiment with different grades of pencil and other implements to draw different forms and shapes.
- Begin to show an awareness of objects having a third dimension.

#### Tone

- Experiment with different grades of pencil and other implements to achieve variations in tone.
- Apply tone in a drawing in a simple way.

#### Texture

- Create textures with a wide range of drawing implements.
- Apply a simple use of pattern and texture in a drawing.

### Digital Media

- Record and collect visual information using digital cameras and video recorders.
- Present recorded visual images using software.
- Use a graphics package to create images and effects with; **lines** by controlling the brush tool with increased precision.
- Change the type of brush to an appropriate style.
- Create **shapes** by making selections to cut, duplicate and repeat.
- Experiment with **colours and textures** by using effects and simple filters to manipulate and create images for a purpose.

### Painting

- Experiment with different effects and textures including blocking in colour, washes, thickened paint creating textural effects.
  - Work on a range of scales e.g. thin brush on small picture etc.
  - Create different effects and textures with paint according to what they need for the task.
- #### Colour
- Mix colours and know which primary colours make secondary colours.
  - Use more specific colour language.
  - Mix and use tints and shades.

### Printing

- Create printing blocks using a relief or impressed method.
- Create repeating patterns.
- Print with two colour overlays.

### Textiles

- Use a variety of techniques, e.g. printing, dyeing, weaving and stitching to create different textural effects.
- Match the tool to the material.
- Develop skills in stitching, cutting and joining.
- Experiment with paste resist.

### 3-D

- Plan, design and make models from observation or imagination.
- Join clay adequately and construct a simple base for extending and modelling other shapes.
- Create surface patterns and textures in a malleable material.
- Use papier mache to create a simple 3D object.

### Collage

- Experiment with a range of collage techniques such as tearing, overlapping and layering to create images and represent textures.
- Use collage as a means of collecting ideas and information and building a visual vocabulary.

Advised curriculum coverage maximum three media per year

## Key Learning in Design and Technology: Years 3 and 4



| Design  |  | Make   | Evaluate  |
|---|--|--|---|
| <ul style="list-style-type: none"> <li>Develop more than one design or adaptation of an initial design.</li> <li>Plan a sequence of actions to make a product.</li> <li>Record the plan by drawing using annotated sketches.</li> <li>Begin to use cross-sectional and exploded diagrams.</li> <li>Use prototypes to develop and share ideas.</li> <li>Think ahead about the order of their work and decide upon tools and materials.</li> <li>Propose realistic suggestions as to how they can achieve their design ideas.</li> <li>Consider aesthetic qualities of materials chosen.</li> <li>Use CAD where appropriate.</li> </ul> |  | <ul style="list-style-type: none"> <li>Prepare pattern pieces as templates for their design.</li> <li>Cut slots.</li> <li>Cut internal shapes.</li> <li>Select from a range of tools for cutting shaping joining and finishing.</li> <li>Use tools with accuracy.</li> <li>Select from techniques for different parts of the process.</li> <li>Select from materials according to their functional properties.</li> <li>Plan the stages of the making process.</li> <li>Use appropriate finishing techniques.</li> </ul> | <ul style="list-style-type: none"> <li>Investigate similar products to the one to be made to give starting points for a design.</li> <li>Draw/sketch products to help analyse and understand how products are made.</li> <li>Research needs of user.</li> <li>Identify the strengths and weaknesses of their design ideas in relation to purpose/user.</li> <li>Decide which design idea to develop.</li> <li>Consider and explain how the finished product could be improved.</li> <li>Discuss how well the finished product meets the design criteria of the user.</li> <li>Investigate key events and individuals in Design and Technology.</li> </ul> |
| Food  | Textiles   | Structures   | Mechanical and Electrical Systems and ICT   |
| <ul style="list-style-type: none"> <li>Develop sensory vocabulary/knowledge using, smell, taste, texture and feel.</li> <li>Analyse the taste, texture, smell and appearance of a range of foods (predominantly savoury).</li> <li>Follow instructions/recipes.</li> <li>Make healthy eating choices – use the <i>Eatwell plate</i>.</li> <li>Join and combine a range of ingredients.</li> <li>Explore seasonality of vegetables and fruit.</li> <li>Find out which fruit and vegetables are grown in countries/continents studied in Geography.</li> <li>Develop understanding of how meat/fish are reared/caught.</li> </ul>       | <ul style="list-style-type: none"> <li>Develop vocabulary for tools materials and their properties.</li> <li>Understand seam allowance.</li> <li>Join fabrics using running stitch, over sewing, blanket stitch.</li> <li>Prototype a product using J cloths.</li> <li>Use prototype to make pattern.</li> <li>Explore strengthening and stiffening of fabrics.</li> <li>Explore fastenings (inventors?) and recreate some.</li> <li>Sew on buttons and make loops.</li> <li>Use appropriate decoration techniques.</li> </ul> | <ul style="list-style-type: none"> <li>Develop vocabulary related to the project.</li> <li>Create shell or frame structures.</li> <li>Strengthen frames with diagonal struts.</li> <li>Make structures more stable by giving them a wide base.</li> <li>Measure and mark square section, strip and dowel accurately to 1cm.</li> </ul>   | <ul style="list-style-type: none"> <li>Develop vocabulary related to the project.</li> <li>Use mechanical systems such as gears, pulleys, levers and linkages.</li> <li>Incorporate a circuit into a model.</li> <li>Use electrical systems such as switches bulbs and buzzers.</li> <li>Use ICT to control products.</li> <li>Use lolly sticks/card to make levers and linkages.</li> <li>Use linkages to make movement larger or more varied.</li> </ul>  |

