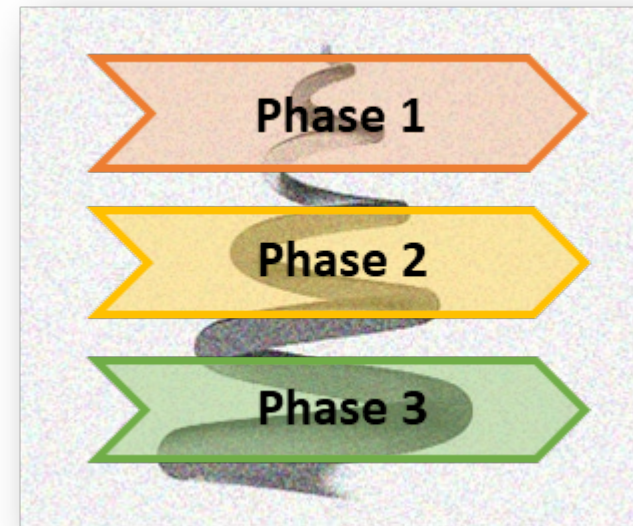


BA Primary & Early Years Curriculum





Contents Page

[Art & Design](#) [Phase 1](#) [Phase 2](#) [Phase 3](#)

[Computing](#) [Phase 1](#) [Phase 2](#) [Phase 3](#)

[Design & Technology](#) [Phase 1](#) [Phase 2](#) [Phase 3](#)

[English](#) [Phase 1](#) [Phase 2](#) [Phase 3](#)

[Foreign Languages](#) [Phase 1](#) [Phase 2](#) [Phase 3](#)

[Geography](#) [Phase 1](#) [Phase 2](#) [Phase 3](#)



[History](#)

[Phase 1](#)

[Phase 2](#)

[Phase 3](#)

[Maths](#)

[Phase 1](#)

[Phase 2](#)

[Phase 3](#)

[Music](#)

[Phase 1](#)

[Phase 2](#)

[Phase 3](#)

[Physical Education](#)

[Phase 1](#)

[Phase 2](#)

[Phase 3](#)

[Religious Education](#)

[Phase 1](#)

[Phase 2](#)

[Phase 3](#)

[Science](#)

[Phase 1](#)

[Phase 2](#)

[Phase 3](#)



Art and Design

PHASE 1	I have learned how to.....
I have learned that:	
<p>The National Curriculum Programme of Study for Art and Design has 4 overarching aims (ideas, make, evaluate, knowledge) and that these underpin planning, teaching and assessment in Key Stages 1 and 2. That subject content includes: materials, processes, visual elements and contextual understanding</p>	<p>Use the aims/ content of the KS1 and KS2 POS to support planning and teaching of Art and Design</p>
<p>The most relevant statements for Art and Design in EYFS are taken from the following Areas of Learning: Expressive Arts and Design (ELGs Creating with Materials, Being Imaginative and Expressive) & Physical Development (ELG Fine Motor Skills)</p>	<p>Use the Areas of Learning and Early Learning Goals most relevant to Art and Design to support planning and teaching.</p>
<p>Mark making can be applied on different surfaces with different tools. It supports children’s early drawing and drawing outcomes.</p>	<p>Plan/Teach activities that support and develop: Mark making in response to different stimuli Use of thoughtful and gestural mark making</p>

<p>It supports the communication of their emotions and thinking, the development of their ideas and individuality. It develops their fine and gross motor skills and hand/eye coordination. It can be gestural, purposeful and experimental.</p>	<p>Expressing and communicating emotion through mark making/ drawing Fine motor control</p>
<p>Drawing supports children’s capacities for perception, communication, invention, action</p>	<p>Plan/Teach activities that support the development of drawing: Drawing warm-ups Exploration of tone Drawing from observation</p>
<p>The seven elements of art (space, shape, colour, form, line, tone, texture) are the building blocks of art. Meanings, ideas and intentions can be communicated through visual and tactile language using the formal elements of art</p> <p>The principles of art (movement, rhythm, pattern, emphasis, balance, unity, harmony, variety, contrast) are how children can apply the elements of art in their art making.</p>	<p>Plan/Teach activities that support the development of children’s knowledge of: Colour theory Using art processes of collage, paint and mark making (mixed media) to respond to an artist’s work (focusing upon the elements of shape and colour, principles of movement and rhythm)</p> <p>Use examples of abstract art to develop children’s understanding of the application of colour and shape, and as an inspiration for their own artwork.</p>
<p>That the learning environment will have an impact on the progress and behaviour of all pupils when they are developing ideas and making art. It is the role of the teacher to plan what the children will learn and how, and to organise and adapt resources and the learning space (including spaces outside of the classroom) for the needs of the children in their class</p>	<p>Carefully consider the organisation of resources and structure of Art and Design lessons based on what the children will be learning, where they will be learning and how (e.g. working experimentally, teacher modelling, guided teaching, gathering ideas)</p>
<p>In Early Years’ art children learn by leading their own play, and by taking part in play or focused activity which is guided by adults.</p>	<p>Plan activities to support mark making/ control of tools and exploration of media and materials</p>
<p>That children learn in Art and Design through a combination of process led learning (experimenting/ exploring) and teacher modelling and that this is</p>	<p>Consider when modelling needs to be used and why, and how it supports children’s learning and progression.</p>



<p>underpinned by a constructivist theoretical approach. This helps develop their disciplinary knowledge (understanding of how artist's work)</p>	<p>That in a sequence of Art and Design lessons children need time to experiment and explore with tools, material and media</p>
<p>Art and Design supports and develops children's cognitive, social, emotional, physical, creative development</p>	<p>Plan activities that support and develop: Expressing and communicating emotion through mark making/ drawing Individual responses to secondary sources Fine motor control</p>
<p>When planning a sequence of Art and Design lesson teachers need to consider: Children's prior learning. What will they need to know about or more about? What will they need to be able to do/ do better? What will they need to be able to understand or understand more about?</p>	<p>Plan for a learning sequence within a single lesson (EYFS or KS1/2) considering: Guided and independent practice Resources Key vocabulary and questions Begin to consider adaptive teaching and formative assessment</p>

[Home](#)



PHASE 2	I have learned how to.....
I have learned that:	
<p>Different models of progression can be used to plan and teach Art and Design dependent on what/how the children will learn.</p> <p>When planning a sequence of Art and Design lesson teachers need to consider:</p> <p>Children’s prior learning.</p> <p>What will they need to know about or more about?</p> <p>What will they need to be able to do/ do better?</p> <p>What will they need to be able to understand or understand more about?</p>	<p>Plan for a sequence of Art and Design lessons.</p> <p>Identify potential misconceptions and plan to avoid these/identify and address misconceptions which may arise</p> <p>Assess pupils’ knowledge and understanding and identify next steps in learning</p> <p>Adapt teaching to ensure all children are able to access learning and make progress.</p>
<p>Using the work of artists, craftspeople and designers can provide children with inspiration for their own making; can develop their ability to think critically, to talk and about art and to deepen their knowledge and understanding of art.</p>	<p>Plan activities that develop children’s knowledge and understanding of art, craft and design by evaluating and analysing art and craft works.</p> <p>Use questions and prompts to support children and include any specific vocabulary needed to discuss the work.</p>
<p>Progress in art and design is assessed through a variety of means and uses different kinds of evidence. Consideration needs to be given to the quality of the products that children make, the ideas they develop, the skills/ knowledge they exhibit as they use tools, media and processes, and their knowledge of the world of art, craft and design.</p>	<p>Use a range of formative strategies to assess children’s progress in Early art/ Art and Design.</p> <p>Consider types of evidence which can be used to make a summative judgement of children’s progress in Early art/ Art and Design</p>
<p>Learning and development goals in Art and Design need to be accessible and inclusive for all learners. Potential barriers to learning for individuals</p>	<p>Adapt teaching in an Art and Design lesson according to the needs of child/ren (SEND/ EAL).</p> <p>Examples of adaptive teaching include:</p>



<p>should be anticipated alongside a pathway to ensure these children can actively participate in the best possible way.</p>	<p>teacher modelling of exploration and experimentation, teacher modelling of an art process, use of tools, use of instructional prompts (visual or text), verbal reminders, exemplar art works, adapted mediums or tools and consideration of working environment.</p>
<p>Children need to time to explore and experiment so they can develop their own ideas and become familiar with the properties of the materials and tools they will be using in their making. Giving children time to practice with materials, media and tools enables teachers to identify any misconceptions, to check understanding and provide support as needed.</p>	<p>Plan/teach activities to support and develop children’s knowledge of: Printing techniques, tools and materials The properties of clay, techniques and tools for building and creating art and craft works with clay</p>
<p>That sketchbooks are a space for children to develop their own ideas, experiment, demonstrate their understanding of art processes, knowledge of art and evidence their evaluations.</p>	<p>Plan in opportunities for children to record different stages of their art learning journey and to acknowledge that the process towards an outcome is just as important as the final outcome</p>

[Home](#)

PHASE 3	I have learned how to.....
I have learned that:	
For art and design to be integrated into the curriculum an effective interdisciplinary connection has to be made.	Plan collaboratively for purposeful curriculum integration of Art and Design, which leads to progression and deepening of subject knowledge.
Creative approaches can foster the development of children’s cognitive, physical, social and emotional development	Carefully consider the intent when planning for creative and purposeful learning in Art and Design/ early art
That digital technology can: Provide different processes for developing ideas and making in art. Expand the range of tools available for children’s artistic exploration and output.	Plan/ teach activities that support and develop children’s use of: Tools for digital drawing and painting Software for editing and enhancing photographs Tools for creating stop frame animation
Art as critical practice provides opportunities to explore how artists engage in their society and explore key issues, debates and controversies of their period.	Introduce contemporary artworks in order to develop children’s contextual understanding of art, their critical evaluation and personal response
Animation can develop children’s artistic/ technological skills specific to animation, their planning and language skills, and their creative skills.	Plan/ teach activities that support and develop children’s knowledge of: Stop frame animation
Photography can enable children to develop their visual, spatial awareness and to communicate their ideas, thoughts and feelings	Plan/ teach activities that develop children’s photographic skills (composition, perspective, lighting, colour) and to use photographs to capture subject matter and to represent ideas, thoughts and feelings



COMPUTING

PHASE 1	I have learned how to.....
I have learned that:	
<p>... there are three strands to the Computing Curriculum:</p> <ul style="list-style-type: none"> - Computer Science (coding) - IT (what we used to do all the time – creative expression through digital media) - Digital Literacy (How to use technologies effectively- including creating, storing, sharing, collaborating etc.) <p>Beebots and other digital devices are very useful when delivering the KS1 elements of the CS curriculum</p> <p>Scratch Junior and Scratch are widely used in schools when delivering the CS elements of the KS1&2 curricula such as sequence/selection and repetition</p>	<p>Access the Computing curriculum and have a good understanding of the requirements of the content and what should be taught throughout KS1 & KS2</p> <p>Code an algorithm into a Beebot or other digital device:</p> <ul style="list-style-type: none"> - Make predictions about the algorithm - Debug algorithms - Set and answer questions in Beebot code – use context mats <p>Code animations in Scratch & Scratch Jr. (programming) so that the following happens (sequence/selection/repetition):</p> <ul style="list-style-type: none"> - A character moves/speaks - A background is transitioned - A repetition loop is performed
<p>... what is 'reputable' for academic purposes when referring to information (e.g. on the question relating to 'screen time and young children') – and what may not be considered 'reputable'.</p>	<p>Perform low-risk research online (advice on v young children and screen time) and refine their search terms</p>



