

Year 4 UG4 Curriculum Depth

Understanding how to access the breadth and depth of our ITT curriculum:

Remembering that:




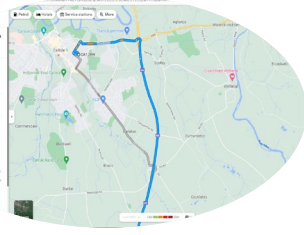
- Student teachers (trainees) are on a journey in their learning to become a teacher
- The staged expectations act as progress way markers towards the ‘end point assessment’
- The staged expectations are derived from the ITT curriculums; i.e. the things they cover before each phase of placement.
- The breadth of the ITT curriculum is outlined at the top level in our assessment grids (the modules and subjects covered- with composite knowledge outlined)- Column 3.
- Student teachers have 2 types of learning- **(knowledge) ‘learn that’ & (skills) ‘learn how to’**.
- Progress on placement should be seen through high quality targets (built from the curriculum) and reflective weekly reviews.

In order that our trainees remember more of what they have learnt and that you as expert colleagues (mentors) can best support their journey through effective target setting we have **included depth to the ITT curriculums**. This depth outlines the **‘essential’ knowledge (components)**.

For simplicity in accessing this information we have created this fully e-linked document; that allows you to work down from the staged expectation breath and explore the essential knowledge depth (displayed in knowledge organiser formats).

Below we show you the full range of ITT curriculum documents available (noting that as mentors we steer you towards 2 keys parts of this- green highlighting)

The purpose is to outline how a student journey through their curriculum is achieved with taught input and your mentor support along the way.

			
<p>Top level course documents- inc. Programme specification & module descriptor forms.</p> <p>We display this overview to you as a grid of the modules and sequence throughout the Programme- ‘course overview’</p>	<p>The progression of the ITT Curriculum.</p> <p>We display this to you as the ‘Staged Expectations’ *(B&D phases)</p> <p>These give you a clarity of what modules broad content and subjects have occurred and how they relate to the staged expectation- the point at which most students will be at the end of the</p>	<p>We display these to you as ‘Knowledge Organisers’</p> <p>New for 2022/23 You will be able to click through any module or subject link in the staged expectations to discover the depth of the curriculum learnt by the point in the training.</p>	<p>Session steps of knowledge & Sequence</p> <p>This can be accessed through your UPT where you feel it useful to have a session-by-session sequence of knowledge & skills build in a module or subject area.</p> <p>They contain a deeper explanation of the sequence between sessions and why we chose to teach these modules and subjects in the way we do.</p>

placement) **Breadth of curriculum- ‘learn that’ and ‘learn how to’ statements**

During this Extending phase (End point assessment), we look for trainees to build on all that they have learnt to enact the teacher standards- as laid out in assessment grids below.

These organisers outline the ‘essential (components) knowledge and skills’ learnt by our student teachers before each phase of placement.

They outline a rationale for the sequence of this learning, how the components align to the Core content framework (minimum entitlement of any ITT programme) and the core research articles/texts used to underpin the knowledge.

This depth should allow you as mentor to understand the granularity of what a student has learnt; therefore helping set targets that build on their prior learning in order to meet the staged expectations.

We use these documents internally to explore teaching quality and ensure coverage of curriculum.

Year	Phase	Enhancement	Maths, English and Early Years	Curriculum Carousel 1 Creative Arts to include Art, dance, drama & Music.	Curriculum Carousel 2	Extras	Placements
Y1 2/2	LT19401 Teaching and Learning, theories of learning and how to apply these in the classroom, Professionalism.	PEDG4401 Teaching and Learning	EAEY4001 English – Oral Communication and Reading Early Years	MATC4402 Maths Introducing	CURC4301 Science, PE, Creative Arts CURC4202 Computing, d&T, History, Geography, MFL	TCT9444 The Cumbria Teacher of Reading Safeguarding - Introduction	PLC03080 Nov – 2 weeks May – 5 weeks
Y1 2/2 3	LT19502 Inclusion, SEND, Equality and Diversity	PED05501 Learning Environments	EALC5411 English – Writing, SPaG and assessment Early Years – Developing	MAY5001 Maths Developing	CURC3301 Science, PE, Creative Arts CURC3302 Computing, d&T, History, Geography, MFL	TCT9555 The Cumbria Teacher of Reading Safeguarding – Level 1 Cert and Present.	PLC03090 Feb – 6 weeks May – 2 week experiential
Y3 23/2 4	LT19601 Subject Leadership and School Improvement	PED66601 Small Scale Research	MAEA6003 English – Writing and address own Maths – Extending Action Plan	CURC3303 Action Planning – write and address own	CURC3301 Science, PE, Creative Arts CURC3302 Computing, d&T, History, Geography, MFL	TCT9660 The Cumbria Teacher of Reading Safeguarding – CE09/PQM	PLC03095 Oct – 2 weeks March – 10 weeks Or PLC03096 (Non QTS)

BA (Hons) Primary and Early Years Education (3-11) with QTS.

Domain of ITT Learning	Staged expectation (Link to module with ITT core content framework)	BA (Hons) QTS & Primary curriculum links (know and learn)	Questions to explore with your mentor	Teacher standards that are beginning to be manifested within the context of the placement phase
Professional behaviours	Student teacher is able to demonstrate, in early ability to work with colleagues and other professionals by: <ul style="list-style-type: none"> • meeting and accepting advice • sharing resources • understanding key school policies • clearing meeting staff and reflecting on impact • talking with support staff about their role in pupils learning This is beginning to sustain a systematic approach to reflection and evaluation of their teaching and to report: <ul style="list-style-type: none"> • use of weekly reflection sheets to highlight impact of all strategies • drawing & reflecting on teaching practices within setting • considering what they have learnt in their curriculum to date • considering wellbeing and universal precautions and strategies used by professional staff (Professional behaviour 1.2.3)	LT19401: Exploring professionalisation, reflection, working with other professionals and documents CURC4202 – d&T, Computing, PE, Geography, PE, History, Geography, MFL CURC4202 – Computing, PE, History, Geography, MFL TCT9444 – Early Years – the role of the adult in an EY environment. EAEY4001 – Early Years – the role of the adult in an EY environment.	What can you see as the key professional behaviours in this setting context? How might you deploy other adults to help with learning? What can other adults collect for you to help you understand children's learning? How have you been able to talk to learning support staff about their role, expectations with learning staff? What contributes to good progress in learning?	18 Demonstrate an early ability to work with colleagues and other professionals: meeting and accepting advice and sharing resources. 20 Be able to talk to learning support staff about their role, expectations with learning staff and to impact.
Behaviour	Model and set expectations for good behaviour throughout the school environment in keeping with existing policies and routines (Managing behaviour 1.0) • Gain an understanding of whole school and specific classroom behaviour policies & strategies • Observe and be observed implementing behaviour strategies learned. • Reflect on the range of strategies you master, class teacher and yourself alongside with the group of children: weekly reflection will give opportunity to consider impact on good progress.	LT19401: Behaviour Management: grouping and barriers to learning CURC4202/COM4222 – creating appropriate learning and engaging learning activities EAEY4001 – Early Years – • Self-regulation • Intrinsic motivation – self-directed learning	How do you assess the school setting behaviour policy? What reflections have you made on how we embed this in practice? What does acceptable behaviour look like? How do we know the children understand this? What impact does behaviour have on the pupil's ability to learn? What have you noticed as the key things to do to help maintain a purposeful working environment? What sort of link is used to help gain an	27 Manage and set expectations of good behaviour throughout the school environment in keeping with existing policies and routines. 31 Become aware of and set into action different policies, procedures and needs.
Ambition, Enthusiasm, Challenge, Resilience	Understand your role in the safeguarding of young people. • Discuss where possible the role of safeguarding in school setting	PLC03080 Safeguarding EAEY4001 Safeguarding level 1 competent before placement	Early on which pupils have you identified for your pupil profiling needs? What sort of link is used to help gain an	

English Curriculum and Sequence Document	
Programme of work	Rationale for sequence
Beginning Phase	The purpose of the English curriculum relates to the progression construction approach reflecting the structure and progression of knowledge and skills in the teaching and learning of English that the students will experience when working with teachers and children on placements. Initially, while in pedagogy and skills of spoken language, reading and writing are explored independently, the semantic relationship between the different aspects is continually referenced and emphasised.
Developing Phase	Examples of key literature utilised Woolf, A. (2001) <i>Using the vocabulary gap</i> . London: Routledge https://www.routledge.com/books/details/9780415330303/ Woolf, A. and Sayer, J. (2014) <i>Using the vocabulary gap in early years: a new lesson</i> . <i>Primary Research: Assessment & School Psychology</i> , 10(1), pp. 1-147 DfE (2012) <i>The Reading Framework: Teaching the foundations of literacy</i> DfE (2014) <i>Assessment without tests</i> Other (2014) <i>Shaping English: Personalisation</i> . (2014) Research-based approaches to teaching writing in primary schools. (2014) <i>Primary English for Teachers</i> . 3rd Edition. Sage Publishing. PARKES, A. (2012) <i>Primary English for Teachers</i> . 3rd Edition. Sage Publishing. PARKES, A. (2012) <i>Primary English for Teachers</i> . 3rd Edition. Sage Publishing. PARKES, A. (2012) <i>Primary English for Teachers</i> . 3rd Edition. Sage Publishing. PARKES, A. (2012) <i>Primary English for Teachers</i> . 3rd Edition. Sage Publishing.
Emerging Phase	Other useful information Support with their own subject knowledge and use and set targets accordingly, to achieve during 2nd placement. Students also build their own knowledge of children's literature to support their teaching practice. Throughout the English curriculum explicit links are made to the ICTM modules and the importance of English in the wider curriculum. On each placement there is an expectation, where possible to plan, teach and assess a lesson based on the text in English.

Paragraph	To	Notes	To	Address Arrows	View
Subject/Module: EAEY4001 EY element		Subject/Module Leader: Lisa MacGregor for EY /Mick Croxall for English			
Learn how to – pedagogical knowledge		Evidence Base			Rationale
	Begin to find their way around the statutory framework, the Development Matters and Birth to 5 Matters	DfE (2021) Early Years Foundation Stage - statutory framework can be accessed at: https://www.gov.uk/government/publications/early-years-foundational-framework-2 DfE (2021) Development Matters - non statutory guidance can be accessed at: https://www.gov.uk/government/publications/development-matters-2 Birth to five Matters (2021) - non statutory guidance by the Early Years Sector for the early years sector. In the web version there is up to date research covering all aspects of early years. https://www.birthtofive.org.uk/resources/ Broadhead, F., Howes, J. and Wood, E. (2015) <i>Play and learning in the early years: from research to practice</i> . Los Angeles: SAGE. Bravo, T., McGehee, C. and Gibson, J. (2016) <i>Childcare and education</i> . 3th Edn. London: Hodder Education. Harvard Centre for the Developing Child - an on-line and up to date site with articles and research from this University based research organisation. DfE (n.d) (date) Moyle, J. R. (2013) <i>A-Z of play in early childhood</i> .			This is to introduce students to the statutory EYF3 and guidance materials. This is "need to know" information about the structure and the principles before we can have other knowledge and practice over this. There is an examination of play for learning which we expect is a new concept for students and one upon which many future concepts will be based.

The breadth of the curriculum can be seen in:

- Course overview & Staged Expectations

The depth of the curriculum can be seen in:

- Knowledge Organisers

Session sequences can be accessed through university staff (UPTs)

The following document allows you to view this depth of the ITT curriculum. We have linked it directly to the staged expectations (via Live hyperlink) so that you are able to understand:

- The Modules taught
- the subject knowledge and skills taught
- and the Pathway the particular student is following

BA (Hons) Primary with SEND & Inclusion (5-11) QTS

The course overview below gives a visual representation of how the curriculum is sequenced to build skills in what an ITT student will have learnt and learned how to during each year of their study at the University of Cumbria.

	Teaching studies	Inclusion	English	Phonics and early reading	Maths	Science	Foundation subs	Placement preparation	Placements
Yr 1	ESTC4020 Beginning teaching studies	INCC4010 / 4011 Barriers to learning 1/2 INCC4012 Intro to inclusion	EALC 4010 English	TCTR9444 The Cumbria Teacher of Reading Beginning	MATC 4010 Maths Introducing		CMPC4010 Beginning to teach Computing PEPC4010 PE	Safeguarding - Introduction Prevent	Beginning Nov - 3 weeks May - July 6 weeks
Yr 2	ESTC5020 Developing Inclusion module > Conference	INCC5010 Perspectives on inclusion INCC5011 Contexts	PLCC9591 English	TCTR9555 The Cumbria Teacher of Reading Developing 1	SMSC 5030 Maths and Science	SMSC 5030 Maths and Science	PLCC9591 Computing, History, Geography, MFL & EYFS SREC5010 RE / PHSE/ SMSC	Safeguarding – CEOP	Developing 1 7 weeks Apr - June
Yr 3	ESTC6020 Applying teaching Studies	INCC5012 Policy Discourses	EALC6020 English Monitoring and assessment PLCC9592 English	TCTR9556 The Cumbria Teacher of Reading – Developing 2	PLCC9592 Maths	PLCC9592 Science	PLCC9552 Music, Drama, Art, EYFS PE, Computing & MFL HUMC6010 History/ DT/ Geography	Safeguarding Level 1/2 Cert	Developing 2 6 weeks Jan to Feb May – 3 week experiential
Yr 4	ESTC6021 Extending teaching Studies	INCC6020 Dissertation INCC9024: Working with adults INCC9025: The marginalised child INCC9026: Evidence based practice M Level: INCC7001: Working with adults INCC7002: The marginalised child INCC7003 Evidence based practice		TCTR9666 The Cumbria Teacher of Reading – Extending				Safeguarding and FGM	Extending 10 weeks Jan - Mar

Education Studies Modules across the 4 Year Programme (BA QTS with SEND and Inclusion)