## Key Learning in Music: Years 3 and 4



| Performing   | Listening   | Creating   | Knowledge and Understanding  |
|--|---|--|--|
| <ul style="list-style-type: none"> <li>▪ Sing songs, speak chants and rhymes in unison and two parts, with clear diction, control of pitch, a sense of phrase and musical expression.</li> <li>▪ Play tuned and untuned instruments with control and rhythmic accuracy.</li> <li>▪ Practise, rehearse and present performances with an awareness of the audience.</li> </ul> | <ul style="list-style-type: none"> <li>▪ Listen with attention to a range of high quality live and recorded music, to detail and to internalise and recall sounds with increasing aural memory.</li> <li>▪ Experience how the combined musical elements of pitch, duration, dynamics, tempo, timbre, texture and silence can be organised within musical structures (for example, ostinato) and used to communicate different moods and effects.</li> <li>▪ Experience how music is produced in different ways (for example, through the use of different resources, including ICT) and described through relevant established and invented notations.</li> <li>▪ Know how time and place can influence the way music is created, performed and heard (for example, the effect of occasion and venue).</li> </ul> | <ul style="list-style-type: none"> <li>▪ Improvise and develop rhythmic and melodic material when performing.</li> <li>▪ Explore, choose, combine and organise musical ideas within musical structures.</li> </ul> | <ul style="list-style-type: none"> <li>▪ Analyse and compare sounds.</li> <li>▪ Explore and explain their own ideas and feelings about music using movement, dance, expressive language and musical vocabulary.</li> <li>▪ Improve their own and others' work in relation to its intended effect.</li> <li>▪ Use and understand staff and other musical notations.</li> <li>▪ Develop an understanding of the history of music.</li> </ul> |