<p>Understand that the internet hosts a wealth of information and that some information is more reputable than others</p>	<p>Play with advanced search settings to further refine their searches</p> <p>Consider what is 'reputable' when making reference to information on questions such as those relating to 'screen time and young children'.</p> <p>Approach a conversation with a parent – what might they advise them based on current 'scientific' understanding of 'screen time and effects on young children'.</p>
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[Home](#)

<h2 style="margin: 0;">PHASE 2</h2>	<p>I have learned how to.....</p>
<p>I have learned that:</p>	
<p>Learn that Secure Computing knowledge is based on a knowledge of the frameworks for teaching the National Curriculum for Computing.</p> <p>There are online sites to support the teaching of dealing with DL themes such as hoaxes, misinformation and online abuse.</p> <p>There are recognised 'SMART' rules to help children be safe online.</p> <p>Computing concepts can be taught through 'unplugged' activities.</p> <p>Loops greatly reduce the number of steps required in a program and avoid repetitive phrasing.</p>	<p>Prepare and deliver a Digital Literacy session on E-Safety for delivery as part of a lesson or assembly of children while on placement</p> <p>Know the SMART rules for DL and be prepared and able to foster these behaviours when in school</p> <p>Teach computational thinking concepts through unplugged activities –</p> <p>Use loops, nested loops within Scratch environment and unplugged activities</p> <p>Design, write and debug programs that accomplish specific goals, solve problems by decomposing them into smaller parts</p> <p>Use sequence, selection, and repetition in programs</p>



<p>Computing is an important element of the NC and part of the entitlement of children – the importance of the creative process within Computing and a useful skill for the 21st Century</p>	
<p>Computing works well in making Cross-Curricular links with other Computing and can be done through projects</p> <p>Scratch can be used for animations and drawings to support a wide variety of Cross curricular work</p> <p>There is an argument for getting children to work on Projects with their peers (Resnick, M 2017) – links to CC learning approach</p> <p>We can use modern construction kits (e.g. Lego Wedo 2.0) to cover certain elements of the curriculum – ‘use sequence, selection, and repetition in programs; work with various forms of input and output’</p>	<p>The students know how to use Broadcast and receive to plan a conversation within Scratch which they can apply to any Computing/topic/theme and plan some CC work with 2 LOs</p> <p>The students can use Excel to create spreadsheets and produce graphs of data which they can use within science lessons and meet those requirements of working with data.</p> <p>If the school has robotic kit, the students should have the confidence to work with an OOH group on this and work with different forms of input and output</p>

[Home](#)

<h2>PHASE 3</h2>	<p>I have learned how to.....</p>
<p>I have learned that:</p>	
<p>Virtual and Augmented reality are now options for classroom activities.</p> <p>QR codes can help when children are researching information and make learning more active.</p>	<p>... use AR and VR within a classroom setting and consider the possibilities for their own settings given a set of iPads or access to VR headsets (or Google Cardboard or equivalent with Parents’ phones as part of a focus week)</p>



Learn how to collaborate on a task – sharing responsibilities and roles as part of working with technologies (e.g. Office 365) and their peers to develop content and ideas for their curriculum maps and possible technologies suitable for use in the classroom – e.g. QR codes, VR/AR/Digital cameras/sound recorders etc.

Learn that Cross-Curricular and thematic/project/ problem-based learning are founded on well-documented successes and to be considered when planning, esp. within Computing & the foundation subjects – (Barnes 2015)

...use communication & collaboration skills through shared work on Office 365

... use QR code generators to create QR codes which will perform part of their planned lessons
e.g. <https://www.qr-code-generator.com/>
OR
<https://www.the-qr-code-generator.com/>
OR
[via Office Add-ins:- QR4Office](#) or Right-clicking on images on the WWW

Work with peers and plan/meet/collaborate etc. using IT skills for a thematic/CC approach to teaching, incorporating several foundation subjects.

[Home](#)



DESIGN AND TECHNOLOGY

PHASE 1	I have learned how to.....
I have learned that:	
<p>All the National Curriculum requirements for D&T at KS1 and KS2 and the links to the EYFS frameworks.</p> <p>D&T is taught with a Design and Technology specific pedagogy through design and make projects which are underpinned by established learning theories.</p> <p>Structures: the inclusion of triangles in frame structures maximises their rigidity and stability.</p> <p>Textiles: how to join fabric pieces with basic hand stitches.</p> <p>Mechanisms: mechanisms are systems with moving parts</p> <p>Food: food technology focuses on food origins and healthy eating within design and make projects</p>	<p>Teach children how to make simple moving pictures with a range of simple mechanisms.</p> <p>Enable children to discover the strength of triangles in frame structures.</p> <p>Teach children basic hand-stitching techniques to make simple products with a user and purpose in mind.</p> <p>Teach children basic hygiene and culinary skills to design and create healthy dishes.</p> <p>Access a range of online resources to support teaching and learning in D&T</p>
<p>D&T is an important aspect of the curriculum which is essential to the prosperity of the nation.</p> <p>How the 3-stage process is underpinned by established learning theories.</p> <p>Technical creativity can be facilitated by teaching a range of skills and providing a range of tools and materials from which children can choose</p>	



How to plan and deliver a D&T lesson within the 3-stage process focusing on structure, simple mechanisms, textiles or food.

[Home](#)

PHASE 2	I have learned how to.....
I have learned that:	
<p>Resistant materials can be shaped and joined.</p> <p>Levers and linkages can create moving images.</p> <p>There are two different solutions to create working wheels and axles.</p> <p>Simple electric circuits can be used to create a self-propelling vehicle.</p> <p>The design and technology Progression Framework can support planning and assessment</p>	<p>Teach children how to use hand tools to shape and join resistant materials.</p> <p>Teach children a range of combinations of levers and linkages to achieve different outputs.</p> <p>Plan individual D&T lessons within the framework of the 3-stage process and considering the 6 design principles.</p> <p>Teach children how to build a self-propelling vehicle as a basis for their own designs.</p>
<p>Specific tools are appropriate for primary age children to use and how to use them safely and efficiently.</p> <p>Manually operated levers and linkages can be combined to achieve a range of different outputs</p> <p>There are practical implications and common issues associated with constructing series and parallel circuits.</p>	



Pulley wheels and drive belts transfer rotational movement from one place to another.

[Home](#)

PHASE 3	I have learned how to.....
I have learned that:	
There are differences between teaching creatively and teaching for creativity.	
There are accessible online resources to enhance subject knowledge directly related to a range of exemplar medium-term plans	
It is important for children to develop creative thinking skills.	
Lessons and units of work should include opportunities for pupil choices and decisions.	Work collaboratively to create medium term plans for D&T which encourage children to think creatively.
The finer points of D&T pedagogy (iterative process and tinkering) sit within the 3-stage process	Plan for a more sophisticated pedagogical approach.
	Use the Projects on a Page format to plan D&T units of work

[Home](#)



ENGLISH

PHASE 1	I have learned how to.....
I have learned that:	
<p>Introduction</p> <p>Key research, government policy and theory underpin current practice.</p> <p>The national statutory frameworks and non-statutory guidance inform and support teaching and learning.</p> <p>(NC (2013) and EYFS (2021), overview of Equality Act 2010 and Curriculum Research Review (Ofsted, 2022). Non statutory documentation: The Reading Framework (2022); Teaching the Foundations of Literacy (DfE,2021) section 1 Reading The Independent review of the Teaching of Early Reading (Rose, 2006)</p>	<p>Use the statutory frameworks and non-statutory guidance to support planning.</p> <p>Begin to relate key research, government policy and theory when observing colleagues (NC, EYFS Framework, Reading Framework, Curriculum Research Review).</p>
<p>Subject Knowledge</p> <p>Secure English grammar, punctuation subject knowledge supports children’s learning. (ATs complete an English audit and action plan to develop their English subject knowledge)</p> <p>Children need to be taught grammar and punctuation and then apply this in context. (Word classes, adjectives, direct speech, adverbial phrases, relative clauses)</p>	<p>Teach grammar (word classes, adjectives, direct speech, adverbial phrases, relative clauses) to support children’s learning.</p>
Speaking and Listening Part 1	



<p>Talk is integral to children’s learning. (ATs explore the work of Neil Mercer, Cambridge Oracy project/Voice 21: exploratory and presentational talk) Talking Partners is a powerful tool to support children’s learning but needs to be structured and purposeful (creating ground rules for paired talk)</p>	<p>Use talking partners to support children’s language development and other areas of English</p>
<p>Speaking and Listening Part 2</p> <p>Talk is integral to children’s learning.</p> <p>Group work is a powerful tool to support children’s learning but needs to be structured and purposeful. (Creating ground rules for purposeful group work, strategies for talk e.g., talk partners, different ways to group children to promote group discussions, freeze-frames, hot seating, telephone)</p>	<p>Use group work to support children’s language development and other areas of English</p>
<p>Reading</p> <p>Reading for Pleasure is a key component of the teaching of reading. (Cremin et al, 2014, Teachers as readers research, importance of developing a secure subject knowledge of children’s literature)</p> <p>There are different strategies to develop children’s reading (e.g, phonics, shared, guided, whole class, independent)</p> <p>Guided reading and focused questioning can be a powerful tool to teach children reading (high quality texts and questioning to develop comprehension (clarify, infer, evaluate meaning)</p>	<p>Promote reading for pleasure in the classroom by sharing stories with children.</p> <p>Use questioning in a whole class or guided reading session to support children’s learning.</p>
<p>Phonics</p> <p>SSP underpins the statutory curriculum requirements for the teaching of early reading (The Reading Framework, 2022)</p>	<p>Systematic Synthetic Phonics (SSP) underpins the statutory curriculum requirements for the teaching of early reading</p>



<p>Secure knowledge of terminology underpins the teaching of SSP (correct articulation, phoneme, grapheme, digraph, trigraph, segment, blend)</p> <p>There is a sequence of learning (Review, teach, practise, apply)</p> <p>There are some key principles to reaching phonics (Pure sounds, use of terminology, 4-part lesson)</p>	<p>Use key policy documents to help support the development of secure of terminology used in the teaching of phonics and that underpins the teaching of SSP</p> <p>To use validated phonics materials to develop an understanding of how phonics teaching and learning is progressive and develops through a sequence of stages.</p>
<p>Writing</p> <p>Shared writing is an effective tool to support children’s writing. (There are 3 stages: modelled, collaborative, supported writing)</p> <p>Talk is the foundation of writing.</p> <p>An inclusive and engaging writing environment can support children’s writing (choice of high-quality inclusive texts, classroom displays, vocabulary-rich environments, reading areas etc.,)</p>	<p>Use shared writing to support pupils to write effectively.</p> <p>Use talk to support writing. For example, the oral rehearsal of sentences.</p> <p>Create an inclusive and engaging writing environment, for example by displaying relevant books in the classroom/book corner.</p>
<p>Text Types and Genres</p> <p>There are different types of fiction that may utilise different structures and language features (narrative, poetry, e.g., traditional tales, fables, myths, legends, science fiction)</p> <p>There are different types of non-fictions that have different structures and language features. (Persuasion, non-chronological, recounts, discussion, instructional, persuasive, explanation)</p> <p>There are different features of narrative writing (e.g., plot, setting, character)</p>	<p>Teach children to differentiate between non-fiction and fiction and the different text types within these.</p>