Subject/module curriculum sequence document ESTC4020/ 5020/ 6020/6021			
	<p>How children learn Trainees are introduced to key learning theories and explore stages of child development. We also learn about the limitations of working memory and cognitive load theory.</p> <p>Understanding Behaviour Trainees learn that behaviour is complex and that learning about the underlying causes of challenging behaviour is paramount. We also develop an awareness of the importance of developing strong relationships with our children that ensures trust and mutual respect. Trainees are given opportunities to learn about the importance of proactive behaviour management strategies such as rules, norms, and routines. We also explore different approaches to rewards and sanctions in the classroom.</p> <p>Planning for learning Trainees learn what a lesson plan is, what the component parts are and how to effectively use a plan when teaching. Through this learning we explore all the key parts of an effective lesson and the benefits of planning and thinking through timing, resources, support, and misconceptions etc.</p> <p>Effective Teaching: Evidence based teaching strategies</p> <p>Safeguarding Trainees undertake the Safeguarding and Prevent Training and gain an overview of how schools keep their children safe and the role of the teacher in doing so.</p> <p>Professional Practice Throughout the campus sessions and in preparation for placement trainees learn about the expected professional behaviours of a teacher and the wider role a teacher plays. Trainees are also introduced to reflective practices as a method of developing good practice.</p> <p>Assessing Learning: Trainees learn what formative and summative assessment is and understanding the purpose and principles of effective assessment. Trainees develop their skills of observing and listening to children, in order to understand what the children understand and can do.</p> <p>Academic Skills Through written assignments, individual and group presentations and an exam, students develop their critical reading and writing skills as they start to explore education research. Trainees are encouraged to make connections to research and theory on practice and to use the literature to support their development in the classroom.</p>	<p>Rationale for sequencing Year 1 (ESTC4020) – This is the introductory teaching studies module, and the main aim is for the trainees to learn the basics to the role of being a teacher. Some of our trainees have only had limited experience in the classroom outside of being a learner themselves, and this module brings to the surface all of the parts of a lesson and a classroom that may not have been obvious or understood.</p> <p>Year 2 (ESTC5020)– Now that the basics are in place, we start to learn about the complexities of learning in a primary classroom and the range of needs and strengths of the pupils. This requires a flexible, evidence-based approach to teaching. Student research the impact of disadvantage and explore strategies and approaches to ensure our children are supported, engaged and learn. Through this module trainees learn about how to support and challenge children who are EAL, gifted and talented, travellers, refugees and asylum seekers, children with mental health challenges, children who have suffered loss or bereavement, and BAME.</p> <p>Year 3 (ESTC6020) - In this module students are encouraged to start thinking about how they will maintain their own professional development by engaging in effective critical reflection. Students are expected to identify areas for development from their practice placements and this dictates the content of sessions which are presented through the lens of critical reflection. Issues addressed included behaviour support, effective formative assessment.</p> <p>Year 4 (ESTC6021) Students will have completed their final placement. This module consolidates learning across the programme synthesising the pedagogy, practice, and inclusion elements of the programme. In this module students prepare to enter the teaching profession by examining a range of current educational paradoxes to encourage the continued development of a critical approach to professional development.</p>	<p>Links to CCF <u>High expectations:</u> clear expectations, mutual trust <u>How children learn</u> – working memory, prior knowledge, purposeful practice and worked examples <u>Subject and curriculum:</u> misconceptions, critical thinking <u>Classroom Practice</u>– scaffolds, questioning, steps, talk, practice <u>Adaptive Teaching:</u> SEND code, pupil difference, responsive teaching <u>Assessment:</u> assessment decisions, feedback, informing planning <u>Managing Behaviour:</u> Routines, environment, regulation, motivation <u>Professional Behaviours:</u> Professional Relationships, communication</p>
Developing	<p>How children learn</p>	<p>Examples of research and evidence</p>	<p>Other useful information and links</p>

<p>Trainees continue to learn about cognitive science deepening our understanding of cognitive load theory and teaching strategies that support our limited working memory and create long term memory.</p> <p>Understanding Behaviour Trainees build on their experience of managing behaviour on placement and develop a deeper understanding of what behaviours can tell us about underlying needs, and how to support children so that they are ready to learn and can self-regulate.</p> <p>Planning for learning Building on their understanding of planning for learning, trainees learn to adapt their learning plans and activities to meet a wide range of needs. Considering adjustments to behaviour management, assessment, teaching strategies to overcome disadvantage and to challenge our diverse learners. This includes EAL, gifted and talented, travellers, refugees and asylum seekers, children with mental health challenges, children who have suffered loss or bereavement, and BAME groups.</p> <p>Effective teaching: Trainees draw on multiple sources of research to understand what is meant by effective teaching. Trainees critically evaluate evidence-based teaching strategies and apply them to their lesson plans ensuring that all pupils are supported.</p> <p>Safeguarding Prior to placement, trainees refresh and update their understanding of how to keep children safe in education and take part in the Safeguarding and Prevent Training.</p> <p>Professional Practice Through group work and connections with outside agencies, trainees understand the benefits of learning from and with others. Through learning about effective assessment trainees understand that what our children know and can do can give us feedback about the quality of our teaching.</p> <p>Assessing Learning Trainees develop their skills of effective questioning so that they can understand what children know and what the misconceptions are. Trainees also learn how to give effective feedback that takes the learner forward.</p> <p>Trainees learn about the importance of subject knowledge, identifying misconceptions and</p> <p>Academic Skills Trainees develop more independence in their research of literature learning deeply about the challenges of an inclusive group. Through presenting this learning at a conference trainees learn how to share learning with other professionals. Trainees are challenged to become experts in their field through an extensive literature review.</p>	<p>Newland, A. (2021). <i>Becoming A Teacher</i>. London. Crown House Publishing.</p> <p>Vaughn, M. Faircloth, B. (2013). <i>Teaching With a Purpose in Mind: Cultivating a Vision</i>. Available at: https://files.eric.ed.gov/fulltext/EJ1025687.pdf</p> <p>Van Kan, C. Ponte, P. Verloop, N. (2013). How do teachers legitimize their classroom interactions in terms of educational values and ideals? <i>Teachers and Teaching: Theory and Practice</i>. Issue 6. Available at: https://www.tandfonline.com/doi/full/10.1080/13540602.2013.827452</p> <p>Fox, G. (2017). <i>A handbook for teachers and teaching assistants working together</i>. London. Routledge.</p> <p>Cremin, T. Burnett, C. (2018). <i>Learning to teach in the Primary School. 4th ed'n</i>. London. Routledge.</p> <p>Kirschner, P. Hendrick, C. (2020). <i>How Learning Happens</i>. London. Routledge.</p> <p>Goepel, J. Childerhouse, H. Sharpe, S. (2014). <i>Inclusive primary Teaching</i>. Northwich. Critical Publishing.</p> <p>Sherrington, T. (2019). <i>Rosenshine's Principles in Action</i>. Woodbridge. John Catt Educational.</p> <p>Rogers, B. (2015). <i>Classroom Behaviour</i>. London. Sage.</p> <p>Poultney, V. (Ed)(2017). <i>Evidence-based Teaching in Primary Education</i>. Northwich. Critical Publishing.</p> <p>Bartlett, S. & Burton, D. (2016) <i>Introduction to Education Studies [4th Ed]</i> London: Sage</p> <p>Biesta, G., Allan, J. & Edwards, R. (2014) <i>Making a Difference in Theory</i> London: Routledge</p> <p>Boyd, P., Hymer, B. & Lockney, K. (2015) <i>Learning Teaching: Being an Inspirational Teacher</i> Northwich: Critical Publishing</p> <p>Curtis, W., Ward, S., Sharp, J. & Hankin, L. (2014) <i>Education Studies an issues based approach, 3rd Edition</i> Exeter: Learning Matters</p> <p>Green, A., Preston, J. & Germen Janmaat J. (2008) <i>Education, Equality and Social Cohesion</i>, London: Palgrave</p> <p>Kassem, D., Mufti E. & Robinson, J (2006) <i>Education Studies: Issues and Critical Perspectives</i> Maidenhead: Open University Press</p> <p>Matheson, C. & Matheson, D. (2002) <i>Educational Issues in the Learning Age</i>, London: Continuum</p> <p>Norwich, B. (2013) <i>Addressing Tensions and Dilemmas in Inclusive Education</i> London: Routledge</p> <p>Terzi, L. (2010) <i>Justice and Equality in Education</i> London: Continuum</p>	<p>Chartered College of Teaching https://chartered.college/ (students encouraged to join as ITE students)</p> <p>Education Endowment Foundation https://educationendowmentfoundation.org.uk/</p> <p>OFSTED https://www.gov.uk/government/organisations/ofsted</p>
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Developing 2	<p>What is Reflective Practice Reflective practice is necessary to ensure: Good mental health and wellbeing Professional responsibility Maintaining subject knowledge Professional development</p> <p>Assumptions Characteristics of reflective practice – open mindedness, responsibility and wholeheartedness. They will learn about the influence of assumptions on policy and practice They will learn about types of assumption and how they impact on their practice: Paradigmatic, prescriptive and causal. Students will learn about the difference between reflecting in action and reflecting on action</p> <p>Lenses Students learn about different philosophical perspectives and understand that it is possible to consider an issue a range or perspective or through different “lenses”. They learn that there are a range of approaches to education which are driven by principles arising from a variety of perspectives. Students learn about the hegemonic relationships within education Students learn about Brookfields 4 lenses in education: Student, colleague, personal and theoretical Critical Incidents Students learn that critical incidents do not need to be monumental or negative.</p> <p>Models of Reflection Students learn that there are several different theoretical models of reflection</p> <p>Adaptive Planning Students learn that barriers to learning can be minimised by</p>	<p>Students will learn how to identify and prioritise critical incidents in the classroom. They will learn that there are often alternative and multiple perspectives on an issue or incidents in the classroom</p> <p>They will learn to recognise or invite alternative perspectives from children, colleagues, and other professionals. They will learn how to give constructive feedback to colleagues and form, critique and maintain their own evidence-based perspectives. Students will learn how to recognise and describe assumptions, how they arise and how to mitigate their impact on teaching and learning. Students will be able to analyse their practice in terms of internal and external assumptions that influence their practice</p> <p>Students will learn to draw on previous knowledge and experience to respond to situations in the present Students will learn how to identify and engage with alternative perspective on issues in education.</p> <p>Students learn how to identify critical incidents in practice Students learn how to undertake a critical incident analysis Students learn how to write reflectively Students learn how to use models of reflection to structure their thinking. Students learn how to analyse incidents in their teaching</p>		
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	<p>planning teaching that maximises participation. Students learn that difference is normal</p> <p>Supporting Behaviour Students learn that children sometimes express their feelings through their behaviour. Students learn that teacher can anticipate and plan for behaviour management. Students learn about attachment</p> <p>Assessment The impact of assessment on learning Formative Assessment Questioning Critiquing theories- both recent and discredited</p> <p>Reflecting on a critical incident on placement Students will learn that there can be a range of perspectives on an incident Introduction to Gobbets Students learn about using research to critically evaluate educational claims Students learn common heuristics that can influence decisions made</p>	<p>Students learn how to improve their practice as a result of reflection Students learn how to plan teaching that allow all children to learn in the context of the whole class teaching and learning. Students learn how to recognise the signs of escalating levels of behaviour Students learn appropriate approaches to de-escalating situations</p> <p>Use questioning for in the classroom Plan teaching based on formative assessment</p> <p>Students will learn to consider the range of perspectives on an issue and respond to elements of practice that they can build on Students will learn to give and receive constructive feedback to developing their practice Students learn how to use research to evaluate educational claims and media reporting on educational issues Use their knowledge or heuristics to recognise techniques used to influence thinking and decisions made in education</p>		
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Extending	<p>Students will have completed their final placement.</p> <p>In this module students prepare to enter the teaching profession by examining a range of current educational paradoxes to encourage the continued development of a critical approach to professional development.</p> <p>Students will learn how to:</p> <ul style="list-style-type: none">develop a systematic and research informed understanding of current paradoxes with educationOffer a critical evaluation of the impact of these paradoxes within education on children, schools and societyEvaluate the impact of these paradoxes on equity and equalityInvestigate and evaluate the relationship between their personal professional experience to date and current educational paradoxes.		
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INCC Modules across the 4 Year Programme (BA QTS with SEND and Inclusion)

Subject/module curriculum sequence document			
Beginning	<p>In the first year students are introduced to the four broad areas of SEND. The programme takes a “barriers to learning” approach – identifying and responding to needs rather than labels.</p> <p>In semester two students look at key concepts of Inclusion including Medical and Social models of disability and the key terms of Special Educational Needs, impairment and Disability and Person First Language</p> <p>Students will consider how children bring diversity to the classroom.</p> <p>Students will be encouraged to engage with high quality sources of information and to begin to build a professional portfolio.</p>	<p>Rationale for sequencing</p> <p>Students study two increasingly entwined strands of inclusive practice – meeting the needs of children with SEND and celebrating supporting diversity in the classroom.</p> <p>In the first year students focus on the individual child, developing skills of observation and identification in conjunction with the staged expectations of their placements. Student’s begin to understand that the class teacher is responsible for all children in their class. Alongside this they are introduced to key constructs in inclusive discourse</p> <p>In the second year students begin to consider how they will plan for the individual child with SEND and how they will implement strategies and support for individual children experiencing barriers to their learning. Alongside this they will consider the diversity of the classroom and how teacher’s celebrate and support children with diverse experiences. Student’s begin to articulate and enact their responsibilities to meet the needs of all children in their class in line with the staged expectations for their first developing placement.</p> <p>In the third year students are able to embed inclusive practice and pedagogy into their own practice and prepare to advocate for inclusion in their school communities by contributing knowledgably in policy development. This year focusses on applying research and theory in practice in line with the staged expectations for their second developing placement</p>	<p>Links to CCF</p> <p><u>High expectations</u>: clear expectations, mutual trust</p> <p><u>How children learn</u> – working memory, prior knowledge, purposeful practice and worked examples</p> <p><u>Subject and curriculum</u>: misconceptions, critical thinking, building confidence</p> <p><u>Classroom Practice</u> – scaffolds, questioning, steps, talk, practice</p> <p><u>Adaptive Teaching</u>: SEND code, pupil difference, responsive teaching</p> <p><u>Assessment</u>: assessment decisions, feedback, informing planning</p> <p><u>Managing Behaviour</u>: Routines, environment, regulation, motivation</p> <p><u>Professional Behaviours</u>: Professional Relationships, communication</p>
	Developing 1	<p>Students continue to develop their knowledge and understanding of the SEND Code of Practice learning how to identify and support the needs of children with SEND. Students become familiar with the SEND Code of Practice Graduated Approach including working with parents and the voice of the child to produce individual learning plans in a range of case studies.</p> <p>In conjunction with ESTC5020 students will develop their understanding of diversity in the classroom and how adaptive planning can support children with SEND.</p> <p>Students will understand how inclusive principles are reflected and enacted in their own emerging philosophy of education and pedagogy.</p> <p>Students will engage with the dilemmas of inclusion: identification, location and curriculum.</p>	<p>Examples of research and evidence</p> <p>Carpenter, B., Egerton, J., Cockbill, B., Bloom, T., Fotheringham, J., Rawson, H. & Thistlethwaite, J. (2015) <i>Engaging Learners with Complex Learning Difficulties and Disabilities</i> London: Routledge</p> <p>Farrell, M. (2010) <i>The effective Teachers Guide to Sensory and Physical Impairments: Sensory, Orthopaedic, Motor and Health</i> London: Routledge</p> <p>Farrell, M. (2010) <i>The effective Teachers Guide to Moderate, Severe, and Profound Learning Difficulties (Cognitive Impairments)</i> London: Routledge</p> <p>Frederickson, N. & Cline, T. (2015) <i>Special Educational Needs, Inclusion and Diversity [3rd Ed]</i> Maidenhead: Open University Press</p> <p>Norwich, B. (2007) <i>Dilemmas of Difference, Inclusion and Disability: International Perspectives and Future Directions</i> London: Routledge</p> <p>Simmons, B. & Watson, D. (2014) <i>The PMLD Ambiguity: Articulating the Life World of Children with PMLD</i> London: Karnac</p> <p>Thomas, G. & Vaughan, M. (2004) <i>Inclusive Education. Readings and Reflections</i> Maidenhead: Open University Press</p>
Developing 2	<p>At this point students will synthesise theory and practice looking at how an inclusive society is reflected in the environment of the classroom. Working through principles of the European Agency for Special Needs and Inclusive Education, UN Sustainable Development Goals https://www.european-agency.org/sites/default/files/Profile_for_Inclusive_Teacher_Professional_Learning_0.pdf</p> <p>Students will consider theoretical and practical issues around the concept of the “achievement gap” and addressing educational disadvantage in schools.</p> <p>Community and policy level</p>		