### Musical Elements

| Pitch  | Duration  | Dynamics   | Tempo  | Timbre  | Texture   | Structure  |
|--|---|--|--|---|---|--|
| <ul style="list-style-type: none"> <li>▪ Determine upwards and downwards direction in listening, performing and moving.</li> <li>▪ Recognise and imitate melody patterns in echoes.</li> <li>▪ Show the overall contour of melodies as moving upwards, downwards or staying the same.</li> <li>▪ Determine movement by step, by leaps or by repeats.</li> <li>▪ Perform simple melody patterns.</li> </ul> | <ul style="list-style-type: none"> <li>▪ Indicate the steady beat by movement, including during a silence.</li> <li>▪ Respond to changes in the speed of the beat.</li> <li>▪ Respond to the strong beats whilst singing.</li> <li>▪ Use instruments to keep a steady beat.</li> <li>▪ Hold a beat against another part.</li> </ul> | <ul style="list-style-type: none"> <li>▪ Recognise differences in dynamic levels.</li> </ul> | <ul style="list-style-type: none"> <li>▪ Identify the differences between fast and slow tempos.</li> <li>▪ Identify the tempo of music as fast, moderate, slow, getting faster or getting slower.</li> </ul> | <ul style="list-style-type: none"> <li>▪ Describe and aurally identify the tone colours of instruments.</li> <li>▪ Compare instrumental tone colour.</li> </ul> | <ul style="list-style-type: none"> <li>▪ Recognise the difference between thick (<i>many sounds</i>) and thin (<i>few sounds</i>) textures.</li> <li>▪ Recognise changes in texture.</li> <li>▪ Identify the melodic line in a texture.</li> <li>▪ Recognise rhythm on rhythm in music.</li> <li>▪ Recognise the difference between unison (<i>one same pitched sound</i>) and harmony (<i>various pitched sounds at the same time</i>).</li> </ul> | <ul style="list-style-type: none"> <li>▪ Recognise call and response form.</li> <li>▪ Differentiate between the contrasting sections of a song.</li> <li>▪ Recognise the difference between the verse and refrain of a song.</li> <li>▪ Recognise binary (<i>one melody labeled 'A' is followed by a new melody labeled 'B' = AB melody form</i>) and ternary (<i>one melody labeled 'A' is followed by a new melody labeled 'B' which then goes <u>back</u> to melody A = ABA melody form</i>) form.</li> </ul> |

## Key Learning in PSHE: Years 3 and 4



| Understanding Self and Others   | Working With Others  | Speaking and Listening  | Negotiation   | Compassion and Empathy  | Body Language - Verbal and Non-Verbal  |
|---|--|---|---|---|--|
| <ul style="list-style-type: none"> <li>▪ Recognise their own likes / dislikes, traits and individual preferences.</li> <li>▪ Recognise other people's likes / dislikes, traits and preferences.</li> </ul>  | <ul style="list-style-type: none"> <li>▪ Demonstrate that they can work in a pair and a small group.</li> </ul>  | <ul style="list-style-type: none"> <li>▪ Demonstrate active listening skills.</li> <li>▪ Speak in front of others.</li> </ul>   | <ul style="list-style-type: none"> <li>▪ Negotiate in small groups.</li> <li>▪ Coming to a 'consensus'.</li> </ul>  | <ul style="list-style-type: none"> <li>▪ Demonstrate compassion, empathy and tolerance.</li> </ul>              | <ul style="list-style-type: none"> <li>▪ Recognise simple body language.</li> <li>▪ Understand verbal and non-verbal communication.</li> <li>▪ Demonstrate speaking and listening skills.</li> </ul> |
| Assertiveness   | Making Choices   | Risk Taking   | Influences  | Making Decisions  |  |
| <ul style="list-style-type: none"> <li>▪ Understand the skill and can put it into practice.</li> <li>▪ Speak using the assertive 'I'.</li> <li>▪ Know that it is OK to make mistakes.</li> <li>▪ Say 'No' and mean it.</li> <li>▪ Ask for time to think things over.</li> </ul> | <ul style="list-style-type: none"> <li>▪ Understand that they have choices.</li> <li>▪ Identify points of choice.</li> <li>▪ Explore factors which influence choosing.</li> <li>▪ Make more informed choices.</li> </ul> | <ul style="list-style-type: none"> <li>▪ Understand that accidents happen and we don't always have to blame someone but we need to consider what the risks are before we do something.</li> <li>▪ Risk taking can be good when it means trying something new that we might like.</li> </ul> | <ul style="list-style-type: none"> <li>▪ Recognise the influences over choice and decisions, both internal and external.</li> <li>▪ Understand where they can get help if something feels uncomfortable or if someone is trying to influence them in a negative way.</li> </ul> | <ul style="list-style-type: none"> <li>▪ Demonstrate that they know the process for decision making.</li> </ul> |  |