<p>There's a teaching sequence for writing (familiarisation, capturing ideas, teacher modelling, teacher scribing, supported writing, independent writing)</p>	
<p>Poetry</p> <p>Poetry has a key role in the area of children's literature. (Supports listening and reading skills, focus on rhyme supports exploration of different graphemes and how children can explore and play with language)</p> <p>Performance poetry can support children's talk and other areas of learning in speaking listening, reading, comprehension, spelling and writing.</p>	<p>Apply my knowledge and growing appreciation of poets and poetry in the primary classroom to support children's learning.</p> <p>Use performance poetry to support children's learning in English.</p>
<p>Assignment</p> <p>Continued engagement with professional development and secure subject knowledge is integral to teaching</p>	<p>Reflect own knowledge and development needs for example to reflect upon identified needs and targets.</p>

[Home](#)

<p>PHASE 2</p>	<p>I have learned how to.....</p>
<p>I have learned that:</p>	
<p>Introductory session</p> <p>Teachers need a secure subject knowledge of reading to teach reading skills effectively. (Review ESK action plan and ToR)</p> <p>Continued reflection on English subject knowledge is essential.</p>	<p>Apply critical reading to support effective classroom practice in the teaching of phonics and early reading.</p>



<p>Continuing to use critical reading will enhance understanding and develop confidence for teaching English (criticality is now part of the assessment criteria)</p>	
<p>Speaking and Listening</p> <p>Speaking and listening strategies can develop vocabulary and comprehension skills. (Revisit Neil Mercer and exploratory talk; Robin Alexander and dialogic teaching/ The third turn: extend paired talk and group work)</p>	<p>Use speaking and listening strategies to develop word vocabulary and comprehension skills.</p> <p>Improve pupils' literacy by explicitly teaching reading, writing and oral language skills specific to individual disciplines.</p>
<p>Phonics 1</p> <p>Have secure knowledge of the key principles in teaching of SSP and know these are embedded in statutory and non-statutory policy / guidance (The Reading Framework 2022)</p> <p>A variety of strategies/ approaches can be used to teach an effective SSP lesson (for example MTYT, mnemonics, flashcards, puppets)</p> <p>Different types of assessment of SSP informs planning for progression in word reading. (Formative and summative; Phonics screening check)</p> <p>Teachers need to be able to plan a discreet SSP phonics lesson using a 4-part process of revisit/review/teach new learning/ practise and apply new learning to secure progress in word recognition.</p>	<p>To use knowledge of correct terminology when planning and teaching SSP lessons.</p> <p>Learn how to use validated scheme materials effectively in teaching SSP lessons.</p> <p>Formatively assess learning and be able to use this to inform next steps in sequences of learning. Summative assessment in KS1 is delivered and reported</p> <p>Plan a discreet SSP lesson using all aspects of a 4-part process of revisit/review/teach new learning/ practise and apply.</p>
<p>Reading</p> <p>Effective teachers introduce new material in steps, explicitly linking new ideas to what has previously been studied and learned. (analyse guided reading planning, and videoed lesson and identify connections to SSP, small steps of learning, questioning and assessment)</p>	<p>Develop an understanding of the key principles and range of strategies involved in teaching children to read.</p>



<p>Having a secure subject knowledge is crucial (Revisit SVoR shared, guided, independent reading and reading for pleasure) (Introduce Scarborough Reading Rope.</p> <p>Children’s reading development needs to be assessed to ensure secure progress. (Formative, summative and diagnostic)</p>	
<p>Creative Approaches</p> <p>Teachers need a secure subject knowledge of a range of creative strategies to effectively teach reading (Drama – freeze frames, conscience alley, hot seating)</p> <p>Reading for pleasure is a requirement of policy and supported by research evidence. (E.G Ofsted English research review (2022), Reading Agency Literature Review (2015) Children and Young People’s Engagement (2022), CLPE Reading for Pleasure 2021-22)</p> <p>Reading for pleasure needs to be embedded and promoted in the classroom. (E.G. Parental engagement reading environment, reading through the curriculum)</p>	<p>Use creative approaches to teach reading.</p> <p>Develop reading for pleasure by supporting the creation of rich reading environments.</p>
<p>Phonics 2</p> <p>It is an importance to understand the principles of teaching reading and how to relate to key curriculum documentation.</p> <p>A 4-part lesson format, correct use of phonics terminology and the correct use of pure sounds are integral to the planning and teaching of SSP</p>	<p>Plan, resource and teach a four-part SSP lesson.</p> <p>Use a variety of strategies in the teaching of SSP that engage and support children, for example the use of stories or puppets.</p> <p>Apply correct terminology and an understanding of phoneme and grapheme correspondence to develop reading.</p>
<p>Spelling and Writing</p> <p>Guided group work supports children’s writing development. (Early mark making, handwriting, shared and guided writing)</p>	<p>To use guided group work to support children’s writing development.</p> <p>Develop children’s handwriting.</p> <p>Teach spelling through phonics.</p>



<p>Teachers need to explicitly teach spelling to ensure children progress in writing. (Stages of spelling development, strategies for spelling e.g., etymological, look, cover, write check and collaborative spelling) Phonics is integral to early spelling.</p>	<p>Teach spelling in different key stage1/2 through the use of different strategies for example Look Cover Write Check</p>
<p>Digital Literacy & Poetry Teachers can use digital technologies to motivate learners and improve learning. (Screen mediated digital literacies, investigate digital learning apps and inclusion through digital technology) Teachers need a secure subject knowledge of poetry to effectively teach reading and writing (Consideration of cultural context and the extending subject knowledge of poets and poetry)</p>	<p>Use digital literacies effectively to motivate learners and improve learning. Apply my increasing knowledge and increasing appreciation of poets and poetry in the primary classroom to support children’s learning.</p>
<p>Reading 2 Teachers need a secure subject knowledge of phonics to effectively teach reading. (Progression of phonic stages and links to age expectations) To meet the needs of all pupils, teachers adapt their planning and teaching. (Case study of children covering SEND and disadvantage are evaluated and reading needs planned for)</p>	<p>Use and adapt reading strategies to meet the needs of pupils learning.</p>
<p>Reviewing learning –/ Applying knowledge to summative assessment</p>	<p>To reflect own knowledge and development needs for example to reflect upon identified needs and targets.</p>



Continued engagement with professional development and secure subject knowledge is integral to teaching	To use critical enquiry and apply this to illustrate developing knowledge of teaching of reading.
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[Home](#)

PHASE 3	I have learned how to.....
I have learned that:	
<p>Phonics To further develop understanding of progression in systematic phonics (phonic stages, including early phonological development, sounds in the environment, rhymes and songs and decodable books) To secure knowledge of how, to assess pupils' phonic knowledge and plan for progression (consolidate knowledge – examples of formative tracking and summative assessment to secure knowledge of word reading and spelling) To gain some more practical strategies for teaching phonics</p>	<p>Apply knowledge of SSP into teaching (on placement).</p> <p>Use assessment to inform planning for progression in SSP</p> <p>Motivate and engage children in delivering phonic lessons.</p>
Picture Books and Interanimation	ensure picture books contribute to children's growing knowledge and enjoyment of children's literature. For example, by reading these with children in the classroom.



<p>Picture books are integral to children’s growing appreciation and enjoyment of literature. (Picturebooks encourage engagement and develop intrigue and inference through talk)</p> <p>Picture books can be used to support children’s developing knowledge and understanding of English. (Use of oral language, critical thinking, knowledge of how words and pictures offer meaning)</p>	<p>use picture books to support children’s learning in English. For example, by using picture books to stimulate children’s writing.</p>
<p>Literacies in and beyond the classroom</p> <p>Children’s popular culture and home literacies can be used to support school literacy learning. (Children’s home literacy practices and how this is shaped by popular culture)</p> <p>Children’s wider literacy lives including home literacies should be recognised and valued in the school setting. (Children valuing children’s cultural capital e.g. home languages, use of comic and computer games)</p>	<p>Use children’s popular culture and digital tools to enhance the teaching of English.</p>
<p>Poetry Outdoors</p> <p>Poetry is integral to children’s growing appreciation and enjoyment of literature. (Expand knowledge of poetry forms and poets)</p> <p>The outdoors can be a powerful tool to enhance children’s understanding and appreciation of poetry. (Benefits of outdoor learning, engagement with the natural world to support e.g., cognitive development and wellbeing to support writing poetry)</p>	<p>Ensure poetry contributes to children’s growing knowledge and enjoyment of children’s literature. For example, by reading and sharing poetry with children in the classroom.</p> <p>To use the outdoors to enhance the teaching of poetry.</p>
<p>Multimodal Texts and Film</p>	



<p>A range of multi modal texts are important tools to help develop literacy skills. (Understand how texts and modes work and how these can be used in the classroom to represent and communicate ideas.)</p> <p>Film texts can be used in a sequence of lessons to motivate and support children’s literacy development. (Reading film, using film to teach English, film techniques e.g., character, setting, colour, camera and planning a sequence of learning using film)</p>	<p>use film in a sequence of lessons to motivate and support children’s literacy development.</p>
<p>EAL EAL learners have a broad range of specific needs. (Definitions of EAL, demographics, superdiversity)</p> <p>EAL learners can be supported with a range of specific strategies and resources. (Historical perspectives of EAL provision, EAL pedagogy including social and academic language, importance of high-quality oracy provision)</p>	<p>Assess EAL learners to address their individual needs</p> <p>implement strategies to support EAL learners</p>
<p>Policy Historically there have been key policy initiatives in regard to the teaching of English. (Review development of English policy from 1870-present day)</p> <p>Government policy impacts upon the English curriculum, pedagogy and classroom practice. (Investigate international comparative data including PISA, critically review statutory assessment with a focus on English)</p>	<p>Evaluate the impact of government English curriculum policy on pedagogy and practice.</p>