<p>u x</p>	<p>Students use their academic skills to pursue a special study in an issue of SEND or Inclusion of their own choice.</p> <p>Students explore the strengths and challenges of multi –agency working, they consider the role of the teacher in a multiagency team</p> <p>Students extend their consideration of the impact of educational and social marginalisation on the outcomes for children in primary school</p> <p>Students revisit Barriers to Learning, consolidating their knowledge and experience from placement and furthering their ability to recognise and meet children’s needs in the classroom</p> <p>These final 3 modules can be extended to the award of Post Graduate Certificate in SEND and Inclusion on successful completion of Undergraduate award.</p>	<p>Wearmouth, J. (2015) <i>Special Educational Needs and Disability: The Basics</i> London: Routledge</p>	
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English Curriculum and Sequence Document

Programme of work

Beginning Phase	<p>In this phase students engage with the skills and pedagogy relating to understanding the role of, and teaching the knowledge and skills of, Spoken Language. This is followed by developing pedagogy and subject knowledge related to the teaching and learning of reading, taking into account the Simple View of Reading and focusing on comprehension skills and the application of decoding, including fluency. The importance of reading for purpose and developing a love of reading is emphasised. They learn to plan and teach for reading acquisition and development for a range of text types and purposes; focusing on a shared approach and linking to the constructivist learning theories. The students learn how to identify best practice and try out pedagogies in a mini teach.</p>
Developing Phase	<p>Developing 1</p> <p>In this phase the students build on their knowledge of spoken language and reading, to develop their understanding of how these elements of English support and develop children's writing skills, including, but not limited to, spelling, vocabulary, grammar and punctuation. The students learn to plan a sequence of lessons, making clear links to prior reading and subject knowledge and incorporating spoken language. They plan and teach a guided writing activity incorporating a range of adaptive tasks (including but not limited to the role of other adults) and demonstrating an awareness of formative assessment.</p>
Developing 2	<p>In this phase the students build on their knowledge of all aspect of English in relation to assessment. The students develop their understanding of statutory and non-statutory assessment as well as assessment types, including formative, summative and diagnostic. The focus then highlights how assessment can be adapted to support the needs of diverse learners, including EAL and SEND and supports the students in developing intervention strategies. The students engage with practical activities linked to the assessment of children's literacy skills and the analysis of data to support teaching and learning.</p>

Rationale for sequence

The sequence of the English curriculum relates to the neo-Vygotskian constructivist approach reflecting the structure and progression of knowledge and skills in the teaching and learning of English that the students will experience when working with teachers and children on placements. Initially, while the pedagogy and skills of spoken language, reading and writing are explored independently; the symbiotic relationship between the different aspects is continually referenced and emphasised.

Examples of key literature utilised

Quigley, A. (2018) *Closing the vocabulary gap*. London : Routledge
<https://educationendowmentfoundation.org.uk/school-themes/literacy/>

Moran, E. and Moir, J. (2018) 'Closing the vocabulary gap in early years: Is "Word Aware" a possible approach?', *Educational & Child Psychology*, 35(1), pp. 51–65.

DfE (2021) *The Reading Framework; Teaching the foundations of literacy*

DfE (2018) *Assessment without levels*

Ofsted (2012) *Moving English Forward*

Higgins, S (2015) 'Research-based approaches to teaching writing' in Waugh, D, Bushnell, A and Neaum, S (eds) *Beyond Early Writing*. Northwich: Critical Publishing

Waugh, D. (2021) *Primary English for Trainee Teachers*. 3rd Edition. SAGE Publishing.

Palincsar, Annemarie & Brown, Ann. (1984). Reciprocal teaching of comprehension-fostering and monitoring activities. *Cognition and instruction*. 1. 117-. 10.1207/s1532690xci0102_1. (Accessed: 6 September 2021)

Medwell, J. et al (2021) *Primary English: Knowledge and Understanding* London: Sage

Core Content Framework links

High Expectations – Teacher expectations (3) Impact of high quality teaching (6)

How Pupils Learn— students learn that the way they structure and support learning in phonics draws directly from theories around working memory, activating prior knowledge etc. (all statements)

Subject and Curriculum— students are regularly checking their own subject knowledge. Teacher subject knowledge is crucial (all statements)

Classroom practice – students learn to plan effective opportunities (all statements)

Adaptive Teaching - teaching small group and whole class phonics , how to respond to the needs of all (all statements)

Assessment – using different kinds of assessment, understand prior learning to support next steps. (all statements)

Other useful information

Students audit their own subject knowledge each year and set targets accordingly, to achieve during B, D and E placements. Students also build their own knowledge of children's literature to support their teaching practise.

Throughout the English curriculum explicit links are made to the TCTR modules and the importance of English in the wider curriculum.

On each placement there is an expectation, wherever possible to plan, teach and assess a lesson/series of lessons in English.

Maths MATC4010/SMSC5030/ PLCC9592

Programme of work

Beginning Phase	In this phase students are firstly asked to consider their own attitude to mathematics. Throughout the module they work on their confidence and an understanding of the value of mathematics in the world we live in. Discussion develops around the key features of an effective maths lesson with an emphasis on the use of resources. Links are continually made to established theorists such as Bruner and other modules are referenced. Practical activities are used to make connections with pedagogical theory helping the students develop a sense of what underpins good classroom practice. Specific areas of learning are covered looking at how teaching can be adapted to meet the needs of all children. The assignment involves the creation of a resource that is used whilst on placement. The students plan and then work with a small group of children assessing and collecting evidence around the activity.
Developing Phase	In this developing phase we look to build on the confidence and understanding the students have. We look at the importance of problem solving and develop an definition of problem solving in mathematics. The importance of strategies to develop mathematical thinking is discussed with links to theory. Problem solving through different areas of mathematics are considered along with cross curricular opportunities. Before placement we build on the lesson planning from year one and look at how we can develop a sequence of lessons. Whilst on placement the students collect evidence of problem solving and reasoning and this is used to support their assignment.
Extending Phase	This final phase is used to review our understanding and consider current issues in mathematics. Maths Mastery is examined and some of the challenges this approach to learning can bring. Statutory assessment is discussed and it's place in the assessment of children. Students look closely at working with EAL children in a mathematics lesson and also the importance of multicultural opportunities. We look at adapting lessons to ensure all children are included and look at strategies to overcome barriers to learning.

Rationale for sequence

The mathematics is sequenced to help students become confident, enthusiastic and capable teachers of the subject. By starting with the students own attitudes and fears we can work on any misconceptions and start to get the students to develop a love and understanding of the subject. The key features and the theories that underpin effective teaching strategies are modelled and developed with practical ideas linked to school placements. As confidence grows the importance of problem solving, the connections of different areas of mathematics and the opportunities of cross curricular approaches more readily understood. Finally, the skills and knowledge gained from earlier phases is developed through key educational issues leading to a greater understanding of what makes a great teacher of primary mathematics. Running through all the phases is the importance of subject knowledge.

Examples of key literature utilised

Hansen, A. (ed.) (2020) Children's errors in mathematics . 5th edition. London :: Learning Matters
Haylock, D. (2019) Mathematics explained for primary teachers /. 6th edition /. Edited by R. Manning. Los Angeles :: SAGE
Boaler, J. (2016) Mathematical mindsets : unleashing students' potential through creative math, inspiring messages, and innovative teaching /. Edited by C. Dweck. San Francisco, California :: Jossey-Bass
Garry, T. (2020) Mastery in Primary Mathematics [electronic resource] / A Guide for Teachers and Leaders . London :: Bloomsbury Education

Core Content Framework links

High Expectations – Teacher expectations
Impact of high quality teaching (1-6)
How Pupils Learn— students learn that the way they structure and support learning in mathematics. It draws directly from theories around working memory, activating prior knowledge etc. (all statements)
Subject and Curriculum– students are regularly checking their own subject knowledge. Teacher subject knowledge is crucial (2-5,7,8,)
Classroom practice – students learn to plan effective opportunities (all statements)
Adaptive Teaching - teaching small group and whole class mathematics, how to respond to the needs of all (1-4,5,6)
Assessment – using different kinds of assessment, understand prior learning to support next steps. (1,2,4-6)

Other useful information

Students audit their own knowledge of mathematics and set targets to work on based on their individual subject knowledge and experience.
The module supports students in understanding pedagogical theory but also develops their subject knowledge
They will have mathematics activities and a demo lesson modelled to them and consider what and how they would help the children to learn.
On each placement students will observe, teach and assess mathematics , developing their practice over the three phases.
At the end of each module students have a tutorial looking at their tracking document and discussing personal targets.

Programme of work

Beginning Phase	In this phase students engage with the Simple view of reading, and Rose’s principles of effective SSP. This is followed by early phonics, the importance of speaking and listening, phonics for EAL. Students understand the importance of progression within a scheme and explore examples. Students understand the structure of a phonics lesson using the simple code and how to assess. They learn how to segment and blend and use the alphabetic code. They learn key language (phoneme, grapheme etc). They learn to plan and structure a phonics lesson using the simple code, how to identify best practice and engage in a mini teach
Developing Phase 1	After beginning placement, students continue to explore children’s phonological progression into the complex code and beyond. There is more focus on the complex code, phonics into spelling and teaching tricky words. They explore statutory phonics assessment in KS1. They move on to consider transition to KS2, ‘word reading’ requirements and key terms such as ‘morpheme’. Students learn how to teach children adjacent consonants, use phoneme frames and teach encoding and decoding. They learn how to assess the use of the complex code, plan a spelling session and use morphemic knowledge.
Developing Phase 2	After developing one placement students develop familiarity with phonics and reading assessment and tracking. They plan and teach a series of synthetic phonics lessons that are tailored to meet the needs of individuals with identified learning challenges.
Extending Phase	They develop their use of teaching assistants in the classroom and look at how to identify and support a range of reading abilities. Following this students carry out a miscue analysis running record on a child’s reading and explore some of the implications for them in terms of book choice and support moving forward, particularly around comprehension. The module finishes by looking at reading interventions, catch up programmes and a closer look at reading recovery.

Rationale for sequence

This phase provides knowledge and understanding of the key terminology and concepts that students require to make sense of what they are seeing in school. The 1st seminar introduces students to the precursors to successful learning in phonics. Phonics will be one of the key areas of the curriculum that students will come across when they engage in school based learning. It is important that they are aware of how and why phonics schemes are used in schools to plan for children’s learning. Students reflect on learning in school and how their understanding of the teaching of phonics has developed through their teaching and assessment of children. Their knowledge of the children’s learning journey is extended to consider the importance of focusing on the skill of segmenting words with adjacent consonants. Students are then ready in their learning and development to go deeper into intervention support for reading, assessing individual need and gaining some tools to support this process.

Key literature utilised

Jolliffe, W., Waugh, D. and Carss, A. (2019) *Teaching systematic synthetic phonics in primary schools* . 3rd edition. London: Learning Matters.
 Quigley, A. (2018) *Closing the vocabulary gap* . London : Routledge
<https://educationendowmentfoundation.org.uk/school-themes/literacy/>
 Moran, E. and Moir, J. (2018) ‘Closing the vocabulary gap in early years: Is “Word Aware” a possible approach?’, *Educational & Child Psychology*, 35(1), pp. 51–65.
 Duff, F. J., Mengoni, S. E., Bailey, A. M. and Snowling, M. J. (2015) ‘Validity and sensitivity of the phonics screening check: implications for practice’, *Journal of research in reading*. Blackwell Publishing Ltd, 38(2), pp. 109–123

Core Content Framework links

High Expectations – Teacher expectations (3) Impact of high quality teaching (6)
How Pupils Learn— students learn that the way they structure and support learning in phonics draws directly from theories around working memory, activating prior knowledge etc. (all statements)
Subject and Curriculum– students are regularly checking their own subject knowledge. Teacher subject knowledge is crucial (2-5,7,9,10)
Classroom practice – students learn to plan effective opportunities (all statements)
Adaptive Teaching - teaching small group and whole class phonics , how to respond to the needs of all (1-4,5,6)
Assessment – using different kinds of assessment, understand prior learning to support next steps. (1,2,4-6)

Other useful information

e.g. links to English Learning Journal, connections to other modules, the role of student-led learning, how this module wraps around placement

Students audit their own beginning knowledge of phonics and set a target to work on based on their individual subject knowledge and experience.
 Our module supports students in following the learning journey of a child in their progress in learning to read.
 They have phonics activities and a demo lesson modelled to them and consider what and how they would help the children to learn. This takes place immediately prior to placement. Students plan and deliver a taught session to the group, giving and receiving feedback in the first two phases.

On each placement students observe, teach and assess phonics, developing their practice over the three phases.
 After developing placement, Students will take a phonics subject knowledge audit prior to returning to university-based learning – this is marked in the first session back. It identifies student who need additional input and support

Developing 1	<p>Introduction to Primary science and Working Scientifically (Disciplinary Subject knowledge) Interrelationship between Disciplinary and Substantive subject knowledge Subject integrity and the NC PoS for Working scientifically The nature of an enquiry subject That careful planning can support scientific literacy and knowledge. The Scientific Toolkit (Observation, Comparison, Exploration, Testing, Modelling plus Reading, Writing and Talking) The progressive nature of the toolkit and how planning can be adapted to meet all learners’ needs Using NC PoS, plan learning experiences which encompass Working Scientifically and a specific concept of substantive knowledge.</p>	<p>Component Substantive Knowledge Observation using range of senses Comparison based on observations</p> <ul style="list-style-type: none"> • Similarities and difficulties • Sorting several objects/ phenomena • Grading based on shared criteria <p>Exploration finding cause and effect links to explain comparisons Testing to formalise cause and effect links</p> <ul style="list-style-type: none"> • Fair / Controlled Variable • Pattern seeking • Test to Destruction <p>Modelling abstract concepts</p>	<p>Rationale for Sequencing</p> <ul style="list-style-type: none"> • Working Scientifically is the bedrock of all professional scientific enquiry and underpins good practice in primary science practice. • A thorough understanding of the different forms of Working Scientifically enables trainees to plan purposeful activities for learning across age phases. • Learners can find it difficult to transfer and apply knowledge, so context is important to make clear the links between scientific learning in the classroom and real-life problem solving. • Initially trainees focus on planning and delivering scientific learning experiences in their Beginning placement. • The disciplinary subject knowledge in science, in terms of Working scientifically, aligns closely with children’s ability to observe and explain their world in scientific terms. By close attention to the development of progressive thinking, students can plan effective learning experiences and develop questioning techniques which challenge and inspire learners. • Trainees become skilled at assessing scientific knowledge and understanding and then enact this skill during their Developing placement. • Ability to analyse National Curriculum Programmes of Study in terms of the composite knowledge and the components that build it allows trainees to plan sequences of learning experiences which are generative and build robust knowledge. • Trainees become skilled at planning, delivering and assessing scientific learning, enacting this during the Extending placement. <p>Examples of research and evidence Abrahams I; Reiss, M J; Sharpe, R. (2014) <i>The impact of the 'Getting Practical: Improving Practical Work in Science' continuing professional development programme on teachers' ideas and practice in science practical work.</i> Research in Science & Technological Education, Vol.32 (3), p.263-280</p> <p>Bartos, SA; Lederman, NG (2014). <i>Teachers' knowledge structures for nature of science and scientific inquiry: Conceptions and classroom practice.</i> Journal of Research in Science Teaching, Vol.51 (9), pp.1150-1184</p> <p>Lederman, NG; Lederman, JS and Antink, A. (2013) <i>Nature of science and scientific inquiry as contexts for the learning of science and achievement of scientific literacy.</i></p>	<p>Links to CCf <u>High Expectations</u> – Teacher expectations (3) Impact of high-quality teaching (6) <u>How Pupils Learn</u> – prior knowledge (2), weak knowledge leading to misconceptions (6) <u>Subject and Curriculum</u> – secure, critical knowledge with awareness of common misconceptions, structuring foundation components to build secure complex concepts. (2-5,7) <u>Classroom practice</u> – sequencing, scaffolding, questioning and high-quality talk, grouping (2,4-7, 9 10) <u>Adaptive Teaching</u> - support for all learners without creating artificial barriers, (1, 4,) <u>Assessment</u> – ability to plan and use fast, efficient assessment and provide feedback, both written and verbal. (1-7) The Undergraduate programme allows extended time for concepts such as the progression of conceptual development to be retrieved, revisited and enacted on placement at increasingly skilful levels.</p> <ul style="list-style-type: none"> • The Undergraduate programme allows extended time for concepts such as the progression of conceptual development to be retrieved, revisited and enacted on placement at increasingly skilful levels. <p>Other useful information and links The interrelationship between Working Scientifically and Substantive knowledge is key to the delivery of quality science teaching and learning.</p>
	<p>Testing in Context (e.g Spinners and Greasy Joe’s Café) Retrieve knowledge of forms of testing (Controlled variable, Pattern Seeking, Test to Destruction) The stages of a scientific enquiry The role of enquiry in the generation of new knowledge for learners and adapting planning in terms of investigative knowledge. Develop understanding of the interrelationship between disciplinary and substantive knowledge (<i>Materials and their properties: thermal insulation, dissolving, absorption, filtration</i>) The role of context in the ability to transfer learning and retain it Reading for scientific understanding and Modelling concepts The value of teacher subject knowledge and self-assessment of ability to gain and apply appropriate subject knowledge for teaching.</p>	<p>Component Substantive Knowledge In all forms of testing (Fair/controlled variable, Pattern Seeking, Tests to Destruction)</p> <ul style="list-style-type: none"> • Raising area of Investigation through identification of possible cause and effect link • Variable scan • Formulation of testable question • Identification of key variables • Prediction and Hypothesis formation • Planning test methods • Carrying out test • Analysing raw results and presenting • Analysis of results • Explanation of results in terms of current scientific knowledge from reading (employing models) • Evaluation of test methods 		
	<p>Fire and Ice (Concept Formation)</p> <ul style="list-style-type: none"> • Scientific misconceptions and their persistence into adulthood (importance of checking own knowledge prior to planning) • Importance of analysing a concept prior to planning, i.e., does research suggest children hold misconceptions; concrete or abstract; have all children had prior experience (challenging disadvantage)? • <i>Physical Changes of state</i>: concrete and abstract concepts. • Structuring experiences to scaffold learners before introduction to abstraction (constructivist principles: Hands-on Minds-on) 	<p>Component Substantive Knowledge Solids and liquids in concrete form (ice and water) Physical properties to senses Physical change from solid to liquid and liquid to solid (reversible change) and role of heat Gas a form of matter which not as easily detected by senses Role of heat energy in change from solid to liquid to gas using physical experiences (jelly) Role of heat energy in change using abstract concepts: kinetic particle model</p>		

	<p>Light and Seeing: Component and Composite knowledge Some concepts built up of smaller concepts Specific misconceptions which can destabilise learning Value of Teacher subject knowledge to structure effective curricula and sources of support.</p>	<p>Component Substantive Knowledge Light is needed to see There are sources of light Light travels from sources Light travels in straight lines Light can be reflected from shiny surfaces (reflective) Reflected light continues to travel in a straight line Light can be scattered by non-reflective surfaces Scattered light continues to travel in a straight line Light that travels from a surface into the pupil of the eye enables seeing.</p>	<p>International Journal of Education in Mathematics, Science and Technology', Volume 1(3), pp 138 – 147</p> <p>Osborne, J. (2015). <i>Practical work in science: misunderstood and badly used</i>, in 'School Science Review', Vol. 96, Issue 357, pp 16 - 24.</p> <p>Osbourne, JF. (2019). Not "hands-on" but "minds-on": a response to Furtak and Penuel. Science Education. vol 103. pp 1280 -1283</p>	<p>One without the other is of little educational and practical value. The aim of science is to understand the world and to be able to apply knowledge to gain new understanding in a generative process. The Working Scientifically toolkit provides students will a range of enquiry methods, including different scientific Investigative methods (Fair/controlled variable, Pattern Seeking and Tests to Destruction) which can be used to plan a challenging science curriculum in school. The use of scientific vocabulary is a critical step on the journey towards scientific literacy and development of this "scientific language" is facilitated by teachers who possess good subject knowledge. The auditing materials provided are specifically designed to support students in using this language effectively in their teaching. Worked examples are used in sessions and learning materials, and students are explicitly shown how to apply these tools to all areas of the science curriculum.</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Developing 2</p>	<p>Assessment and Adaptive Planning: Electricity Retrieve knowledge of <i>Working Scientifically</i> (Observation, Comparison, Exploration, Testing, Modelling plus Reading, Writing and Talking) The mixed experienced class and need for adaptive planning The progression of scientific conceptual thinking (application via worked examples (<i>plants, dissolving</i>) and own example <i>switches</i>. Supporting development of scientific vocabulary and the value of a good vocabulary for scientific attainment Socratic dialogue and high-quality questioning to support learning: Hands-on Minds-on Practice assessing work from real children identifying key indicators and providing quality feedback. Abstract concepts and Modelling for upper KS2 learners who require a curriculum at Greater Depth. Misconceptions associated with electrical circuits. Analysis and planning for conceptual change. Stages of thinking and Modelling are generic across the curriculum, not specific to electricity. Auditing subject knowledge, especially in terms of common misconceptions is essential for teachers.</p>	<p>Component Substantive Knowledge Construct a simple series circuits using wires, power cell/ battery and various components (buzzers, bulbs, motors) Impact of change quantity / voltage of power Add switches of various types (snap, pressure, two-way, reed) The nature of circuit to be an unbroken chain of conductive material normally metal, which continues throughout all components Electrical current as an abstract concept – not detectable by senses Short circuits Models for electrical current: physical "human" circuits passing objects, or rope with knots. Analogies such as water fountain in a pond Solar system model of the atom and role of electrons in electrical charge and current Electrical conductors and insulators in terms of movement of free electrons.</p>		
	<p>Progression of Concepts: Forces Inherent challenges when teaching forces –entirely abstract as only effect detectable; only live on Earth and so misconceptions are rife. Composite knowledge is built from components Constructivist principles [Hands-on Minds on] and strategies to effectively pre-assess learners <i>Friction</i>: self-assessment; vocabulary development; concrete experience to build foundations for KS3 learning <i>Water Resistance</i>: concrete Exploration experiences; physical and abstract explanations. Stages of conceptual thinking from Observation to Abstraction; adaptive planning. <i>Gravity</i>: effective pre-assessment strategies; self-assessment; thought experiments and pupils working at Greater Depth; common misconceptions. <i>Air Resistance</i>: abstraction; analysis of misconception that air is nothing and planning challenging experiences; heavy things and light things misconception.</p>	<p>Component Substantive Knowledge Newtonian ideas – objects which are not moving will continue not to move until a force is exerted upon then and objects which are in motion will continue in that motion until a force is acted upon them <i>Friction</i> – effect can be seen but not the force</p> <ul style="list-style-type: none"> • Link between friction and surfaces • High and low friction situations • Model high and low friction inducing surfaces using toothbrushes. <p><i>Water resistance</i></p> <ul style="list-style-type: none"> • Relationship between shape and resistance • Size not mass • Physical explanation using appropriate terminology • Abstract explanation using kinetic particle model <p><i>Gravitation</i></p> <ul style="list-style-type: none"> • Pull not push • Not related to air pressure, rotation of Earth, magnetic core of Earth – use of thought experiments. • Gravity is the Earth and other planets' pull • Gravity is directly related to mass of planet • Gravity is directly related to distance from the planet 		

Q4 CURC Computing Subject/module curriculum sequence document CMPC4010/ PLCC9591/ PLCC9592

		Rationale for sequencing	Links to CCF
Beginning	<p>The students are introduced to the aim of the NC, its three strands and their characteristics alongside the expectations for children at the end of KS1 and KS2 in each strand of the Computing NC. There is a focus on Computational Thinking (CT) and the Computer Science (CS) strand and associated vocabulary, concepts and a range of pedagogical approaches and resources with the focus on the importance of subject knowledge and engaging learners.</p> <p>As preparation for their Beginning placement, we also look at the progression of knowledge, skills and understanding developed in the primary school and how individual lesson planning fits into this learning journey.</p>	<p>Computing is sequenced to help students become confident, enthusiastic, and capable teachers of the subject. By developing student` subject knowledge in areas of computing where there is generally least confidence we can work on any misconceptions and start to get the students to develop a love and understanding of the subject. Computer Science and Computational Thinking, which is at the heart of the Computing NC are therefore introduced first, followed by Information Technology. Digital Literacy is `dripped` into the different modules with specific inputs on online safeguarding included as part of preplacement input.</p> <p>By the end of the three modules, students will have developed their subject knowledge in the three strands, so they feel more confident to deliver the computing NC in school. Their knowledge and understanding of planning will have developed from single lessons to sequences to thematic approaches. Students will have been introduced to practical ideas linked to school placements and key features and theories that underpin effective teaching of computing, including subject specific pedagogy which will have been modelled and evaluated. There will have been opportunities to observe and personally enact these in school.</p>	<p><u>High Expectations:</u> Teacher expectations, Impact of high-quality teaching (2-4, 6)</p> <p><u>How Pupils Learn:</u> students learn that the way they structure and support learning in computing should draw directly from theories around working memory, activating prior knowledge etc. (all statements)</p> <p><u>Subject and Curriculum:</u> students are regularly checking their own subject knowledge. Teacher subject knowledge is crucial. Providing sufficient opportunity for pupils to consolidate and practise applying new knowledge and skills (1-8)</p> <p><u>Classroom practice:</u> students learn to plan effective opportunities for learning using a range of interactive strategies (1-10)</p> <p><u>Adaptive Teaching:</u> teaching small group and whole class computing, how to respond to the needs of all (1-5,7)</p> <p><u>Assessment:</u> using different kinds of assessment, understand prior learning to support next steps (1,2,4-6)</p> <p><u>Managing behaviour:</u> using a variety of approaches that ensure children can access learning conveyed with and through digital technology (1,2,4,7)</p> <p><u>Professional behaviours</u> – knowing where to go for help and guidance (1-2,7)</p>
	<p>In this developing phase we look to build on students` confidence and understanding. The focus is on the Information Technology (IT) strand, the key concepts and skills that need to be taught and suitable pedagogical approaches. This includes using software for creative computing for example video, animation, sound editing, digital art, data handling and the use of purposeful, cross curricular contexts for developing IT knowledge, understanding and skills. The use of software to support inclusion, including alternative ways of them expressing their understanding in other subjects is also included. Additionally, students` subject knowledge linked to computing systems and networks and how these enable communication and collaboration is developed</p> <p>Before placement we build on the lesson planning from year one and look at how we can develop a sequence of lessons.</p>	<p>Examples of research and evidence</p> <p>Batty, N. and Metcalfe, J.(2022) <i>Safeguarding</i> (Chapter11). In: Cooper, H and Elton-Chalcraft, S. (eds.) Professional Studies in Primary Education, 4th edition. SAGE Publications, London, UK.</p> <p>Bell T., Vahrenhold J. (2018) CS Unplugged—How Is It Used, and Does It Work?. In: Böckenhauer HJ., Komm D., Unger W. (eds) Adventures Between Lower Bounds and Higher Altitudes., vol 11011. Springer, Cham.</p> <p>Morris, D., Uppal, G. and Wells, D. (2017) Teaching computational thinking and coding in primary schools. London: Learning Matters</p> <p>Raspberry Pi The Big Book of Computing Pedagogy Available to download at https://helloworld.raspberrypi.org/issues/0</p> <p>Turvey, K., Potter, J., Burton, J., Allen, J. and Sharp, J. (2016) Primary Computing and Digital Technologies: Knowledge, Understanding and Practice. Seventh Edition. Los Angeles: Learning Matters</p>	<p>Other useful information and links</p> <p>Students audit their own knowledge of computing and set targets to work on based on their individual subject knowledge and experience. The modules support students in developing their subject knowledge but also their understanding of subject specific pedagogical theory.</p> <p>On each placement students will have the opportunity to observe, teach and assess computing, developing their practice over the three phases</p>
Developing 1	<p>To prepare students for placement and to support their observations and involvement in computing activities in school, both the IT and CS strands are visited. Key themes addressed include key concepts, progression in skills, knowledge and understanding in the NC, including any outstanding subject terminology MTP, organisation and management of a sequence of learning and use of and value of physical computing devices such as microbits and crumbles.</p> <p>Before placement we there is also a continued focus on cross curricular learning and thematic planning</p>		
Developing 2			

Module title: 4yr QTS Physical Education Current Validation PEPC4010/ PLCC9591&2

Programme of work

Beginning Phase	<p>In this phase students understand why we teach Physical Education and what we are trying to develop in the children that we teach. Students develop their knowledge surrounding the outcomes of Physical Education through PIES (Physical, intellectual, emotional and Social) and begin to plan simple learning episodes.</p> <p>There is a focus on Physical Literacy and Fundamental Motor skills, whilst developing the early stages of teaching dance and Games.</p> <p>Students will understand the importance of using STEP (Space, task, equipment and people) as a way to adapt teaching and to ensure a safe environment for learning.</p>
Developing Phase	<p>After beginning placement, students continue to develop their knowledge in a range of different physical education activities</p> <p>After developing placement students will understand the difference between competition and collaboration.</p> <p>They develop a range of strategies to incorporate competition in their lessons, without resulting in lack of pupil motivation.</p> <p>They look at a range of ways of engaging all pupils in both physical activity and health and consider SEND in order to develop meaningful activities where all can make progress</p>
Developing 2	<p>After developing placement the students focus on the use of the School Sports premium and how this can be best used to develop CPD opportunities for PE delivery.</p> <p>They are also challenged to look at developing a wider range of activities in order to develop lifelong participation in PE and sport.</p>

Rationale for sequence

This phase provides knowledge and understanding of the key terminology and concepts that students require to make sense of what they are seeing in school. The initial seminar identifies the key differences between Physical Education, Physical literacy and fundamental motor skills.

The overview builds a foundation of knowledge and how this develops over key stage one and two.

It is important that students are motivated to teach Physical Education and appreciate the capacity they have to change opinion. By looking at a range of strategies for the teaching of physical Education, students will develop an inclusive approach to teaching all areas of the physical Education National curriculum.

Examples of key literature utilised

Castle. N., Little.R., Howells. K and Carney. A (2017) Mastering Primary Physical Education. Bloomsbury Academic

Lawrence. J. (2018) Teaching Primary Physical Education (2nd Ed). Sage Publications

Pickard. A and Maude P (2021) Teaching Physical Education Creatively (2nd Ed). Routledge

Rose. J (2017) Bloomsbury curriculum basics: Teaching Primary PE: everything you need to teach Primary PE. A and C Black

Vickerman P., Maher A. (2019) Teaching Physical Education to children with special educational needs and disabilities (2nd Ed). London: Routledge Williams,

Core Content Framework links

High Expectations – Teacher expectations (3) Impact of high quality teaching of Physical Education(6)

How Pupils Learn— students learn that the way they structure and support learning in physical education draws directly from theories around working memory, developing learnt responses around gross and fine motor skills.