FOREIGN LANGUAGES

PHASE 1	I have learned how to.....
I have learned that:	<p>Draw on policy, resources and guidance to support subject knowledge development.</p> <p>Model new vocabulary using my turn, your turn/ visual prompts using audio and/or written scaffolds.</p> <p>Enable children to practise vocabulary and phrases in a variety of ways</p>
<p>Foreign languages is compulsory for KS2 pupils, but children can learn earlier and FL approaches can be used to support new to English EAL pupils.</p> <p>Language learning has 3 pillars for progression phonics, vocabulary and grammar and 4 skills to develop in language learning – S, L, R, W.</p> <p>Language needs to be modelled and practised before it can be produced independently</p>	<p>Identify effective strategies for teaching languages</p> <p>Use a range of approaches for presenting and practising FL in the classroom.</p> <p>Plan a well-structured lesson in a sequence of learning to support progression in language learning</p>
<p>Carefully sequenced teaching supports the building of schemata.</p> <p>Strategies, activities and resources need to be carefully selected to ensure good progress.</p> <p>Adaptive teaching should support the process of language learning, not hinder progress.</p>	

PHASE 2	I have learned how to.....
I have learned that:	
<p>5-11 Grammatical understanding is key to good language progression.</p> <p>Teaching interrogatives, negatives, and high frequency verbs in context is part of developing knowledge of language and can enhance progress.</p> <p>Practice of vocabulary need to be revisited regularly for different contexts or tasks (eg. knowing the phrase ‘My name is X’; they can use ‘my’ or ‘name’ in other contexts.)</p> <p>Assessment processes used for novice to intermediate learners primarily focus on formative approaches.</p>	<p>Use KS2 Framework and Warwick Progression Framework & schemes to plan for and review progress.</p> <p>Plan engaging lessons using key vocabulary, grammar and knowledge about the TL language (e.g. noun adjective agreement e.g. masculine/ feminine).</p> <p>Plan for progression by building on prior learning , ensuring vocabulary & phrases are revisited in different activities, to support long term memory.</p> <p>Be able to support children to address errors/ misconceptions.</p> <p>Use formative assessment strategies when teaching FL Reflect on the impact of their teaching.</p>
<p>3-7 Although not compulsory, some EYFS and KS 1 settings develop non-native languages/ or awareness of other languages.</p> <p>Culture and language are interconnected.</p> <p>The immersion approach used for children with EAL can be supported using direct teaching (strategies shown in FL sessions).</p> <p>The research around an early start is conflicting.</p> <p>That making links to other subject areas where appropriate can help children make connections .</p>	<p>Are able to raise the awareness of cultures and languages in line with the school policy/ curriculum.</p> <p>Use greetings, simple rhymes/ songs / extracts of familiar stories to promote foreign language development.</p> <p>Support understanding thorough using actions, visual prompts & translation.</p>



<p>ALL: Assessment processes used for novice to intermediate learners primarily focus on formative approaches.</p> <p>Effective learning is supported by self-efficacy & purpose.</p> <p>Recording FL progress supports transition and progression.</p> <p>Teacher use of target language can both support and hinder progress. There needs to be a balance.</p>	
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[Home](#)

PHASE 3	I have learned how to.....
I have learned that:	
<p>Creative teaching in FL needs to be carefully considered to enable structure and progress to be maintained.</p> <p>Creative approaches can support cognitive and sociocultural dimensions of learning as well as affective dimensions- motivation and engagement for learners, when managed well (Jones & Richards 2016).</p> <p>Making links to the culture of the country/ countries where the language is spoken can support pupils' understanding of the use of the target language (e.g. formal use of 'you') and encourage engagement.</p> <p>Knowledge of other languages and cultures supports pupils' development of cultural capital.</p> <p>Use of 'authentic' texts need to be carefully selected & scaffolded to support the current language knowledge & needs of the pupils.</p>	<p>Use effective scaffolding to support children's use of phrases/ sentences & development of schemata.</p> <p>Use creative approaches when planning.</p> <p>Plan for purposeful and meaningful cross curricular opportunities (aiming to avoid stereotyping) in FL lessons.</p> <p>Use current research within their classroom practice.</p>

[Home](#)



GEOGRAPHY

PHASE 1	I have learned how to.....
I have learned that:	
<p>Secure subject knowledge is based on an understanding of what geography is and how it fits into the EYFS and NC.</p> <p>Place and personal geography is important in developing geographical understanding.</p> <p>The use of the local area is supportive for children’s geographical understanding.</p> <p>Fieldwork skills can support knowledge of the local area.</p>	<p>Use fieldwork to support children’s understanding of their local area.</p> <p>Support children’s understanding of the world through using their own location.</p> <p>Develop children’s understanding of geography through use of their local area.</p> <p>Identify areas of the NC and EYFS and demonstrate subject knowledge.</p>
<p>Weather and hot and cold places can be linked and impact on lives in the location.</p> <p>Enquiry can support learning in geography</p>	<p>Teach children about weather and hot and cold places.</p> <p>Use enquiry to support learning in geography</p>

[Home](#)

PHASE 2	I have learned how to.....
I have learned that:	
<p>There are different ways to make use of maps in geography, and that this can support a range of learning opportunities.</p>	<p>Use maps in geography to support learning.</p> <p>Use alternate locations in the country to develop understanding of place.</p>



<p>Use of alternate, locations in the country can support thinking and learning in geography.</p> <p>Latitude affects climate zones.</p>	<p>Teach about climate zones and biomes to support understanding of weather, climate and hot and cold places.</p>
<p>There are barriers to learning in geography, and how these can be tackled</p> <p>The use of adaptive teaching in geography can include a range of approaches</p> <p>Progress in geography can be supported by a range of approaches,</p> <p>Data can be used to recognise areas needing development.</p>	<p>Identify barriers to learning in geography and make suggestions as to how these can be tackled.</p> <p>Use adaptive teaching to support different needs.</p> <p>Support progress in geography through a range of teaching approaches.</p> <p>Use data to recognise areas needing development.</p>

[Home](#)

<h2 style="margin: 0;">PHASE 3</h2>	
<p>I have learned that:</p>	<p>I have learned how to.....</p>
<p>The use of international locations can support thinking and learning in geography.</p> <p>Fieldwork techniques can support understanding of place and link geography in a cross-curricular manner.</p> <p>Mountains and rivers can be taught through different approaches and both have specific knowledge that can be taught at KS1 and KS2.</p>	<p>Use international locations to support thinking and learning in geography.</p> <p>Use fieldwork techniques to support understanding of place and link geography to other subjects.</p> <p>Develop understanding of mountains and rivers in KS1 and KS2.</p>

[Home](#)



HISTORY

PHASE 1	I have learned how to...
I have learned that:	
<p>History has defining features.</p> <p>Substantive knowledge is knowledge about the past whereas disciplinary knowledge is knowing how historians work.</p> <p>Effective history teaching contains both the substantive and disciplinary aspects of the subject.</p> <p>History is an enquiry- based discipline (this differs from an enquiry-based pedagogical approach).</p> <p>Chronology underpins effective history teaching.</p> <p>That progression in history and assessment of history has to be focused upon the key components of the subject.</p>	<p>Discuss and analyse with expert colleagues:</p> <ul style="list-style-type: none"> -how to sequence lessons -understand why planning choices have been made and how they contribute to a sequence of learning. -identify the key aspects of effective history teaching and learning. -how to assess in history <p>When in school – observe history lessons and identify good practice</p>
<p>Historians employ methods of enquiry to investigate and construct knowledge and understanding of the past.</p> <p>Sources and artefacts become evidence when historians use them to answer questions about the past.</p>	<p>Plan a well-structured history lesson within an identified sequence of learning.</p> <p>Make effective use of historical enquiry in the primary classroom to secure pupils’ progress.</p>



	<p>Adapt teaching to ensure all children are able to acquire key history subject knowledge and understanding and make progress.</p> <p>Use targeted questions to check for children’s historical knowledge and understanding.</p> <p>Develop my own subject knowledge (<i>post session task linked to session: Early Islamic Civilisation</i>).</p>
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[Home](#)

PHASE 2	I have learned how to...
I have learned that:	
Effective use of retrieval practice supports pupils’ learning and remembering.	



Secure subject knowledge is an important aspect of developing chronological understanding and supports pupils in building history schemas.

Chronology is a key concept which underpins our understanding of history, and developing secure chronological understanding is an essential aspect of effective history learning.

Narrative is a fundamental part of history.

Children begin to develop their understanding of time and chronology before they begin to engage in discrete history learning, and that developing early chronological understanding is crucial for younger children in order that they can make sense of their day to day lives.

It is important to actively teach for the development of chronological understanding to support pupils in making sense of the abstract nature of time.

Effective teaching of chronological understanding can help avoid promoting misconceptions when teaching and identify and address any which might arise.

Effective and consistent use of timelines play a crucial role in developing all aspects of chronological understanding with children.

Implement retrieval practice as part of effective history teaching and learning.

Plan for the development of children’s chronological understanding in the EYFS/KS1 or KS1/KS2

Identify and address common misconceptions in relation to chronological understanding.

Make effective use of timelines within history lessons.



<p>Pupils build their knowledge of substantive concepts more securely when learnt through meaningful examples and through repeated encounters in different contexts.</p> <p>That historical enquiry is underpinned by a conceptual framework and that when historians examine different events, they do so through the conceptual lens of one of the disciplinary concepts.</p> <p>That people may hold different views about who, or what is significant and why.</p> <p>Assessment of history learning should:</p> <ul style="list-style-type: none"> • focus on important content and concepts • provide useful information about gaps and misconceptions • be used to inform teaching and curriculum planning 	<p>Plan a sequence of learning in history.</p> <p>Identify potential misconceptions and plan to avoid these/identify and address misconceptions which may arise.</p> <p>Assess pupils' knowledge and understanding and identify next steps in learning.</p> <p>Adapt teaching to ensure all children are able to access historical content and learning and make progress.</p>
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[Home](#)

PHASE 3	
I have learned that:	I have learned how to...
<p>Revisiting learning regularly is important to ensure knowledge is retained in long term memory.</p> <p>It is important to critically consider the choices we make when planning and teaching.</p> <p>High-quality classroom talk can support pupils to articulate key ideas, consolidate understanding and extend their vocabulary.</p>	<p>Enable critical thinking and problem solving by first teaching the necessary foundational content knowledge.</p> <p>Employ effective historical discourse in the classroom.</p> <p>Plan an effective sequence of history learning with clear intended outcomes and which secures pupils' substantive knowledge and allows for progression of disciplinary processes and understanding.</p>
<p>Home</p>	



Mathematics

PHASE 1	I have learned how to.....
I have learned that:	
<p>What is Mathematics? Our own attitude to mathematics is shaped by our experiences.</p> <p>Mathematics teachers are key role models who influence the attitude and motivation of their pupils and that motivation and love of a subject is predicated on success in that subject</p> <p>There are national statutory frameworks and non-statutory guidance that inform and support teaching and learning For EYFS, KS1 and KS2</p> <p>There are three aims of the National Curriculum for mathematics.</p> <p>The mathematical curriculum content can be classified into declarative, procedural and conditional knowledge.</p>	<p>Access the statutory and non – statutory guidance for Mathematics.</p> <p>Begin to relate key research, government policy and theory when observing colleagues – Ofsted Review.</p> <p>Identify declarative, procedural and conditional knowledge.</p> <p>Audit their own mathematics subject knowledge and devise an action to address gaps.</p>
<p>Teaching for Mastery, Teaching for understanding Teaching for Mastery is one approach for teaching for understanding Learning involves a lasting change in pupils’ capabilities or understanding.</p> <p>Ensuring pupils master foundational concepts and knowledge before moving on is important to ensure progress.</p>	<p>Use research from a range of sources to develop an understanding of theory and then relate it to practice.</p>