Subject and Curriculum– students are regularly checking their own subject knowledge. Teacher subject knowledge is crucial (2-5,7,8, 9,10)

Classroom practice – students learn to plan effective opportunities (all statements)

Adaptive Teaching - Utilising the STEP principle to adapt all activities, how to respond to the needs of all (1-4,5,6)

Assessment – using different kinds of assessment, understand prior learning to support next steps. (1,2,4-6)

Other useful information

The Physical education sessions build on subject knowledge over time, re enforcing key concepts through a range of different curriculum areas.

The module works through the curriculum areas of Physical Education in a practical way. Participation allows for a greater understanding of how the individual skills are developed and gives the student the opportunity to break down the skills effectively in order to teach.

On each placement students will hopefully observe, teach and assess physical education, developing their practice over the three phases.

History			
Developing	<p>Introduction to the National Curriculum & EYFS Key concepts in History – Chronology, Knowledge and Understanding, ‘Being an Historian’, Historical Enquiry and Interpretation Using Primary Sources: Visual Images, objects, Documents, Local History, Archaeological evidence- including examples of activities for EYFS. Introducing second-order concepts – e.g. significance – people – Dawson/Counsell’s definitions Developing Tier 3 Vocabulary – discussion and debate, stories and storytelling, role play and drama. Progression – practical examples e.g. Remembrance Day – ordering the activities for a whole school event, consideration of language development Long term planning for history, choosing the suitable units, threads and pathways for second -order concepts Inclusion and SEND in History – Quality first teaching, what does progress look like, adaptations</p>	<p>Rationale for sequencing</p> <p>The students need to understand the basics of history and how to teach engaging lessons, what primary source evidence is and how to use it with children in Yr 1. In Yr 2 we move on to explore secondary sources, second-order concepts, and considerations such as diversity, equality and SEND. These link in to our LLTR (Education Studies modules) and the Staged expectations for our placements. In the Yr 3 Module we examine assessment in history and how history can be used as a basis for good cross curricular teaching. We firmly believe the students need to understand what history as a discipline is before combining it with other subjects or the essential nature of history can be lost.</p>	<p>Links to CCF</p> <p>How Pupils Learn (Standard 2 – ‘Promote good progress’): 1, 2, 6, 7, 8, 9</p> <p>Subject and Curriculum (Standard 3 – ‘Demonstrate good subject and curriculum knowledge’): 1-10</p> <p>Classroom Practice (Standard 4 – ‘Plan and teach well-structured lessons’): 1-8</p> <p>Adaptive Teaching (Standard 5 – ‘Adapt teaching’): 1-5, 7</p> <p>Assessment (Standard 6 – ‘Make accurate and productive use of assessment’): 1-7</p>
		<p>Examples of research and evidence</p> <p>Cooper, H. (2014) Writing History 7-11. Historical Writing in different genres. London and New York. David Fulton.</p> <p>Dixon, L. and Hales, A. (2014) Bringing History Alive through Local People and Places London: Routledge</p> <p>Doull, K. Russell, C. and Hales, A. (2019) Mastering Primary History London: Bloomsbury</p> <p>Moore, H. (2017) Using Artefacts and Sources Creatively, in H. Cooper (ed.) Teaching History Creatively, 2nd edition. London: Routledge, pp. 1-87.</p> <p>Temple, S. (2017) Using Archives Creatively. pp 87-104. Cooper, H. (ed) Teaching History Creatively. London. Routledge.</p> <p>Turner-Bisset, R. (2012) Creative Teaching- History in the Primary School 2nd Edition Abingdon: David Fulton – although it’s now dated this is a good basic introduction to teaching history</p> <p>Quigley, A. (2018) Closing the [Vocabulary] gap Abingdon: Routledge</p>	<p>Other useful information and links</p> <p>A site visit may be included to a local museum or historical site.</p> <p>Useful web sites: www.history.org.uk/ www.nationalarchives.gov.uk/education https://historicensland.org.uk/images-books/archive http://www.cumbriaimagebank.org.uk/</p>

Programme of work	
B Stage	In this stage there are no formal 'geography' sessions, however students will be learning a wide variety of concepts relating to their developing sense of their knowledge and understanding of 'teaching', including such aspects as: planning effective lessons, assessing children's learning, managing children's behaviour, managing an effective classroom and catering for different learner's needs, as well as being introduced to a variety of pedagogical approaches to learning. On placements students are encouraged to observe, investigate and discuss different subjects and how they are taught, whilst they may have the opportunity to teach and reflect upon their own teaching of some geography, all of which can be built upon in their developing phase sessions on the subject itself.
D Stage	<p>In this phase students encounter their specific 'geography' content. Students are introduced to the subject of 'geography' through an academic and practical school-based lens, they reflect on their own learning and experiences, learn the subject's nature and needs (that geography is the study of everything on the planet, the need to widen children's experiences, the study of people and places, the need for geography to be taught well in schools, the development of knowledge and understanding and interest about the world at a variety of scales, the relevance to people's lives, the promotion of positive attitudes and values) the 7 key concepts (place, space, diversity, interdependence, changing physical and human features, environmental interaction and scale) and Catling's 10 threads of geographical learning (me in the world, neighbourhood and community, connecting to the wider world, other people, other place and me, seeing and representing the world, encountering issues, seeing change and effect, caring for the world, heading into the future and the world today).</p> <p>Students learn and experience examples of geographical skills (developing vocabulary, using and making maps, fieldwork, communicating ideas, use of ICT, thinking and problem-solving skills, interpersonal skills and using a variety of secondary sources), they are introduced to the National Curriculum and learn what notions of good practice in primary geography are. Students are introduced to the wide learning potential of the subject and will learn the importance of connecting good teaching, with a sequence of key enquiry questions, geographical skills and the NC requirements. Students conduct an audit of current confidence in primary geography, are made aware of the essential importance of teacher subject knowledge for planning quality geography.</p> <p>Students will be introduced to key components of how to plan good geography lessons and will be introduced to ways in which geography might be assessed through formative processes and a variety of summative means. Students are introduced to a wide variety of learning sources and that can be used to support children's learning (written sources, stories, photographs, maps, artefacts etc) and are introduced to the importance of fieldwork and successful fieldwork practice (including use of risk assessment, exemplar planning example, fieldwork within a sequence of learning and a variety of fieldwork techniques for use with children (recording techniques, observation, interpersonal skills, thinking and problem solving, engaging the senses, use of ICT and development of language) and that learning may be adapted for different children's learning needs.</p> <p>Students will recap the learning above and will further their understanding of how adaptive teaching and seeking wider opportunities, including the use of extended learning, fieldwork, connecting to other schools, CPD, drawing on their own experiences and connecting to family and community. Students will be introduced to the requirements for high-quality medium-term planning for geography and will use a planning success criteria to plan a progressive geography learning sequence. Students will also explore the use of distant places as a way of developing knowledge and understanding, developing geographical skills and ways to challenge stereotypes, misconceptions and prejudice. Students will learn the 7 key place questions: where is this place, what is this place like, why is this place like it is, how is this place changing, what is it like to live in this place, how this place is connected to other places and how this place is similar and different to my place. At this point students will also consider the learning value of 'current issues' at a local, regional, national and world scale. Students will be introduced to a wide variety of examples and pedagogical approaches that can be adopted to expand children's knowledge and understanding (role play, exploring scenarios, De Bono's Thinking Hats, The Mantle of the Expert etc), their use of fieldwork and problem solving and discussion and a wider appreciation of ways in which secondary sources (photographs, news items, video, maps, real people, story etc) can be best used to support learning enquiries and how a wide variety of ways to communicate children's learning can be used to report and assess achievement.</p> <p>Students will deepen their knowledge and understanding of how geography can be used as a catalyst for exploring the potential high-quality cross-curricular linking and will have the opportunity to recap and expand their knowledge of effective geographical planning and potential (linked to their topic-themed assignment) with tutor support regarding planning requirements, resource use, pedagogical approaches, assessment techniques, catering for needs and relevant and meaningful 'sticky' learning. All of the above (including the module assessment) combined with additional general course pedagogical learning and the continued consideration of adaptive learning strategies and the encouragement to identify their own individual learning needs, will (with further subject tutor support if required) help ensure students are ready to plan, teach, assess and reflect upon their teaching of the subject whilst on extending placement in the E stage of their course.</p>

Module title: Geography content of HUMC6010	
Rationale	<p>The developing phase programme offers a rich introduction to primary geography by providing knowledge and understanding of the nature of the subject, of key geographical concepts and learning expectations (including notions of high-quality geography and the requirement to adapt teaching where necessary) and focusses on informing and enthusing student teachers. Further sessions in this phase focus on what to include when planning effective geography (including fieldwork) and an introduction to subject skills. This phase aims to move from informing and enthusing to empowering students to be able to plan, teach and assess geography confidently on placement. Final sessions aim to continue to inform, enthuse and empower by enriching student appreciation of the potential of geography in schools and how it may be most effectively taught. Upon completion of the course students should feel ready to apply concepts of high-quality <i>teaching</i> to notions of high-quality <i>geography</i> and feel confident to be able to independently plan, resource, teach, assess and critically reflect on the teaching of geography on their E placement and beyond. Students will critically reflect on their own experiences as learners, will examine the wide power and potential of the subject and will consider their role in the future success of geography in schools - students are given the tools and ways of thinking for this quality 'geography journey' to begin.</p> <p>The assessment task (academic rationale, topic mind-map and plan, plus resource pack) aims to offer the opportunity to apply course learning to create a high-quality geography experience for children...ready for final placement and beyond.</p>
Core Content Framework links	<p><u>High Expectations</u> – Teachers are key role models, who can influence the attitudes, values and behaviours of their pupils. (2) Teacher expectations (3) Impact of high-quality teaching (6)</p> <p><u>How Pupils Learn</u>— students learn that the way they structure and support learning in geography draws directly from theories around working memory, activating prior knowledge etc. (all statements)</p> <p><u>Subject and Curriculum</u>— students are regularly checking their own subject knowledge. Teacher subject knowledge is crucial (1-7)</p> <p><u>Classroom practice</u> – students learn to plan effective opportunities (1,2,6,7,11)</p> <p><u>Adaptive Teaching</u> - the importance of inclusive and adaptable geography that cater for the needs of all (1-3)</p> <p><u>Assessment</u> – using different kinds of assessment, understand prior learning to support next steps. (1,2,4-6)</p> <p><u>Managing Behaviour</u> – all children have the opportunity to experience success (4)</p> <p><u>Professional Behaviours</u> – (2,4,& 7) Wider contribution, working with parents etc</p>
Other useful information	<p>In each phase students are encouraged to critically reflect upon their school-based experiences of geography thus far, to revisit their geography audit to seek ways to focus further development of knowledge, skill and understanding and to be thinking ahead to further familiarize themselves with the expectations for placement key stages and how high-quality geography links to concepts of high-quality teaching as explored in core and master's modules. Students are encouraged on placements to watch and teach geography and to discuss geography provision with school-based colleagues, including geography leader. Throughout B, D and E phase students are encouraged to access geography support materials and to seek support from tutors, if necessary, whilst also being encouraged to seek the opportunity to teach geography and to try (with support) to plan, lead and reflect upon a fieldtrip (or outdoor learning) experience.</p>
Examples of key literature utilised	<ul style="list-style-type: none"> - Barlow, A and Whitehouse, S. (2019) <i>Mastering Primary Geography</i>. London: Bloomsbury Academic - Catling, S and Willy, T. (2010) <i>Teaching Primary Geography: Learning Matters</i> - Catling, S and Willy, T (2018) <i>Understanding and Teaching Primary Geography</i>: London: Sage - Cooper, H {Ed} (2006). <i>Geography 3-11 A Guide for Teachers</i>. London: Fulton - Pike, S (2015) <i>Learning Primary Geography</i>. London: Routledge - Rowley, C and Cooper, H (2009). <i>Cross-curricular Approaches to Teaching and Learning</i>. London: Sage - Scoffham, S (2013) <i>Teaching Geography Creatively</i>: Routledge. London - Scoffham, S (2010) <i>The Primary Geography Handbook</i>. Geographical Association

Q4 Foreign Languages PLCC 9591/2 Modules

Programme of work

Developing 1 phase

Languages in primary education/ **Context:**
 Familiarisation with documents (KS2 framework for languages, Language programme of Study KS2 /programmes of work).
 Completion of a subject audit: identification of strengths and areas for development.
 Introduction to the strands (Oracy /Literacy/ Intercultural Understanding).
 Students are shown how to embed IU in a KS2 Language topic: à l'école :
 Comparison of French school day and English school day; use of authentic material to introduce and practise vocab (video, French timetables for primary school children, bilingual stories, displays etc.).
 Students introduced to ideas for activities that could be created to develop IU on several topics or that can be embedded in the FL classroom such as celebrations/ events/ greetings/ food/etc.

Developing 2 Phase

To understand the **planning process:** to plan and teach well-structured lessons which enable pupils to make progress in Modern Languages.
Learning Plan:
 Tutor models a lesson on 'clothes' using a variety of pedagogical approaches and resources to introduce, consolidate and practise vocabulary and structures. Students are introduced to the different building blocks of language progression: phonics/vocabulary/grammar using activities that develop listening, speaking, reading and writing skills. Approaches to cross-curricular opportunities and how to make MFL inclusive to all learners are a considered (supported with reading).
 Analysis of the content of 2 French lesson plans: opportunity to discuss and give feedback on the structure, cross-curricular links and inclusive approaches of each LP.

Rationale for sequence

The **beginning** phase helps the students to remove preconceptions about language teaching and learning and gain confidence in teaching FL using 'Raising Intercultural Understanding awareness' in the Language classroom as a focus. Students are made aware of motivational factors such as:

- pupils' perception of the usefulness of the language and involvement in intercultural activities and exchanges
- discovering more about other cultures and peoples, the context in which the language is rooted (Ofsted, 2021), are also relevant to language teaching and learning.

In the **developing** phase, students are introduced to the planning process, with a focus on structuring language learning.
 Tutor models a language lesson, deconstructing learning and demonstrating activities/practical ideas, and strategies that underpin effective language teaching. Opportunities for cross-curricular approaches are discussed.
 In the **extending** phase it is the responsibility of students to autonomously increase their subject knowledge.

Examples of key literature utilised

British Council (No date) , Primary Language Starter Pack
 Connor, J. (2017) Addressing needs and disability in the curriculum Modern Foreign Languages, London, Routledge.
 Ellis, P. & Harris, L . (2018) Approaches to Learning and Teaching MFL: a toolkit for international teachers. Cambridge university press.
 Jones, J. & Coffey, S. (2012) Modern Foreign Languages from 5 to 11 London: David Fulton : Chapter 8-9
 Kirsh, C.(2008) Teaching Languages in the Primary School . Continuum books, London
 Mitchell, R. & Myles, F. (2019) Learning French in the UK setting: Policy, classroom engagement and attainable learning outcomes. Apples – Journal of Applied Language Studies Vol. 13, 1, 2019, 69–93
 Watts, C., Forder, C., Phillips, H. (2012) Living Languages: an integrated approach of teaching Foreign Languages in Primary Schools. London, Routledge.

Core Content Framework links

High Expectations –How Pupils Learn— Students learn how to structure and support learning in Languages, drawing from theories on cognitive load theory and working memory.
Subject and Curriculum—Teacher subject knowledge is crucial . Using modelling, explanations and scaffolds, acknowledging that novices need more structure early in a domain/Providing sufficient opportunity for pupils to consolidate and practise applying new knowledge and skills.
Classroom practice –Modelling helps pupils understand new processes and ideas; good models make abstract ideas concrete and accessible.
Adaptive Teaching _ Adapting teaching in a responsive way, including by providing targeted support to pupils who are struggling, is likely to increase pupil success. Conversely, EAL students' linguistic skills may be harnessed to develop their ability to compare structures across many languages.
Assessment _ Students analyse different types of assessment, and how to assess prior learning to support next steps.

Other useful information

Students complete their own MFL audit and identify areas of development; they are encouraged to set their own targets and put in place an Action Plan.

Subject/module curriculum sequence document – Religious Studies			
Beginning	<p>- Students are taught about the unique place and nature of RE in the primary curriculum and the legal requirements for RE and Collective Worship.</p> <p>- Students are invited to consider their own attitudes to religions and Religious Education and the baggage they bring to the subject.</p> <p>- Through interactive modelled snippets of engaging RE lessons students reflect on key features of effective RE and different types of knowledge in RE (Ofsted2021).</p> <p>- Students are introduced to different types of concepts in RE. They are shown how to identify and use concepts to help them plan RE lessons.</p> <p>- Students complete a subject knowledge audit and are given research task to use recommended books and reputable websites, so they understand where to go to develop their own subject knowledge gaps.</p>	<p>Rationale for sequencing</p> <p>The RE is sequenced to help students become confident, enthusiastic and capable teachers of the subject. By starting with the student's own attitudes and barriers in the beginning phase we can work on any misconceptions and support the students to develop an enthusiasm for and understanding of the subject and its impact for learners.</p> <p>The key features and the theories that underpin effective teaching strategies are modelled and developed with practical ideas linked to school placements. Opportunities for cross curricular approaches as well as discrete RE are discussed in the developing phase.</p> <p>In the extending phase the responsibility moves to the student to autonomously increase their substantive subject knowledge; their understanding about 'ways of knowing' and their personal knowledge.</p>	<p>Links to CCF</p> <p><u>High Expectations</u> – Teacher expectations Impact of high quality teaching (1-6) <u>How Pupils Learn</u>— students learn about effective RE pedagogy and how to combat religious stereotypes. (all statements) <u>Subject and Curriculum</u>– students are regularly checking their own substantive subject knowledge. (2-5,7,8,) <u>Classroom practice</u> – students learn how to plan effective RE lessons (all statements) <u>Adaptive Teaching</u> - teaching whole class RE, how to respond to the needs of all (1-4,5,6) <u>Assessment</u> – using different kinds of assessment in RE, understand prior learning to support next steps. (1,2,4-6) <u>Professional Behaviours</u> – Teachers need to model respect for religions and worldviews.</p>
	<p>Following the beginning placement, students are taught about unique aspects of planning and assessment in RE to build on their generic input on this in their course and on placement.</p> <p>Students look at key concepts; how to plan for progression and cross-curricular opportunities with RE. They are encouraged to represent religions as diverse and global. They consider how to make RE inclusive to all learners.</p> <p>Students are given further research tasks to build up their substantive subject knowledge. They consider the role of visits and visitors to enrich RE teaching.</p>	<p>Examples of research and evidence</p> <ul style="list-style-type: none"> • Clarke, C. and Woodhead, L. (2018) A new settlement Revised :Religion and Belief in school available at http://faithdebates.org.uk/wp-content/uploads/2018/07/Clarke-Woodhead-A-New-Settlement-Revised.pdf • Elton-Chalcraft, S. ed (2015) <i>Teaching RE Creatively</i> London: Routledge (2nd edition due 2023) • James, M & Stern, J (2019) <i>Mastering Primary Religious Education</i>. London: Bloomsbury • Ofsted (2021) Research Review Series: Religious Education. London: Ofsted. • Webster, M. (2010) <i>Creative Approaches to Teaching Primary RE</i>. Harlow:Pearson. 	<p>Other useful information and links</p> <p>Students audit their own knowledge of Religions and Belief systems and are encouraged to set personal targets to develop their own knowledge.</p> <p>The RE input in the CURC modules supports students in understanding disciplinary knowledge (Ofsted 2021) in RE, but also develops snippets of their substantive knowledge.</p> <p>On each placement it is hoped that students will have opportunities to observe, teach and assess RE, developing their practice over the three phases. The tutor will be available throughout their course for individual support and advice.</p>
Extending	<p>There is no direct input on RE in the extending phase. However the CURC 6201 module currently will give students the opportunity to work on their own targets and developing their substantive subject knowledge for RE may be one of their targets.</p>		

Subject/module curriculum sequence document – Religious Education element			
Beginning	<p>- Students are taught about the unique place and nature of RE in the primary curriculum and the legal requirements for RE and Collective Worship.</p> <p>- Students are invited to consider their own attitudes to religions and Religious Education and the baggage they bring to the subject.</p> <p>- Through interactive modelled snippets of engaging RE lessons students reflect on key features of effective RE and different types of knowledge in RE (Ofsted2021).</p> <p>- Students are introduced to different types of concepts in RE. They are shown how to identify and use concepts to help them plan RE lessons.</p> <p>- Students complete a subject knowledge audit and are given research task to use recommended books and reputable websites, so they understand where to go to develop their own subject knowledge gaps.</p>	<p>Rationale for sequencing</p> <p>The RE is sequenced to help students become confident, enthusiastic and capable teachers of the subject. By starting with the student's own attitudes and barriers in the beginning phase we can work on any misconceptions and support the students to develop an enthusiasm for and understanding of the subject and its impact for learners. The key features and the theories that underpin effective teaching strategies are modelled and developed with practical ideas linked to school placements. Opportunities for cross curricular approaches as well as discrete RE are discussed in the developing phase.</p> <p>In the extending phase the responsibility moves to the student to autonomously increase their substantive subject knowledge; their understanding about 'ways of knowing' and their personal knowledge.</p>	<p>Links to CCF</p> <p><u>High Expectations</u> – Teacher expectations Impact of high quality teaching (1-6) <u>How Pupils Learn</u>— students learn about effective RE pedagogy and how to combat religious stereotypes. (all statements) <u>Subject and Curriculum</u>– students are regularly checking their own substantive subject knowledge. (2-5,7,8,) <u>Classroom practice</u> – students learn how to plan effective RE lessons (all statements) <u>Adaptive Teaching</u> - teaching whole class RE, how to respond to the needs of all (1-4,5,6) <u>Assessment</u> – using different kinds of assessment in RE, understand prior learning to support next steps. (1,2,4-6) <u>Professional Behaviours</u> – Teachers need to model respect for religions and worldviews.</p>
	<p>Following the beginning placement, students are taught about unique aspects of planning and assessment in RE to build on their generic input on this in their course and on placement. Students look at key concepts; how to plan for progression and cross-curricular opportunities with RE. They are encouraged to represent religions as diverse and global. They consider how to make RE inclusive to all learners.</p> <p>Students are given further research tasks to build up their substantive subject knowledge. They consider the role of visits and visitors to enrich RE teaching.</p>	<p>Examples of research and evidence</p> <ul style="list-style-type: none"> • Clarke, C. and Woodhead, L. (2018) A new settlement Revised :Religion and Belief in school available at http://faithdebates.org.uk/wp-content/uploads/2018/07/Clarke-Woodhead-A-New-Settlement-Revised.pdf • Elton-Chalcraft, S. ed (2015) <i>Teaching RE Creatively</i> London: Routledge (2nd edition due 2023) • James, M & Stern, J (2019) <i>Mastering Primary Religious Education</i>. London: Bloomsbury • Ofsted (2021) Research Review Series: Religious Education. London: Ofsted. • Webster, M. (2010) <i>Creative Approaches to Teaching Primary RE</i>. Harlow:Pearson. 	<p>Other useful information and links</p> <p>Students audit their own knowledge of Religions and Belief systems and are encouraged to set personal targets to develop their own knowledge. The RE input in the CURC modules supports students in understanding disciplinary knowledge (Ofsted 2021) in RE, but also develops snippets of their substantive knowledge.</p> <p>On each placement it is hoped that students will have opportunities to observe, teach and assess RE, developing their practice over the three phases. The tutor will be available throughout their course for individual support and advice.</p>
Developing			
Extending			

Curriculum focus: Music PLCC9592

Essential knowledge

Developing Phase	<p>Trainees will engage with the National Curriculum requirements for music through the lens of the DfE 2021 Model Music Curriculum. They will understand that the four strands are: singing, listening, composing and musicianship.</p> <p>Trainees will learn the progression of learning in each strand from Year 1- Year 6.</p> <p>In singing, trainees will learn how to teach progression in singing; vocal warm-ups, vocal soundscapes, chants simple songs and rounds. Trainees will understand how the pentatonic scale is used to develop simple harmony and move onto understanding triads..</p> <p>They learn and apply key vocabulary: dynamics, forte, piano. Trainees use simple chants to understand key concepts of pulse, ostinato, and layering and use this knowledge to apply to developing planning a lesson</p> <p>Following this, trainees apply their knowledge of vocabulary to 'listening'. They develop their questioning skills to draw out musical concepts from a piece of music and learn how to respond to the music through graphic visualisation. Trainees learn that composition follows on from listening and learn how to use tuned and untuned percussion to develop compositions, playing with accuracy, fluency, control and expression. Trainees learn basic staff notation and how to use symbolic and staff notation to communicate their compositions. Trainees then apply their understanding to planning for progression of learning in Music. They learn how to adapt published planning for the needs of a range of learners and understand the importance of a systematic, scaffolded progression of skills, knowledge and understanding in music.</p>

Rationale for sequence

· Learning is planned to begin with an overview of the National Curriculum and Model Music Curriculum 2021. This provides the rationale for exploring the subject through the strands of singing, listening, composing and musicianship. Singing is taught first and is given more time as this provides a good context for setting a foundation for understanding musical vocabulary and concepts that can then be applied to the other three strands. Following this listening is taught as a set of skills that provide a scaffold for composing which in turn scaffolds musicianship.

Students apply their growing understanding planning learning through teaching singing and then the other three strands provide a vehicle for planning for progression of learning in music through half termly plan.

Examples of key literature utilised

Research Review series – Music. Available at:
<https://www.gov.uk/government/publications/research-review-series-music>

Burak, S. (2019). Self-efficacy of pre-school and primary school pre-service teachers in musical ability and music teaching. *International Journal of Music Education*. 37. (2). <https://doi.org/10.1177%2F0255761419833083>

Burnard, P and Murphy, R. (2013). *Teaching Music Creatively*. London. Routledge.

Daubney, A. (2017). *Teaching Primary Music*. London. Sage.

Core Content Framework links

High Expectations – Teacher expectations (3) Impact of high quality teaching (6)
How Pupils Learn— students learn that the way they structure and support learning in Music draws directly from theories around working memory, activating prior knowledge etc. (all statements)
Subject and Curriculum– students are regularly checking their own subject knowledge. Teacher subject knowledge is crucial (2-5,7,8, 9,10)
Classroom practice – students learn to plan effective opportunities (all statements)
Adaptive Teaching - sensory needs of learners, how to respond to the needs of all (1-4,5,6)
Assessment – using different kinds of assessment, understand prior learning to support next steps. (1,2,4-6)
Behaviour Management – clear instruction, routine, least intrusive interventions, checking understanding (1,2,5)

Other useful information

Trainees develop their understanding of primary Music through school-based learning. They consider and reflect upon the music teaching they have engaged with in school and compare with the music learning and teaching in centre-based training. They triangulate their learning through exploring further reading, materials such as WHAT SHOULD AN EXCELLENT PRIMARY MUSIC SESSION LOOK LIKE?
[HTTPS://MUSICEDUCATIONSOLUTIONS.CO.UK/WHAT-DOES-AN-EXCELLENT-PRIMARY-MUSIC-LESSON-LOOK-LIKE/](https://musiceducationsolutions.co.uk/what-does-an-excellent-primary-music-lesson-look-like/)

provide a useful tool to explore, discuss and benchmark their developing understanding of primary Music.

Q4 Subject/module curriculum sequence document Art and Design PLCC9592

Developing	<p>Trainees will engage with the National Curriculum requirements for the Art and Design curriculum through the National Curriculum 2013 programmes of study and the NSEAD (National Society of Educators in Art and Design) framework.</p> <p>They will learn the essential strands for all Key Stages are:</p> <ul style="list-style-type: none"> • generate ideas • media • techniques • the visual elements • knowledge and evaluating. <p>Trainees will learn that the processing skills used to develop or create are:</p> <ul style="list-style-type: none"> • invention • analysis • expression • imagination • observation <p>They will that these should be planned and taught alongside technical skills relating to specific media and processes. They will know that high quality art and design education will provide opportunities for children to experiment, invent and create. They will learn that the visual elements are line, shape, form, space, tone, pattern, colour, and texture. Trainees will understand that drawing is a key exploratory tool and know the importance of teaching it across all key stages. Trainees will then explore the technical skills of drawing and painting and apply their understanding of the visual elements. They will understand how they can teach the visual elements through drawing and painting using various techniques to create line and mark making.</p> <p>Trainees will consider their experience of Art and Design in school and relate to their previous learning. A focus of this phase will be the knowledge of artists strand from the NC programme of study. Practical work will revolve around studying works of art and design by notable artists, crafts people, architects, and designers and providing practical activities to explore works of art and craft in the classroom. Focus will be given to the technical skills involved in printing and clay work.</p>	<p>Rationale for sequencing</p> <p>The module starts with a focus on exploring the core strands of the subject across the key stages, so trainees have a clear understanding of national expectations in this subject area. Attention is placed on the importance and value of the Arts and creativity in school and society. Therefore, high-quality learning opportunities are essential for the holistic development of children. The first phase provides knowledge and understanding of the key terminology and concepts that students require to make sense of the Art and Design National Curriculum 2013. Students are introduced to the processing skills which are developed during artistic activities: invention, analysis, expression, imagination, and observation. Trainees will understand that the visual elements of art are shape, form, line, texture, colour, pattern, space, and tone. They will learn technical skills in drawing, painting and colour mixing. Students will be given hands on experience to develop their skills in these specific techniques.</p> <p>Their knowledge of Art and Design curriculum is further developed into their understanding of critical studies and its role and purpose in the classroom. They will use their knowledge the visual elements, drawing and painting and apply it to this strand of the curriculum. Trainees will continue to build their own technical skills in print making and clay work.</p>	<p>Links to CCF</p> <p><u>High Expectations</u> – Teacher expectations Impact of high-quality teaching (1-6) <u>How Pupils Learn</u>— students learn the way to structure and support learning in art and design for pupils to immerse themselves in the subject (2, 6, 7, 9) <u>Subject and Curriculum</u>– Teacher subject knowledge is crucial (2-7) <u>Classroom practice</u> – students learn to plan effective art and design (2-4, 6-9) <u>Adaptive Teaching</u> - understanding of differences and needs with the art and design environment (1, 3, 7) <u>Assessment</u> – addressing the iterative process of assessment in art and design (1, 2, 4, 5)</p>
		<p>Examples of research and evidence</p> <p><u>Arts Council</u>- creativity Barnes, R. (2006) <i>Teaching art to young children 4-9</i>. 2nd edn. Abingdon: Routledge Falmer Gregory, P et al. (2020) <i>Mastering Primary Art and Design</i>. London: Bloomsbury Academic. Hallam, J., Das Gupta, M. and Lee, H. (2011) ‘Shaping children’s artwork in primary classes insights from teacher child interaction during art activities’ in <i>International Journal of Early Years Education</i>, 19 (3-4) pp 193-205. Hearne, S, Cox, S. and Watts, R. (2014) <i>Readings in Primary Art Education</i>. London: Intellect Books. Hope, G. (2008) <i>Thinking and Learning Through Drawing</i>. London: Sage. Key, P. & Stillman, J. (2009) <i>Teaching Primary Art and Design</i>, Exeter: Learning Matters. Ogier, S. (2017) <i>Teaching Primary Art and Design</i>. Learning Matters</p>	<p>Other useful information and links</p> <p>Discussions and exemplars based on students’ own experiences and observations of art and design on school-based placements. Links made to placement curriculum target setting where appropriate.</p>