<p>Complex ideas and concepts can be broken down into smaller steps to ensure understanding.</p> <p>Interleaving concrete, pictorial and abstract examples to support conceptual understanding.</p>	<p>Begin to consider the choices of concrete resources and pictorial representations and how they support understanding</p>
<p>The Foundations of Early Number</p> <p>There are 5 counting principles and learning should develop efficient and accurate methods for counting</p> <p>Subitising is the ability to instantly recognise the number of objects in a small group without the need to count them.</p> <p>5 and 10 are key structures.</p> <p>There are key essential concepts, knowledge, skills and principles in early maths.</p> <p>Ensuring pupils master foundational concepts and knowledge before moving on is important to ensure progress.</p>	<p>Identify the key essential concepts, knowledge, skills and principles in early maths.</p> <p>Include effective teaching strategies to secure progress in early number.</p>
<p>Place Value</p> <p>Developing Number Sense</p> <p>Mastering an understanding of place value is an important aspect of mathematics.</p> <p>Comparing numbers involves knowing the relative value of numbers.</p> <p>There is a progression in place value.</p> <p>Numbers can be represented in different ways.</p>	<p>Develop a secure understanding of place value through the use of carefully selected resources and tasks.</p> <p>Provide opportunities for numbers to be represented in different ways</p>



<p>Carefully selected resources and tasks can develop a secure understanding of place value.</p>	
<p>Foundations in calculation - Addition and Subtraction There are key essential concepts, knowledge, skills and principles in addition and subtraction.</p> <p>Composition is a key idea - That one number can be made up from (composed from) two or more smaller numbers.</p> <p>There are key addition and subtraction facts that need to be recalled at each stage (declarative knowledge) including knowledge of relationships between facts</p> <p>Interleaving concrete, pictorial and abstract strategies to support secure conceptual understanding. Prompts, scaffolds and manipulatives should, ideally, be used to help explain underlying principles rather than make up for lack of knowledge of facts and methods of calculation.</p>	<p>Begin to provide opportunities for embedding and retrieval/ recall of addition and subtraction number facts.</p> <p>Use vocabulary and stem sentences alongside key addition and subtraction facts</p> <p>Begin to provide addition and subtraction problem solving and reasoning opportunities.</p> <p>Consider the use of concrete resources and pictorial representations when planning and teaching addition and subtraction.</p>
<p>Foundations in calculation - Multiplication and Division There are key essential concepts, knowledge, skills and principles in multiplication and division.</p> <p>They are key multiplication and division number fact that need to be recalled at each stage (declarative knowledge) including knowledge of relationships between facts.</p> <p>The Multiplication Tables Check (MTC) is to determine whether pupils can recall their times tables fluently (declarative knowledge).</p>	<p>Begin to provide opportunities for embedding and retrieval/ recall of multiplication and division facts.</p> <p>Begin to provide multiplication and division problem solving and reasoning opportunities.</p>



<p>Interleaving concrete, pictorial and abstract strategies to support secure conceptual understanding.</p> <p>Prompts, scaffolds and manipulatives should, ideally, be used to help explain underlying principles rather than make up for lack of knowledge of facts and methods of calculation.</p>	<p>Consider the use of concrete resources and pictorial representations when planning and teaching multiplication and division</p>
<p>Planning and Assessment</p> <p>Lessons are planned as part of a sequence of learning.</p> <p>Lessons need to be broken down into small, connected steps that gradually unfold the concept - coherence and small steps.</p> <p>There are key elements of a lesson which support effective learning and positive outcomes.</p>	<p>Align maths teaching with the expectations of the National Curriculum</p> <p>Contribute to the design of the lesson sequence and lessons within the sequence in collaborating with a more experienced colleague.</p>
<p>Lesson Observation</p> <p>There are key elements of a lesson and sequence of learning.</p> <p>Manipulatives and representations can be powerful tools for supporting children to engage with mathematical ideas.</p> <p>Effective teacher questioning can promote reasoning and mathematical thinking.</p> <p>Effective questioning can support assessment.</p>	<p>Identify elements of effective teaching from observation.</p> <p>Implement elements of effective teaching when planning a learning sequence in their lesson design.</p> <p>(Focus on use of manipulatives and representations, modelling and questioning)</p>



<p>Review of CPA approach</p> <p>Manipulatives and representations can be powerful tools for supporting children to engage with mathematical ideas.</p> <p>Children need to understand the links between the manipulatives and the mathematical ideas they represent.</p> <p>The ideal use of concrete resources is as an aid to reveal mathematical structure and develop understanding of the concept being taught</p> <p>There needs to be a clear rationale for using a particular manipulative or representation to teach a specific mathematical concept.</p> <p>Manipulatives should be temporary; they should act as a ‘scaffold’ that can be removed once independence is achieved to avoid over reliance.</p>	<p>Reflect on the effectiveness of their chosen manipulatives and representations for exposing mathematical structure.</p> <p>Use research on effective approaches to inform their planning and teaching.</p>
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[Home](#)

PHASE 2	
I have learned that:	I have learned how to.....
<p>Introduction</p> <p>There is a difference between an error and a misconception.</p> <p>Learning builds in schemas and weak schemas can result in misconceptions.</p>	<p>Begin to identify common errors and misconceptions</p> <p>Begin to identify strategies to address errors and misconceptions</p>



<p>Anticipating common misconceptions in order to address them before they arise or identifying misconceptions and then teaching in order to correct them are key aspects of effective teaching.</p> <p>Mastery - including the connections made between the language, manipulatives, images and symbols – is an approach to teaching to ensure understanding.</p>	<p>Include mastery approaches in teaching</p>
<p>Number and Place Value</p> <p>There is specific subject knowledge required to plan, teach and assess number and place value.</p> <p>Progression in learning needs to be understood to teach effectively.</p> <p>Worked examples, modelling, and narrating the thought process support understanding.</p> <p>Using appropriate concrete resources and pictorial representations as guides and scaffolds develop conceptual and procedural understanding of the abstract ideas.</p>	<p>Predict and include when planning a series of lessons questions designed to draw attention to common errors and misconceptions in number and place value</p> <p>Address errors and misconceptions identified when teaching number and place value</p>



Addition and Subtraction

There is specific subject knowledge required to plan, teach and assess addition and subtraction.

The progression in learning needs to be understood to teach effectively . It is important to develop efficient and accurate methods.

- Mental calculation strategies
- Informal written methods
- Formal written methods

The principles of exchanging and grouping need to be understood, modelled and articulated.

There are common misconception, conceptual challenges and errors in this area of the curriculum.

Worked examples, modelling, and narrating the thought process support understanding.

Using concrete resources and pictorial representations as guides and scaffolds develop conceptual and procedural understanding of the abstract ideas. Prompts, scaffolds and manipulatives should, be used to help explain underlying principles.

Predict and include when planning a series of lessons questions designed to draw attention to common errors and misconceptions in addition and subtraction

Address errors and misconceptions identified when teaching addition and subtraction.

Plan to include all categories of knowledge in relation to addition and subtraction



Multiplication and Division

There is specific subject knowledge required to plan, teach and assess multiplication and division.

The progression in learning needs to be understood to teach effectively. It is important to develop efficient and accurate methods.

- Moving from additive expressions to multiplicative reasoning
- Mental calculation strategies
- Informal written methods
- Formal written methods

The principles of exchanging and grouping need to be understood, modelled and articulated.

There are common misconception, conceptual challenges and errors in this area of the curriculum.

Worked examples, modelling, and narrating the thought process support understanding.

Using concrete resources and pictorial representations as guides and scaffolds develop conceptual and procedural understanding of the abstract ideas. Prompts, scaffolds and manipulatives should, be used to help explain underlying principles.

Predict and include when planning a series of lessons questions designed to draw attention to common errors and misconceptions in multiplication and division

Address errors and misconceptions identified when teaching multiplication and division using effective modelling and scaffolding.

Plan to include all categories of knowledge in relation to multiplication and division



<p>Fractions, Decimals and Percentages</p> <p>There is specific subject knowledge required to plan, teach and assess fractions, decimals and percentages.</p> <p>The progression in learning needs to be understood to teach effectively</p> <ul style="list-style-type: none"> - Fractions of shape and qualities - Equivalent fractions - Calculating with fractions - Links between fractions, decimals and percentages <p>There are common misconception, conceptual challenges and errors in this area of the curriculum.</p> <p>Worked examples, modelling, and narrating the thought process support understanding.</p> <p>Using concrete resources and pictorial representations as guides and scaffolds develop conceptual and procedural understanding of the abstract ideas. Prompts, scaffolds and manipulatives should, be used to help explain underlying principles.</p>	<p>Predict and include when planning a series of lessons questions designed to draw attention to common errors and misconceptions in fractions, decimals and percentages</p> <p>Address errors and misconceptions identified when teaching fractions, decimals and percentages</p>
<p>Measures</p> <p>There is specific subject knowledge required to plan, teach and assess measures</p> <p>The progression in learning needs to be understood to teach effectively.</p>	<p>Predict and include when planning a series of lessons questions designed to draw attention to common errors and misconceptions in measures</p> <p>Address errors and misconceptions identified when teaching measures</p>



<p>There are common misconception, conceptual challenges and errors in this area of the curriculum.</p> <p>Worked examples, modelling, and narrating the thought process support understanding.</p> <p>Using concrete resources and pictorial representations as guides and scaffolds develop conceptual and procedural understanding of the abstract ideas.</p>	
<p>Geometry</p> <p>There is specific subject knowledge required to plan, teach and assess geometry.</p> <p>The progression in learning needs to be understood to teach effectively</p> <ul style="list-style-type: none"> - Names and properties of 2D and 3D shapes - Angles - Position, direction and movement <p>There are key geometry key fact and formula that need to be known (declarative knowledge)</p> <p>There are common misconception, conceptual challenges and errors in this area of the curriculum.</p> <p>Worked examples, modelling, and narrating the thought process support understanding.</p> <p>Using concrete resources and pictorial representations as guides and scaffolds develop conceptual and procedural understanding of the abstract ideas.</p>	<p>Predict and include when planning a series of lessons questions designed to draw attention to common errors and misconceptions in Geometry.</p> <p>Address errors and misconceptions identified when teaching Geometry</p>



<p>Statistics</p> <p>There is specific subject knowledge required to plan, teach and assess statistics.</p> <p>The progression in learning needs to be understood to teach effectively.</p> <ul style="list-style-type: none"> - interpret and present data – tables, pictograms, bar charts, line graphs, pie charts - solve comparison, sum and difference problems <p>There are common misconception, conceptual challenges and errors in this area of the curriculum.</p> <p>Worked examples, modelling, and narrating the thought process support understanding.</p> <p>Using concrete resources and pictorial representations as guides and scaffolds develop conceptual and procedural understanding of the abstract ideas.</p>	<p>Predict and include when planning a series of lessons questions designed to draw attention to common errors and misconceptions in statistics.</p> <p>Address errors and misconceptions identified when teaching statistics</p>
<p>Assessment</p> <p>There are statutory Assessment and Reporting Arrangements (ARA) for pupils at the end of the EYFS, Key Stage 1 and Key Stage 2 for mathematics.</p> <p>There are different types and purpose of assessments. Knowledge of pupils’ strengths and weaknesses should inform the planning of future lessons and the focus of targeted support.</p>	<p>Use maths assessment effectively</p> <p>Implement statutory assessment in maths.</p>



PHASE 3	
I have learned that:	I have learned how to.....
<p>Mathematical Minds Maths anxiety has an impact on learning and as teachers we can address this barrier to learning.</p> <p>A growth-mindset is believed by some to have a positive impact on pupil progress and outcomes in mathematics.</p> <p>The memory and cognitive load theory impact maths teaching and learning.</p> <p>There are approaches for supporting working memory and cognitive overload in mathematics based on Rosenshine’s principles of instruction.</p>	<p>Reflect of own professional practice and in light of learning about maths anxiety and growth mindsets.</p> <p>Implement learning about maths anxiety and growth mindsets in practice.</p> <p>Reflect on the impact of Rosenshine’s principles when applied to the maths classroom.</p>
<p>Maths Policy A critical understanding of recent and emerging policies supports effective teaching and learning. Policy impacts upon the Maths curriculum, pedagogy and classroom practice</p>	<p>Evaluate the impact of Maths curriculum policy on pedagogy and practice.</p>



<p>Mastery and Fluency</p> <p>There are different interpretations of fluency in relation to mathematics.</p> <p>There are curriculum expectations for the learning of number facts to automaticity (declarative knowledge).</p> <p>Fluency includes the accurate efficient and flexible use of calculation strategies (procedural knowledge).</p> <p>Fluency is important in light of research on working memory, long-term memory and cognitive load.</p>	<p>Include opportunities to develop fluency in practice.</p> <p>Include opportunities for the development of automaticity to free working memory.</p>
<p>Mastery and Variation</p> <p>Procedural and conceptual variation are key elements of a Mastery approach.</p> <p>Conceptual variation involves using examples and non-examples to develop a deep understanding.</p> <p>Procedural variation provides the opportunity to reveal the structure of the maths being explored.</p>	<p>Design learning tasks that invite opportunities for deep learning by varying what changes and what stays the same</p> <p>Design tasks that draw attention to mathematical structures</p>
<p>Reasoning</p> <p>Language is an essential component of maths teaching.</p>	<p>Provide opportunities for rich and robust dialogic interactions where pupil articulate their mathematical thinking and reasoning.</p>



<p>Being able to articulate mathematical thinking is a key component of being a mathematician – Conditional knowledge.</p> <p>Mathematics dialogue is an effective approach to developing mathematics thinking and reasoning.</p>	<p>Assess mathematical thinking and reasoning through questioning and scaffolded conversations.</p>
<p>Maths Beyond...</p> <p>Mathematics can be taught in creative and innovative contexts.</p> <p>Stories provide a clear context for conceptual understanding.</p> <p>Financial education can support financial wellbeing.</p> <p>There are benefits to including physical activity in math lessons.</p>	<p>Incorporate a range of teaching approaches that support wider development of the school culture capital and vision.</p>

[Home](#)



Music

PHASE 1	I have learned how to.....
I have learned that:	
<p>Secure musical subject knowledge is based on statutory and non-statutory frameworks.</p> <p>Music is created and structured through the inter-related dimensions of music.</p> <p>There is a strong link between listening and appraising music, and the creation of music.</p> <p>The fundamentals of singing technique are based on body posture, breathing and vocal warm ups.</p>	<p>Structure a sequence of learning in music.</p> <p>Teach children the basics of good singing technique; controlling pitch, dynamics and phrasing.</p> <p>Teach children how to notate using graphic symbols.</p> <p>Teach children to compose using a non-musical stimulus.</p> <p>Teach children to keep a steady tempo.</p> <p>Teach children simple rhythmic patterns.</p>

[Home](#)



PHASE 2	I have learned how to.....
I have learned that:	
<p>Eurythmics and Rhythmic Solfege are used to develop a solid rhythmic foundation Music is fundamental to culture.</p> <p>melody is based on scales and uses important notes (Tonic, subdominant, dominant).</p> <p>The new model music curriculum and Development matters to structure sequences of learning.</p> <p>World music is a vehicle for developing an understanding of culture.</p> <p>Musical learning can be adapted for all learners</p>	<p>Develop children’s rhythmic foundations through rhythmic syllables, rhythmic sequences and rhythm and movement.</p> <p>Teach children the fundamentals of melody and harmony from the use of scales and important notes.</p> <p>Lead a call and response rhythmic activity.</p> <p>Support children to use rhythmic ostinato in composition.</p> <p>Support children to tell a story using instruments and voice.</p> <p>Support children to use melodic (inc. chromatic) ostinato in composition.</p> <p>Teach children to use standard western notation including crochets and quavers.</p>
<p>Home</p>	



<h2>PHASE 3</h2>	<p>I have learned how to.....</p>
<p>I have learned that:</p>	
<p>That sound musical learning is based on a solid understanding of statutory and non-statutory guidance.</p> <p>Good posture, controlled breathing and structured vocal exercises are essential for singing development.</p> <p>That the pre-arranged sequencing of sounds is the basis of music.</p> <p>That targeted musical technology can be used to enhance musical development and to engage harder to reach and disenfranchised groups.</p>	<p>Structure a medium term sequence of musical learning.</p> <p>Lead singing in 2 or more parts, through the use of rounds.</p> <p>Use the exemplar program 'Soundplant ' to capture, arrange and manipulate sounds to compose a piece of music.</p> <p>Support children to develop good posture, controlled breathing and structured vocal exercises to develop their singing technique.</p>

[Home](#)



PHYSICAL EDUCATION

PHASE 1	I have learned how to.....
I have learned that:	<p>Organise learning in PE to ensure high levels of sustained activity.</p> <p>Use a range of behaviour management strategies effectively within a physical environment.</p> <p>Align PE activities with NC and EYFS expectations.</p> <p>Plan for effective retrieval practice through relevant warm up activities.</p>
<p>Physical Education is inter-related with Physical Activity and School Sport, but they are not one and the same.</p> <p>The National Curriculum for PE and EYFS Framework are statutory documents, and that PE is taught at EYFS and PE at KS1 and KS2.</p> <p>The 3 Pillars of Progression in PE are: Motor Competence, Rules, Tactics and Strategies and Healthy Participation.</p> <p>There must be high levels of sustained activity within all PE lessons.</p> <p>Warm Up activities are learning opportunities for retrieval practice and connections to new learning.</p> <p>Small group organisation is key to ensuring progression of skills.</p>	<p>Know how to structure a sequence of learning.</p>



<p>Through adaptive practice the learning needs of all learners will be catered for.</p> <p>The STTEP model can be used to adapt practice within PE for all learners including those with SEND and EAL.</p> <p>Safe practice approaches are fundamental to effective PE learning and teaching.</p>	<p>Plan an effective PE lesson that considers relevant warm ups for learning, fundamental movement skill progressions, the application of these skills to collaborative work or game play and the recognition of how this contributes to healthy outcomes over time.</p> <p>Make adaptations for all learners including those with SEND and EAL using the STTEP model.</p> <p>Ensure PE lessons are safe using P.I.E model (AfPE).</p>
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[Home](#)

PHASE 2	I have practised – evidence
I have learned that:	
<p>Barriers within PE exist and are varied, and these need to be considered for the context of each cohort of children. Planning that overcomes barriers to learning should be done so as to enable all learners to make progress.</p> <p>Using varied approaches for Assessment for Learning in PE ensures progression through and beyond the physical domain.</p> <p>Gymnastics activities are taught within the National Curriculum through the development of strength, balance and flexibility and contribute to motor development.</p> <p>Fundamental Movement Skills can be developed through a gymnastics lens. Gymnastics progression is secured by giving children opportunities to</p>	<p>Plan and deliver gymnastics lessons that demonstrate how key gymnastic fundamental movement skills are progressed.</p> <p>Use questioning in PE lessons at hinge points to enable children to make progress.</p> <p>Use success criteria and teaching points for gymnastic specific fundamental movement skills to enable children to peer assess and set goals within their learning.</p> <p>Ensure that all gymnastics lessons are safe and that gymnastic specific safe practice expectations are adhered to.</p>



<p>develop key skills through adaptations of speed, direction of travel, levels, shape, pathways and use of the body (supporting concepts).</p> <p>Gymnastics activities carry a higher risk, and safe practice awareness and application of specific gymnastics practice is important.</p>	
<p>Children’s physical development follows developmental milestones but that these are not age specific.</p> <p>PE activities must be developmentally appropriate to cater for a range of motor competency progressions.</p> <p>Motor competency progressions need regular practice and need to build in complexity to enable children to execute skills fluently and apply within wider collaborate physical contexts.</p> <p>Using varied approaches for Assessment for Learning in PE ensures progression through and beyond the physical domain.</p>	<p>Plan for a sequence of lessons in games with a clear intended outcome.</p> <p>Identify motor competency progressions for fundamental movement skills within Games (specifically catching) and use these to develop success criteria and teaching points within Games lessons.</p> <p>Plan developmentally appropriate PE activities within Games related fundamental movement skills – e.g. throwing and catching.</p> <p>Plan and deliver a sequence of lessons demonstrating understanding of movement skill competency progressions across lessons.</p> <p>Plan for a sequence of lessons that provide opportunities for cognitive, creative, social and emotional development through the physical domain.</p>

[Home](#)



<h2 style="margin: 0;">PHASE 3</h2>	<p style="margin: 0;">I have learned how to.....</p>
<p style="margin: 0;">I have learned that:</p>	
<p style="margin: 0;">Creativity in PE requires teachers to plan for purposeful physical exploration and meaning making through providing opportunities within PE and across the wider curriculum in an inclusive and motivating environment.</p> <p style="margin: 0;">Dance is a statutory part of the NC within PE, and within the EYFS within the area of Expressive Arts and Design.</p> <p style="margin: 0;">Dance teaching should consider opportunities for choreography, performing and dance appreciation.</p> <p style="margin: 0;">A stimulus and its relationship to language and ‘movement words’ are the starting point for dance development.</p> <p style="margin: 0;">By exploring the language of dance (movement vocabulary) children will be able to choreograph motifs that can be developed into longer sequences of movement.</p> <p style="margin: 0;">Dance making is progressed through the development of the actions, dynamics, space and relationships with their own bodies and in relation to others’.</p>	<p style="margin: 0;">Use creative philosophies when planning all PE lessons.</p> <p style="margin: 0;">Plan for purposeful and meaningful cross curricular opportunities within the PE curriculum.</p> <p style="margin: 0;">Develop a stimulus from a concept/idea to create a framework for dance development.</p> <p style="margin: 0;">Plan an overview for a sequence of lessons for dance.</p> <p style="margin: 0;">Enable children to create a motif from movement words and language when teaching dance.</p> <p style="margin: 0;">Develop dance making (choreography) by using choreographical devices such as dynamics, transitions, unison and connections/space.</p>