Q4 Subject/module curriculum sequence document Drama PLCC9592

Developing 2	<p>Trainees will engage with the National Curriculum requirements for drama through the EYFS (Early Years Foundation Stage) 2021 statutory framework and the National Curriculum 2013 English program of study. They will learn about the essential strands for the primary key stages. These are: To appreciate and enjoy a range of different literary devices. To identify with and explore the different characters they encounter through a range of literature. To read and recite aloud with a range of intonation, volume and action. To use role-play and improvisation to develop their writing and test the quality of their ideas. To become more familiar and confident in their use of language and to write for a range of audiences. Preparing play scripts to read aloud and perform. They will learn that reading, re-reading, and rehearsing poems and plays for presentation and performance gives pupils a wonderful opportunity to discuss language, including vocabulary. To understand how performance can foster an appreciation of meaning. To perform their own compositions so that the meaning is clear to others.</p> <p>To understand how drama enables pupils with SEND to think about and consider the motives and perspectives of others. Trainees will consider and reflect on their experience of drama in school. Trainees will be made aware of the barriers to learning and how the planning of activities which give opportunities to experiment, invent and create can overcome these barriers. Alongside this, trainees will be asked to reflect on the role of the teacher in creating high quality drama lessons. Focus will be given to the technical skills and different conventions used in drama. Trainees take part in activities which model the effective use of these strategies in the classroom.</p>	<p>Rationale for sequencing: The teaching has a focus on exploring the core strands of the subject across the key stages. This is so that trainees have a clear understanding of national expectations in this subject area. Attention is placed on the importance of drama in developing pupil confidence and in providing high-quality learning opportunities which are essential for the holistic development of children. The teaching provides knowledge and understanding of the key concepts that students require to make sense of relevant sections of the English National Curriculum 2013. Students are introduced to a range of different techniques for using performance to explore ideas connected with the understanding of character in literacy. This involves thinking about motives and the connection between expression and different abilities and experiences. They are then introduced to a range of simple techniques for exploring characters they have begun to create through performance.</p> <p>Students are then introduced to the idea of performing and reading scripts – in particular, poetry and narrative that they have chosen or written for themselves. They are taught about using rehearsal, tone and voice and different actions in order to read those scripts in front of others. They are also taught to think about the audience and how they may engage them with the performance.</p>	<p>Links to CCF: <u>High Expectations</u> – Teacher expectations Impact of high-quality teaching (1-6) <u>How Pupils Learn</u>— students learn the way to structure and support learning in drama for pupils to immerse themselves in the subject (2, 6, 7, 9) <u>Subject and Curriculum</u>– Teacher subject knowledge is crucial (2-7) <u>Classroom practice</u> – students learn to plan effective drama (2-4, 6-9) <u>Adaptive Teaching</u> - understanding of differences and needs that may be addressed through drama (1, 3, 7) <u>Assessment</u> – addressing the iterative process of assessment in drama. Also understand how drama is linked to assessment in English. (1, 2, 4, 5)</p>
		<p>Examples of research and evidence</p> <p>Woolard B.G. (2009) <i>Teaching Primary Drama</i>, Routledge, London. Farmer, D. (2011) <i>Learning Through Drama in the Primary Years</i> London: Winston, J and Tandy, M. (2001) <i>Beginning Drama 4 - 11</i> David Fulton London: Bloomfield. A. (2000) <i>Teaching Integrated Arts in the Primary School: Dance, Drama, Music, and the Visual Arts</i>. Fulton. London Carlton, J.P. (2012) <i>Story Drama in the Special Needs Classroom Step-by-Step Lesson Plans for Teaching Through Dramatic Play</i>. Jessica Kingsley. Chalmers, D. (2015) <i>A practical guide to teaching drama to children in the Early Years Foundation Stage</i>. Routledge Bailey, S. (2021) <i>Drama for the Inclusive Classroom: Activities to Support Curriculum and Social-Emotional Learning</i>. Routledge, An Eye On Education Book.</p>	<p>Other information: Discussions and exemplars will be based on students' own experiences and observations of drama on school-based placements. Links made to placement curriculum target setting where appropriate.</p>

Design Technology Curriculum and Sequence Document

Programme of work

Developing Phase

Learn that: Introduction to the Design process to follow.

Topic area :Textiles **Make activity** -Design and manufacture focus Textiles–Puppets, Bags , slippers

- The 8 step process of DT, involving disciplinary skills and knowledge, should underpin planning;
- skills from the DT toolkit are used by designers and manufacturers.
- We can progress children’s skills through careful planning in a scaffolded, structured way.

Learn how to:

- Recognise the process and tools of Design and manufacture (disciplinary understanding) which can help children learn scientific concepts (Substantive knowledge)
- Generate DT activities to support learning and awareness of specific branches of Design and Technology namely the areas of design, materials, structures, mechanisms, electrical control and nutrition.
- Apply skills, knowledge and understanding from the National Curriculum into practice. Plan a series of lessons that follow the process below:

CONTEXT ; INVESTIGATE and EVALUATE- Look at products that currently meet that NEED and reflect on how they might be improved ; NEEDS ANALYSIS (criteria/specification); GENERATING IDEAS– sketch and reflect on how and why these ideas may be suitable.; FOCUSED PRACTICAL TASKS; DESIGN AND MAKE ACTIVITY– Chose materials and processes, consider H&S then make prototypes / development products for testing.; ASSESS AND OPTIMISE- How do you determine fitness for purpose? Test and make improvements. PRESENTATION

Topic area: Moving Mechanisms **Make activity:** Pop-up books and cards

Assessment and Adaptive Planning :

- The subject is particularly suited to cross curricular and or thematic approaches because conceptual thinking skills alone have limited value without a substantive understanding of the process, knowledge of materials or functionality and referencing of appropriate scientific and mathematical principles.
- Craft activities and DT are **NOT** the same thing.
- **Assessment** of pupils’ Conceptual Thinking skills informs teachers’ planning for classes, groups and individuals (**Adaptive planning**) – doing the right thing, at the right time, in the right way.
- Misconceptions form barriers to learning. Our teachers training emphasises the importance of substantial subject knowledge to eliminate these.
- DT should develop the concept of the definition of quality as a product that is **“FIT FOR PURPOSE’**. For example Products must meet an aesthetic and/or a functional need whilst being durable enough for a required life before failure.

•Using the design method creatively.

•**Topic area:** Cooking and nutrition

•**Make activity:** Baking activity with a cross curricular theme

- The national curriculum requirements in relation to food, diet and cooking techniques
- The principles of nutrition and healthy eating how they link to science.
- To cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.

At developing phase the sessions delve deeper into the importance of ‘quality’ and students learn that products need to be ‘fit for purpose’ both functionally and aesthetically.

Using the design method cont...

Review of the Design process.

Research and Design

Topic area :Moving Vehicles **Make activity** -Design and manufacture a wheeled vehicle

- The design method (from Beginning phase)
- Wheeled vehicles
- Introduce orthographic projection as means of representing three-dimensional objects in two dimensions.
- links to science ie friction and mathematics ie geometry and accurate measurement.

Teamwork and Using the Design process to follow. Research and Design

Topic area :Moving Vehicles **Make activity** – manufacture test and optimise a wheeled vehicle

- The design process brings together science, Mathematics visualisation skills and uses these when problem solving.
- The need for attention to detail and how prototyping can help make the decision making process more useful and effective.
- Understand and use mechanical systems in their products [for example, gears, pulleys, cams, axles, levers and linkages]
- Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]

Topic area : Static Structures and Environmental recycling **Main Make activity** – Using a defined amount of paper and thin card design a tall tower to take a load of 750 g.

- the methodical investigation of the stability, strength and rigidity of a structures.
- The basic objective in structural analysis and design is to produce a structure capable of resisting all applied loads without failure during its intended life
- To know how struts fail and learn how struts can be strengthened. Struts are made from paper.
- Understand how triangulation can strengthen a structure
- Vocabulary such as Tensile and Compression will be examined as will the properties of common materials in terms of plastic and elastic deformation in metals for example.

Rationale for sequence

Develop student's knowledge of the requirements for Design Technology and the specific subject and pedagogical knowledge required to teach the subject effectively. Students will recognise the complimentary relationship between the domains of behaviour management, pedagogy, curriculum, assessment and professional behaviours in relation to Design Technology.

Examples of key literature utilised

Richardson, R.; (1996),

Planning primary

design & technology; London:John Murray

Ball, D. L., Thames, M. H., & Phelps, G.

(2008) Content knowledge for teachers: What makes it special?

Journal of Teacher Education, 2008 59:

389 DOI: 10.1177/0022487108324554

[Online] Accessible from:

<https://www.math.ksu.edu/~bennett/onlinehw/qcenter/ballmkt.pdf>.

Core Content Framework links

High Expectations – Teacher expectations (3)

Impact of high quality teaching of the process of design and technology (6)

How Pupils Learn— students learn that the design process followed underpins learning in DT. It

draws directly from theories around working memory to apply understanding of other subjects (

particularly science and maths) and the developing of hand skills using a range of tools.

Subject and Curriculum— students are regularly checking their own subject knowledge alongside

developing an awareness of how technology has progressed and is likely to develop in the future.

Teacher subject knowledge is crucial (2-5,7,8, 9,10)

Classroom practice – students learn to plan effective sequences' of learning opportunities that lead to a defined outcome (all statements)

Adaptive Teaching - Learn how to model and scaffold the learning of skills utilising the DT

process to develop creativity, and problem solving through teamwork. How to respond to the needs of all (1-4,5,6)

Assessment –using different kinds of assessment, understand prior

learning to support next steps to converge on an understanding of Quality as being 'Fit for Purpose' (1,2,4-6)

Other useful information

Successful learning in DT SC's look like:

Enabling -I CAN the working out how things work and why they are fit for purpose

Capability and skills I CAN draw and model and communicate thoughts and ideas to others

Confidence -I CAN articulate opinions on what I like and dislike and state why.

Recognition- I CAN pick the appropriate tools, techniques and processes

Safety Awareness- I CAN work safely

Understanding -I CAN explain how the world around me works and predict change in the future

Knowledge- I CAN pick materials based on their properties.

Teamworking --I CAN work with others to meet time objectives

Commitment- I can show commitment to a challenge and achieve the objective.

Subject/module curriculum sequence document Safeguarding This runs through the Programme management sessions linked to placement preparation			
Beginning	<p>An introduction to safeguarding. Prior to Beginning placement 1 students consider what 'safeguarding' is and are introduced to key legislation and types of abuse. They are instructed on their role when in school as a trainee teacher.</p> <p>Students' knowledge and understanding is further developed prior to Beginning placement 2. Previous learning is recapped and developed, including confidentiality and information sharing. Online safety is introduced and the impact of cyberbullying.</p> <p>Students are required to complete level 1 Safeguarding training (provided online by local authorities) and Prevent training.</p>	<p>Rationale for sequencing</p> <p>Due to the sensitive nature of 'safeguarding', it is introduced at key points in students' course and carefully developed throughout their studies.</p>	<p>Links to CCF</p> <p>High Expectations – well-being, role models, trust and respect, life chances Subject and Curriculum – build confidence, secure subject knowledge, explicit teaching Classroom practice – questioning, classroom talk, Adaptive teaching – understanding difference, targeted support, additional/adapted support Managing Behaviour – secure environments, resilience Professional behaviours – professional development, reflective practice, relationships</p>
	<p>Students' knowledge and understanding of 'safeguarding' is reviewed and then further developed. School policies relating to 'safeguarding' are considered and trainee teacher responsibilities are addressed. Students explore children as individuals and as part of a family and class. Online safety is further developed with a specific focus on children with SEND; students are also encouraged to consider their own online presence and how to protect themselves.</p> <p>Students receive Child Exploitation and On-line Protection (CEOP) training to enhance their knowledge and understanding of safeguarding, child protection and online safety. Once completed the students can access the ThinkUKnow resources to use in their own teaching.</p>	<p>Examples of research and evidence</p> <p>Keeping Children Safe in Education (DfE, 2021) https://www.gov.uk/government/publications/keeping-children-safe-in-education--2</p> <p>What to do if you're worried a child is being abused - Advice for practitioners (DfE, 2015) https://www.gov.uk/government/publications/what-to-do-if-youre-worried-a-child-is-being-abused--2</p> <p>Statutory Framework for the EYFS (DfE, 2021) – Section 3 https://www.gov.uk/government/publications/early-years-foundation-stage-framework--2</p> <p>Cumbria Safeguarding Children Partnership https://www.cumbriasafeguardingchildren.co.uk/</p> <p>United Nations Convention on the Rights of the Child http://www.unicef.org.uk/Documents/Publication-pdfs/UNCRC_summary.pdf</p> <p>NSPCC Information for Teachers https://learning.nspcc.org.uk/safeguarding-child-protection-schools/teaching-resources-lesson-plans</p> <p>The Troubled Families Programme (England) (2020) file:///C:/Users/metca/Downloads/CBP-7585%20(4).pdf</p>	<p>Other useful information and links</p> <p>Students are required to undertake specific tasks prior to placement, such as downloading and reading 'Keeping Children Safe in Education' and printing part 1 to keep in placement folder. These tasks have to be shared with the personal tutor at pre-placement tutorials.</p> <p>Safeguarding sessions are either embedded within PLCC or LLTR modules.</p>
Developing	<p>Students are reminded of their responsibilities regarding safeguarding during pre-placement lectures.</p> <p>Students are also advised to undertake FGM online training to ensure they are aware of the signs and know what to do and where to get support.</p>		
Extending			

Programme: 4-year Campus Based		Subject: EALC4020 English		Subject team: MC, KP, ME, SS, DZ, PC
Session	Learn that/about – subject knowledge	Learn how to – pedagogical knowledge	Evidence Base	Rationale
1	Lecture – introduction to the module			
2	<p>The importance of oral communication:</p> <p>The importance, function and development of language in children and in relation to education.</p> <p>How oracy is presenting in the Early Years Foundation Stage Curriculum.</p> <p>A range of material to develop oracy in the classroom.</p>	<p>Translate the presentation of oracy in the National Curriculum into more focused teaching.</p> <p>Use a range of activities to develop oracy in the classroom.</p> <p>Adapt our teaching of oracy to meet the needs of children with English as an Additional Language (EAL).</p>	<p>Weisleder A and Fernald A. 'Talking to children matters: Early language experience strengthens processing and builds vocabulary' Psychological Science 2013: volume 24, issue 11, pages 2143-2152</p> <p>Waugh, D. et al (2020) Primary English for Trainee Teachers – chapter 2 'Speaking and Listening: Spoken Language' by Wendy Joliffe</p> <p>Bearne, E., & Reedy, D. (2018) Teaching Primary English Part 1 Spoken Language</p> <p>Medwell, J., et al (2017) Primary English: Teaching Theory and Practice – chapter 4 'speaking and listening: developing talk in the primary classroom'</p> <p>Medwell, J., et al (2017) Primary English: Knowledge and Understanding – chapter 2 'Spoken English and Standard English' and chapter 4 'the acquisition of language'</p>	<p>Spoken language underpins the whole of the English (and wider) curriculum. It is all-pervasive and that is why we are starting there: "A language-rich environment is one in which adults talk with children throughout the day. The more children take part in conversations, the more they will understand once they can read and the more vocabulary and ideas they will have to draw on when they can write... ..Spoken language runs through the national curriculum programmes of study for English and all seven areas of learning and development in the revised Early Years Foundation Stage statutory framework." -The Reading Framework (2021) p.20</p>
3	<p>Philosophy for Children:</p> <p>The origins and aims of P4C.</p> <p>The main principles and practice of P4C.</p>	<p>Create a positive environment where children feel safe and confident to enquire together in P4C.</p>	<p>Cam, P (2006): <i>20 Thinking Tools: Collaborative Inquiry for the Classroom</i>. Camberwell, Victoria: Australian Council for Educational Research Press</p>	<p>We have been learning about Philosophy for Children which is a long-established approach to teaching that helps to develop children's oracy and thinking skills, as well as benefitting their</p>