[Home](#)



RELIGIOUS EDUCATION

PHASE 1	I have learned how to.....
I have learned that:	
<p>RE is a statutory subject for all registered pupils except for those withdrawn. Some schools use a locally agreed syllabus.</p> <p>RE is an educational endeavour rather than a proselytizing activity.</p>	<p>Respond to the legal requirements of RE.</p> <p>Respond to parental request to withdraw their children from RE.</p> <p>Plan for RE using the appropriate syllabus.</p>
<p>RE makes an important contribution to the spiritual, moral, social, cultural and personal development of pupils.</p>	<p>Create a rich RE based classroom environment</p>
<p>Secure subject knowledge is based on an understanding of what RE is, knowing the expectations of the syllabus, substantive knowledge, disciplinary knowledge and personal knowledge</p>	<p>Articulate the aims of RE.</p> <p>Use the locally agreed syllabus.</p> <p>Include the three types of knowledge in RE for teaching RE.</p>

Religions and belief traditions have vocabulary, sacred texts, places, festivals and people which is to be used for RE.	<p>Pronounce RE related terms and recognise symbols and key features in RE phenomena</p> <p>Organise learning – (sustained activity, scaffolding, group organisation, deliberate practice, modelling)</p> <p>Plan an RE lesson as part of a sequence of lessons for a unit of work</p>
A range of faith and non-faith stories are important for teaching in RE.	<p>Select stories for teaching RE</p> <p>use the PARDES method</p> <p>use stories in different ways</p> <p>support pupils with SEND and EAL</p>
Artefacts can be used in the classroom for teaching RE.	<p>Use artefacts to explore beliefs, concepts, practices</p> <p>encourage pupils to ask of artefacts.</p> <p>Develop knowledge and skills through artefacts</p> <p>explore the five layers of understanding artefacts</p>

[Home](#)

PHASE 2	I have learned how to.....
I have learned that:	
There are certain key concepts and knowledge required to deliver high quality RE and worldviews curriculum.	<p>Use retrieval tasks to revise prior knowledge</p> <p>design a quiz</p> <p>deliver high quality RE</p> <p>present the key knowledge and conceptual areas in the six principal religions and humanism.</p>



RE can be delivered through multiple disciplines such as theological, philosophical and social sciences	Plan RE based on a multidisciplinary approach in EYFS/KS1/KS2 Study a locally agreed syllabus using a disciplinary approach
Learning content is organised in different ways for RE as reflected in locally agreed syllabi	Plan and teach a series of lessons in RE make adaptations for all learners including those with SEND and EAL
There are different types of planning	Plan a sequence of lessons using a locally agreed syllabus focussing on (1) skills to develop (2) how is the content organised (3) EYFS (4) inclusion (5) assessment (6) planning (7) progression.
Assessment in RE is important to support pupil progress progress in RE is mapped out by locally agreed syllabi as well	Use formative and summative assessment in RE to measure progress in RE

[Home](#)

PHASE 3	I have learned how to.....
I have learned that:	
Progress in RE is mapped out by locally agreed syllabi as well secure subject knowledge is based on an understanding of locally agreed syllabi, other syllabi and non-statutory guidance. The adoption of a wider variety of pedagogies and use of a varied range of teaching and learning strategies promotes quality and in-depth learning in RE using questions to question in RE is important for a multidisciplinary approach and for creating a culture of powerful questioning and engagement in RE.	Structure a sequence of learning episodes in RE design a debate for RE using De Bono's thinking hats make adaptations for all learners including those with SEND and EAL. Apply hermeneutics in RE use poetry in RE use and develop questions of origin, meaning, purpose, truth, identity, belonging, value, commitment and destiny.



[Home](#)

SCIENCE

PHASE 1	I have learned how to.....
I have learned that:	
<p>Curriculum</p> <ul style="list-style-type: none"> - Primary schools plan science using a National Curriculum which provides a programme of study for substantive knowledge (physics, chemistry and biology) and disciplinary knowledge (working scientifically) (with latter taught through the former) - science is taught in the Early Years Foundation Stage (EYFS) curriculum: Specific Area of Learning: 'Understanding the World'. that secure teacher subject knowledge is essential to high quality teaching and learning in science - secure substantive knowledge is a key requirement allowing for connections within and between both topics and year groups - secure subject knowledge is required to teach the following with confidence: <ul style="list-style-type: none"> - Life processes and living things 	<p>navigate statutory curriculum documents (National Curriculum and EYFS)</p> <p>self-reflect and plan for personal development with science subject knowledge.</p> <p>begin to engage with curriculum, and current research and literature: to develop knowledge and understanding of the subject.</p> <p>Focus: Substantive knowledge</p> <p>Observe part of a science lesson planned and delivered by mentor (and/or science subject leader) focusing on elicitation and prior knowledge.</p> <p>Identify and reflect on the following key elements:</p> <ul style="list-style-type: none"> - key knowledge and conceptual understanding - the elicitation strategies used to elicit initial ideas, eg. concept cartoon, questioning, KWL grid, - children's initial ideas about the topic

<p>Plants Animals, including humans</p>	<ul style="list-style-type: none"> - possible misconceptions - consider how misconceptions are/may be addressed.
<p>Session 2:</p> <ul style="list-style-type: none"> - constructivist learning theory is applied to practice, influencing and underpinning approaches to teaching effective science - children have common misconceptions and anticipating these in science is an important part of curriculum knowledge, <ul style="list-style-type: none"> - connections between existing and new knowledge need to be made explicit (and schema, working memory and cognitive load further inform approaches to teaching) - a range of elicitation strategies/techniques can be used to elicit pupil's ideas, and are essential tools for formative assessment <ul style="list-style-type: none"> - misconceptions are more likely to develop when progression is too fast and prior learning insecure. - secure subject knowledge is required to teach the following with confidence: <p>Plants Animals, including Humans (life-processes)</p> <ul style="list-style-type: none"> - how living things move (bones, joints, tissue) - the digestion system; - the circulatory system 	<ul style="list-style-type: none"> - anticipate common misconceptions in science and plan for overcoming this with: <ul style="list-style-type: none"> • considered lesson pace. • considering prior learning. aid children to make connections between different concepts. consider and plan for the next steps to address misconceptions to secure progress. apply a range of concepts such as schema, working memory and cognitive load, in the context of science learning effectively <p>Focus: Substantive knowledge Plan and carry out an elicitation strategy of choice related to the current science topic with a group of 6 children of mixed ability.</p> <ul style="list-style-type: none"> - research so that you will be able to anticipate common misconceptions related to the aspect for focus - record pupil responses and initial ideas - identify misconceptions - consider and plan for possible next steps to address misconceptions to secure progress



<p>Session 3:</p> <ul style="list-style-type: none"> - retrieval activities and repeated practice can be used to develop deeper understandings of associated concepts in science, and embed learning in long term memory - children’s ideas and interests are to be nurtured, developed, stretched and challenged through adult support during play and exploration. - adults support children’s learning and development effectively in science through both <i>child-led</i> play and <i>adult planned</i> play opportunity - secure teacher subject knowledge is required to teach the following with confidence: <p>Physical processes:</p> <ul style="list-style-type: none"> - light and sound 	<ul style="list-style-type: none"> -plan retrieval activities and repeated practice - identify and plan purposeful play in the classroom, child-led, and teacher supported - Select appropriate activity and resources to support effectively <p>Focus substantive knowledge: observe a Science Lesson/EYFS activity delivered by school mentor.</p> <ul style="list-style-type: none"> - identify key components of a science lesson taught by an expert colleague - discuss and evaluate the lesson with a clear focus on key elements as outlined on observation proforma. (Progress Journal)
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Session 4:

- classroom talk, and teacher questioning are important in both elicitation of initial ideas and supporting deeper conceptual understanding and/or conceptual change
- complex ideas will need to be broken down into smaller component parts in order to reduce risk of cognitive overload.
- complex concepts can be explained using concrete initially, moving to pictorial and abstract with increasing familiarity and confidence linked to theory (Bruner)
- the use of models and analogies, provide alternative approaches, alongside or instead of practical activity (when practical activity does not enable deeper understanding of phenomena where concepts are hard to see or tricky)
- that *modelling* further helps pupils understand new processes and ideas; good models make abstract ideas concrete and accessible
- secure teacher **subject knowledge** is required to teach the following with confidence:
physical processes:
 - electricity

- effectively plan classroom talk and teacher questioning to supports children to share their ideas, influence thinking, progress their scientific vocabulary and develop conceptual understanding.
- use models and analogies as a theoretical approach to tackle more abstract concepts
- use modelling, guides, scaffolds and worked examples, to support learning and embed new concepts in science, and when to remove these when no longer required



<p>Session 5:</p> <ul style="list-style-type: none">- a range of approaches to the organisation of practical activities in science exist- practical strategies must be considered in planning to stimulate interest and instil curiosity, responding to children’s needs and interests- medium-term planning exists so that learning is sequenced effectively over time- all key components for an effective lesson must be considered when planning- secure teacher subject knowledge is required to teach the following with confidence: <p>Substantive knowledge:</p> <ul style="list-style-type: none">chemical processes- materials	<ul style="list-style-type: none">- plan with support a science activity which includes essential elements of effective practice.- plan for effective resourcing and management of science in their classroom. <p>Focus: Substantive knowledge</p> <ul style="list-style-type: none">- plan and teach a short science lesson sequence with support from the mentor- plan effectively a short sequence of 3 Science lessons (1 per week) with expert colleague support,- discuss and evaluate lessons taught <ul style="list-style-type: none">- respond positively to constructive feedback from expert colleague, taking responsibility for professional development.
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<p>Session 6:</p> <ul style="list-style-type: none"> - Science planning for effective learning and progress will need adapting to ensure the needs of all pupils including those with SEN/D, EAL, and those who require stretch and challenge, are met. - guides, scaffolds and worked examples, can help pupils to learn and apply new science concepts and these can be gradually removed as pupil expertise increases - secure teacher subject knowledge is required to teach the following with confidence: <p>Substantive knowledge:</p> <ul style="list-style-type: none"> - a broader range of relevant topics as part of a carousel 	<ul style="list-style-type: none"> - create guides, scaffolds and worked examples to help pupils to learn and apply new science concepts and these can be gradually removed as pupil expertise increases <p>Focus: Substantive knowledge</p> <ul style="list-style-type: none"> - plan and teach a short science lesson sequence with support from the mentor - plan effectively a short sequence of 3 Science lessons (1 per week) with expert colleague support, - discuss and evaluate lessons taught - respond positively to constructive feedback from expert colleague, taking responsibility for professional development.



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[Home](#)

<h2>PHASE 2</h2> <p>Science</p> <p>I have learned that:</p>	<p>I have learned how to.....</p>
<p>Session1</p> <ul style="list-style-type: none"> - disciplinary knowledge is embedded within the NC programme of study, and needs to be taught explicitly rather than absorbed through practice. - substantive knowledge provides the context for developing disciplinary knowledge 	<p>navigate the statutory curriculum documents (National Curriculum and EYFS)</p> <p>Self-reflect and plan for personal development with science subject knowledge.</p> <p>plan for process skills explicitly, and link with the teaching of substantive knowledge and conceptual understanding.</p>



- there are different types of scientific enquiry - and appropriateness is dependent on the nature of the substantive knowledge being taught

- children's attention and *observation* skills will be promoted through effective teacher questioning.

This session:

Substantive Knowledge

- Life processes and living things

- Plants

Disciplinary Knowledge

- Observation

- Asking questions

NB: Focus: 5-11 route

Sessions need to cover Substantive knowledge, and more challenging concepts

Life-processes:

Chemical Processes:

grouping materials and particle theory;

Physical processes:

forces (including magnets, gravity, air and water resistance, and friction)

create explicit appropriate learning objectives that incorporate elements of *working scientifically* alongside substantive knowledge

plan investigative science and process skill across different types of enquiry, with choices appropriate to the nature of the investigative activity planned



<p>Rocks, fossils and soils</p> <p>Earth in Space</p>	
<p>Session 2:</p> <ul style="list-style-type: none"> - scientific process skills need to be explicitly taught, and are planned for - teachers need to understand the progression expected in each of the scientific process skills. - focussed assessment of specific process skills supports pupil progress over time <p>This session:</p> <p>Substantive Knowledge Seed germination and healthy plant growth</p> <p>Disciplinary Knowledge</p> <ul style="list-style-type: none"> - prediction - progression from guess to hypothesis 	<p>plan for the teaching and development of process skills appropriate to the topic and nature of investigative work at hand, alongside substantive knowledge and conceptual understanding being taught</p> <p>assess scientific process skills alongside substantive knowledge being taught</p>
<p>Session 3:</p> <ul style="list-style-type: none"> -scientific process skills in fair-testing and comparative testing need to be explicitly taught 	<p>plan appropriately for pupils to be able to plan for, and carry out a fair-test investigation, providing support but allowing pupils to take ownership and plan and make choices independently, so to avoid practical work being overly illustrative and teacher led</p>



<ul style="list-style-type: none"> - scaffolding and modelling of fair testing supports progression of the science process skill. - progression in fair and comparative testing moves through a clear progressive sequence. - planning will need to take account of the needs of a range of learners - develop subject knowledge required to teach the following with confidence: Substantive Knowledge <ul style="list-style-type: none"> - Forces Disciplinary Knowledge <ul style="list-style-type: none"> - planning a fair test - using a planning board 	<p>plan appropriately for a range of learners, ensuring modelling and scaffolding is planned for, and know when to remove such approaches to allow pupils greater independence in their investigative work and secure pupil progress in disciplinary subject knowledge (process skills).</p>
<p>Session 4:</p> <ul style="list-style-type: none"> - there is an order of progression in graphing data, using quantitative measurements enabling data to be represented in graphs <ul style="list-style-type: none"> - concrete (people, cubes, etc) and visual representations (pictograms, block graphs, line graphs, scatter graphs) of scientific results can support children in understanding graphs as a means of representing data - that 2 sets of numerical data must be gathered in order for children to present their data visually - develop subject knowledge required to teach the following with confidence: Substantive Knowledge 	<p>teach the disciplinary knowledge needed to support pupils to record and present data appropriately depending on type of investigation, and age appropriately to secure learning and progress</p> <p>supporting pupils further to select appropriate variables depending on the graphing skills children need to develop.</p> <p>support pupils in observing and measuring with increased accuracy using appropriate measures for progression</p>



<p>Wider range of topics: 3-7 - Topics linked to EYFS/KS1 5-11 - Topics linked to KS2</p> <p>Disciplinary Knowledge Recording Presenting evidence</p>	
<p>Session 5:</p> <ul style="list-style-type: none"> - the importance of creative approaches when teaching science whilst ensuring concepts are learned and understood - there are a range of contexts for science investigative activity, including cross curricular learning which supports intrinsic motivation, and develops intellectual curiosity - problem solving approaches are valuable in further engaging and motivating children to learn and secure conceptual understanding. - adaptive teaching can support children in alternatives to report writing to communicate findings - pupil choice further drives intrinsic motivation and develop intellectual curiosity in scientific enquiry - develop subject knowledge required to teach the following with confidence: <p>This session:</p>	<p>take into account pupils own experience and interests, motivating pupils to take ownership of their learning, but maintaining the needs for relevant and purposeful learning that builds on previous knowledge and takes account of prior learning and experience to secure development and progress.</p> <p>Plan for science within meaningful and stimulating contexts that will support pupils making connections, within the subject and across the curriculum as appropriate</p>

<p>Substantive Knowledge This will relate to an age-appropriate children’s story book</p> <p>Disciplinary Knowledge This will link to a chosen activity stimulated by a selected children’s story.</p>	
<p>Session 6:</p> <ul style="list-style-type: none"> - different ways to organise the classroom exist (including behaviour management) to ensure pupils learn safely and make good progress - pace, use and positioning of resources, routines and roles all need to be considered when planning practical activity - a range of formative and summative assessment strategies exist to assess learning in science and secure progress - develop subject knowledge required to teach the following with confidence: <p>Substantive Knowledge</p> <ul style="list-style-type: none"> - Life processes and living things 	<p>plan, teach and assess the progression of substantive knowledge through disciplinary knowledge, through a well-planned sequence of lessons</p> <p>use assessment purposefully to inform next steps</p> <p>complete a risk assessment in relation to a group planned activity.</p> <p>organise practical science activities to maximise pupil engagement through effective classroom management.</p> <p>Sequence components of substantive and disciplinary knowledge within a lesson (and across a series of lessons) in a way that supports progression in children’s learning</p>

- Plants

Disciplinary Knowledge

- Observation

- Asking question

Plan and teach a sequence of science lessons, with mentor support, following the schools medium term panning for Science.

- demonstrate a secure application of science specific pedagogies and the integration of substantive and/or disciplinary knowledge, as appropriate, with expert colleague support.

Age phases

KS1/LowerKS2/Upper KS2

Plan and teach a well sequenced science sequence of lessons which considers the substantive and disciplinary knowledge appropriate to the phase, with an understanding of age-related expectation.

EYFS

Plan appropriate activities over time, with clear and specific aims appropriate to EYFS developmental stages, and the appropriate Early Learning Goal. Planning and teaching will take account of how children will working scientifically, engaging in early years science enquiry, alongside substantive knowledge, ensuring it fits with the schools planned curriculum and appropriate to how learning is organised within the setting.

OR,

if there is no opportunity to plan and teach science within the class/setting you are based, as above,

- plan and teach a well sequenced lesson sequence for an **alternative class/group** within the school-based training placement/setting.

OR

in the unlikely event that the opportunity to plan and teach in neither of the above scenarios (in your base class or alternative class within the school-based training placement/setting) you will be expected to:

- work with your mentor and/or science subject leader within a tutorial to discuss medium term planning, example lesson plans and evidence of pupil work linked to a sequence of science lessons that has been delivered.
- discuss the processes that made this effective for all learners, and impact on pupil progress is evident.



<h2>PHASE 3</h2>	I have learned how to.....
I have learned that:	
<ul style="list-style-type: none"> - - potential tensions exist between science knowledge and a discovery approach to scientific activity - controversial topics exist as part of the curriculum for Science, and can present challenges that need to be tackled sensitively, in the context of equality and diversity - how to approach the science curriculum to incorporate age-appropriate education to secure progress. - - science impacts our everyday life 	<ul style="list-style-type: none"> - reflect upon past experiences and how teaching may be adapted in light of new learning in the context of The Nature of Science, taking responsibility for personal professional development - draw upon and critically explore current reading, research and policy to develop an understanding of how controversial issues may be tackled sensitively through a range of appropriate approaches and strategies, in the context of The Nature of Science.
<ul style="list-style-type: none"> - controversial topics exist as part of the curriculum for Science, and can present challenges that need to be tackled sensitively, in the context of Health and well-being - children hold pre-existing ideas linked to the relevant aspects of curriculum, supporting healthy lifestyles - pupils will hold misconceptions, and that these need to be recognised and addressed so to positively impact healthy lifestyles, and society as a whole. 	<ul style="list-style-type: none"> - reflect upon past experiences and how teaching may be adapted in light of new learning in the context of Health and Well-being, taking responsibility for personal professional development - draw upon and critically explore current reading, research and policy to develop an understanding of how controversial issues may be tackled sensitively through a range of appropriate approaches and strategies, in the context of Health and Well-being. - approach the current science curriculum to incorporate age-appropriate Health education effectively

<ul style="list-style-type: none"> - a school's curriculum enables it to set out its vision for the knowledge, skills and values that its pupils will learn, encompassing the current NC/EYFS curriculum within a coherent wider vision for successful science teaching and learning - a shared understanding of the age-related expectations (ARE) and curriculum choices informs effective whole school policy - that science is potentially being 'squeezed out' of the curriculum and the implications of this for the future 	<ul style="list-style-type: none"> reflect upon theory, and research and evaluate its impact upon current policy and practice make choices that sit within current policy and school medium-term planning use exemplar materials and resources aligned with school curriculum planning (e.g. textbooks or shared resources) so to be able to carefully sequence content for learning to secure progress moderate and monitor pupil progress as part of a whole school framework
<ul style="list-style-type: none"> - a shared understanding of the age-related expectations (ARE) for progress are part of effective whole school assessment and progression in the subject - assessment of substantive and disciplinary knowledge needs to take place in a consistent and systematic way to secure progress 	<ul style="list-style-type: none"> -make accurate judgements against age-related expectations (ARE) in Science, across both subject content and working scientifically PoS. - to use and implement assessment materials effectively to support a systematic approach for consistency
<ul style="list-style-type: none"> - controversial topics exist as part of the curriculum for Science, and can present challenges that need to be tackled sensitively, in the context of Climate Change and Sustainability - learning outside the classroom (LOtC) as effective pedagogy, enhances knowledge and understanding of environmental science and its impact on our everyday lives, and wider society 	<ul style="list-style-type: none"> - reflect upon past experiences and how teaching may be adapted in light of new learning in the context of Climate Change and Sustainability, taking responsibility for personal professional development - draw upon and critically explore current reading, research and policy to develop an understanding of how controversial issues may be tackled sensitively through a range of appropriate approaches and strategies, in the context of Climate Change and Sustainability - approach the current science curriculum to incorporate age-appropriate environmental science education effectively



	<p>- identify and plan for science learning in other contexts and situations outside of the classroom, providing meaningful and stimulating contexts.</p> <p>Plan and deliver a <u>full</u> unit of work/sequence of Science lessons. Take full responsibility for planning and delivering the sequence following the school's Medium-Term planning.</p> <p>Keep detailed formative assessment notes and records of achievement throughout the unit of work/sequence of lessons demonstrating how assessment of learning informs planning.</p> <p>Carry out a summative assessment task (end of unit assessment). Evaluate the sequence of learning, and how this has impacted pupil progress.</p>
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[Home](#)