	<p>The benefits of P4C for children’s learning, in developing their oracy skills.</p>	<p>Use P4C as an approach to help develop high quality oral language and thinking skills.</p> <p>Recognise the sequence of steps in the P4C process and value each of them.</p>	<p>Fisher, R (2009): <i>Creative Dialogue</i>. Abingdon: Routledge Fisher, R (2013): <i>Teaching Thinking (4th Edition)</i>. London: Bloomsbury</p> <p>Gaut, B & Gaut, M (2012): <i>Philosophy for Young Children</i>. Abingdon: Routledge</p> <p>Haynes, J (2002): <i>Children as Philosophers: Learning Through Enquiry and Dialogue in the Primary Classroom</i>. Abingdon: Routledge/Falmer</p> <p>Hymer, B & Sutcliffe, R (20 12): <i>P4C Pocketbook</i>. Alresford: Teachers’ Pocketbooks</p> <p>Lipman, M (1993): <i>Thinking Children and Education</i>. Iowa, USA: Kendall Hunt Publishing Company</p> <p>Prescott, G. (2015) <i>Creative Thinking and Dialogue: P4C and the Community of Enquiry</i> in Elton-Chalcraft, S. (Ed.) <i>Teaching Religious Education Creatively</i>. Abingdon: Routledge.</p> <p>Prescott, G. (2017) <i>Challenging Assumptions and Making Progress</i> in Anderson, B (Ed.) <i>Philosophy for Children: Theory and Praxis in Teacher Education</i>. Abingdon: Routledge.</p>	<p>self-esteem and confidence. Through experiencing the approach as a participant, you will be able to understand more clearly how it works in practice. Although P4C is not part of the curriculum as such, it is a valuable approach to help you deliver the curriculum in a way that engages the children as active rather than passive learners.</p>
<p>4</p>	<p>The Reading Experience: The importance of reading. The nature of reading.</p>	<p>Distinguish and construct different types of reading comprehension questions.</p>	<p>Waugh et al <i>Primary English for Trainee Teachers</i> Ch. 4 Reading</p> <p>Medwell et al <i>Teaching Theory and Practice</i> Ch. 5 <i>Teaching reading at and before KS1</i></p>	<p>The importance of reading and reading comprehension are the key concepts in this module and so this is where semester 2 work starts.</p>

	<p>The complexity of reading comprehension.</p> <p>The different means of developing reading comprehension.</p>		<p>Bearne & Reedy <i>Teaching Primary English</i> Chs. 5 <i>Perspectives on Reading</i>, 6 <i>Reading for pleasure</i>, 8 <i>Comprehension</i></p> <p>Tennent <i>Understanding Reading Comprehension</i> Ch. 1 <i>Locating Reading</i> & 2 <i>Locating Comprehension</i></p> <p>Education Endowment Foundation (2020) <i>Improving Literacy in Key Stage 1: Guidance Report</i>. London: EEF</p> <p>Rose, J. (2006) <i>Independent Review of the Teaching of Early Reading</i>. London:DfES</p> <p>Wyse, D. and Styles, M. (2007) <i>Synthetic phonics and the teaching of reading: the debate surrounding England's 'Rose Report'</i> Literacy, Vol.41 Iss.1 pp. 35-42</p>	<p>The session works from the didactic to discursive and finally applied approach, embodying neo-Vygotsian theory.</p>
<p>5</p>	<p>The Effective Teaching of Reading:</p> <p>How reading comprehension strategies might be taught, focusing on a whole class approach.</p> <p>The importance of reading fluency and its relation to reading comprehension.</p>	<p>Develop a whole class reading session to start a lesson.</p> <p>Consider the selection of an age appropriate book to match both the interests of the class and requirements of the objectives being addressed.</p> <p>Apply the pedagogy of whole class teaching.</p>	<p>Tennent section 2 <i>Practices</i> Chs. 9-11</p> <p>Waugh et al Ch. 4 <i>Reading</i></p> <p>Medwell et al (Teaching Theory and Practice) Ch. 9 <i>Developing Reading comprehension</i></p> <p>Bearne & Reedy – Ch. 5 <i>Perspectives on reading</i></p> <p>EEF Guidance Reports for EY, KS1 and KS2</p>	<p>We are moving from conceptual to pedagogic knowledge in this session.</p> <p>Having established the importance of reading and begun to explore the complexity of reading comprehension, we will explore how it might be taught.</p> <p>This session will give you models on which you can build to develop your own whole class, shared reading session.</p> <p>Your 10 minute group session will, in turn, be further developed</p>

				into your own, individual whole lesson plan.
6	<p>Including all Learners:</p> <p>The nature and extent of inclusion in general and in relation to English.</p> <p>The nature of Speech, Language and Communication needs (SLCN) and how these might be addressed in English. Understand how specific planning and teaching can support EAL children's development.</p> <p>Relate this to your planning for the assessment.</p>	<p>Adapt our English teaching to meet the needs of all learners.</p>	<p>Alexander, R. (2012) <i>Children, their World, their Education. Final Report and Recommendations of the Cambridge Primary Review</i> London & New York: Routledge</p> <p>Conteh, J. (2015) <i>The EAL Teaching Book</i> London: Sage</p> <p>EAL NEXUS Pedagogic principles and teaching resources https://ealresources.bell-foundation.org.uk/teachers/effective-teaching-eal-learners</p> <p>National Association for Language Development In the Curriculum (NALDIC) https://naldic.org.uk/</p> <p>Spencer, V. (2013) 'How do we effectively meet the needs of children with EAL in the classroom?' Available at http://www.consider-ed.org.uk/how-do-we-effectively-meet-the-needs-of-children-with-eal-in-the-classroom/ Accessed March 2017.</p>	<p>With an increasingly secure knowledge of the nature of reading and reading comprehension and associated pedagogy, we can now explore how that pedagogy may be adapted to meet diverse needs.</p>
	<p>Preparation for the mini-teach:</p> <p>What constitutes a quality text.</p>	<p>Select an appropriate text for a reading lesson.</p> <p>How to plan collaboratively for an introductory whole class reading session.</p>		<p>This session build on the previous sessions developing your conceptual and pedagogic knowledge and offers you an opportunity to apply and extend what you have learned in a planning exercise.</p>

		Apply or adapt some of the modelled teaching approaches/strategies.		<p>This exercise is deliberately constructed as a collaborative one following a social constructivist teaching model: you will develop your plan collectively and have your ideas challenged, developed and extended by your peers. This reflects how you might ask your class to work.</p> <p>You will deliver this plan in a future session and be given formative feedback, allowing you to reflect on and modify your work – much as you would do in the classroom.</p>
7	<p>Grammar and Punctuation Set targets to develop areas of our subject knowledge. This is our opportunity to review your punctuation and grammar audit and set subject knowledge targets that will be taken account of as your set targets for and move into your beginning placement.</p>			
8	<p>Teaching and Assessing Reading: The EAEY4001 English assignment. The structure of a UoC lesson plan. The nature of assessment and how it relates to - Our lesson plan for the assessment (formative) The assessment of reading (summative in relation to statutory assessment of reading)</p>	<p>Complete a UoC plan. Integrate formative assessment into planning for English.</p>	<p>Waugh et al Chs. 14 <i>Planning for Delivery & 15 Assessment</i> Medwell et al <i>Teaching Theory and Practice</i> Ch.15 <i>Assessing English</i> Bearne & Reedy. <i>Introduction & Ch. 9 Describing and assessing progress in reading</i></p>	<p>This session will help to build from your collaborative whole class reading session to an individual lesson plan for the assignment.</p> <p>We are now at the stage where you have explored the nature of reading and reading comprehension and been introduced to and explored approaches to teaching this aspect of English.</p>

				<p>Our focus is now on your planning and the role of assessment.</p> <p>Following this session, you will be in a position to address all aspects of your assignment.</p>
9	<p>Reading into writing: Quality writing arises from quality reading</p> <p>The role of texts as models for student writing</p> <p>Modelled, shared supported and independent writing</p> <p>The nature of kennings</p>	<p>Plan and teach writing, based on prior reading in a careful sequence, over time</p> <p>Use a neo-Vygotskian model of scaffolded teaching to approach pupil independence</p> <p>Use success criteria to develop quality writing through self and peer assessment</p>	<p>Glazzard, J. & Palmer, J (2015) Enriching Primary English. Northwich: Critical Teaching</p> <p>Medwell J., Wray, D., Moore, G., Griffiths, V. (2014) Primary English, Knowledge and Understanding, Sage</p> <p>Waugh, Jolliffe & Allott (2017) Primary English for Trainee Teachers. London: Sage</p>	<p>To demonstrate that writing does not occur in isolation and that all lessons are links in a chain: backwards to prior learning and forwards to subsequent learning</p> <p>To develop personal engagement and enthusiasm for writing via the student's participation in the writing process (writing kennings).</p> <p>This session also models the planning process that students are asked to undertake as part of the assessment</p>
10	<p>Planning</p> <p>The planning cycle – planning. Preparation, teaching and evaluation.</p> <p>Planning for reading</p>	<p>Plan activities to support and develop children's ability and skills in reading.</p>		<p>This session will develop your understanding of planning in relation to English, specifically reading.</p> <p>This session will feed into the next session.</p>
11	<p>Preparation for placement:</p> <p>Possible approaches to teaching English on your forthcoming placement, reminding you of what we have covered that might help you.</p>	<p>Begin to plan lesson sequences, based on our experience of teaching single lessons.</p>		<p>This session will support you in preparing for Beginning placement in relation to the teaching of English.</p>

	<p>The relation of this module to the requirements of the Beginning placement.</p> <p>The location of the Beginning placement paperwork and how to access it.</p>			
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Beginning Placement

During your placement, you have the opportunity to observe teaching and learning in English (particularly Spoken Language and Reading), ask questions (of the teacher and children) and reflect on how your learning in university sessions links to your observations in the classroom.

Engage with the following:

- How do the teachers use, control, and encourage talk?
- **Engage in talk**, e.g., question, probe, present challenges through role-play, drama, talk partners, group discussions.
- How are books used in the classroom?
- Observe **shared** and **small group focused (guided)** reading and discuss with the teacher.
- **Select and read/share a book with the whole class.** EY/KS1 – picture book; KS2 – short story, novel. You may want to start with a small group and build up to the whole class.

The focus for this module has been Spoken Language and Reading, therefore your teaching should also try to focus on these areas.

- Work with and adopt, share and work towards adapting mentors planning
- Begin to produce individual plans that identify clear learning outcomes, activities, assessment opportunities and organisation. You may want to start with planning for individual learners and build up to small groups and eventually whole class.

Programme: 4-year Campus Based		Subject: PLCC9591 English (year 2)		Subject team: MC, KP, ME, SS, DZ, PC
Session	Learn that/about – subject knowledge	Learn how to – pedagogical knowledge	Evidence Base	Rationale
1	<p>Writing: Motivation for writing.</p> <p>Purpose of writing.</p>		<p>What is the research evidence on writing? Education Standards Research Team, Department for Education Ref: DFE-RR238 ISBN: 978-1- 78105-144-3 © Department for Education November 2012</p>	<p>This module will focus on developing you as a teacher of English. It will enable you to identify key principles and practices in the</p>

	<p>Approaches to teaching writing.</p> <p>Text types.</p> <p>Writing in the National Curriculum.</p> <p>The Simple View of Writing.</p>		<p>Key Stage 1 and Key Stage 2 Literacy Guidance Reports https://educationendowmentfoundation.org.uk/tools/guidance-reports/ Changing How Writing Is Taught Steve Graham First Published May 22, 2019 Research Article https://doi.org/10.3102/0091732X18821125</p> <p>What Works Clearinghouse, 2012;</p> <p>Gillespie and Graham, 2010; Andrews et al, 2009; Santangelo and Olinghouse, (2009) https://writing4pleasure.com/2020/09/10/the-dfe-and-writing-for-pleasure-what-happened-and-what-should-happen-next/</p> <p>Young, R., (2019) What is it Writing For Pleasure teachers do that makes the difference?The Goldsmiths’ Company & The University Of Sussex: UK [Online] Available at:writing4pleasure.com</p> <p>Muijs, D. and Bokhove, C. (2020). Metacognition and Self-Regulation: Evidence Review. London: Education Endowment Foundation. https://educationendowmentfoundation.org.uk/evidence-summaries/evidence-reviews/metacognition-and-self-regulation-review/</p>	<p>teaching of English in the primary school.</p> <p>The focus will be on the knowledge and application of the teaching of writing, including how it links to oral communication and building on your previous work on reading.</p>
2	<p>Fiction Writing:</p> <p>A range of genres/text types.</p>	<p>Develop confidence in teaching different genres through speaking & listening and reading & writing.</p>	<p>https://nha-handwriting.org.uk/handwriting/</p> <p>DfE (2021) The reading framework: Teaching the foundations of literacy</p>	<p>To develop personal learning and reflection.</p>

	How particular skills can be supported within the writing process.	Develop work on texts and their language features within shared writing.	Ofsted (2017). 'Bold beginnings: The Reception curriculum in a sample of good and outstanding primary schools Medwell J., Wray, D., Moore, G., Griffiths, V. (2014) Primary English, Knowledge and Understanding, Sage	To develop knowledge and understanding of a range of genres and language features. To understand the role of shared writing – being creative. To develop the skill of modelling/scaffolding writing and developing children's independence for different abilities and needs.
3	Non-fiction writing: The main non-fiction text types and language features. Ways to meet different abilities and needs in classroom practice. How particular skills can be supported within the writing process.	Develop confidence in teaching writing in a range of non-fiction genres, making links between reading and writing. Develop work on texts and their language features within guided writing, including models and approaches such as : Extending Interactions with Non-Fiction Texts; Directed Activities Related to Text	EXIT model http://onlinelibrary.wiley.com/doi/10.1111/j.1467-9345.1995.tb00131.x/abstract Gilbert, I (2002) <i>Essential Motivation in the Classroom</i> London: Routledge Falmer Lewis, M Chapter 10 <i>Exploring Non-Fiction Texts Creatively</i> ; in Cremin, T (2009) <i>Teaching English Creatively</i> Oxford: Routledge). Mallett, M (2007) <i>Active encounters: Inspiring young readers and writers of non-fiction 4 -11</i> UKLA www.ukla.org ; Mallett, M (1992) <i>Making Facts Matter: Reading Non-fiction 5 – 11</i> . London: Paul Chapman Palmer, S., 'Writing Across the Curriculum	To develop personal learning and reflection. To develop knowledge and understanding of a range of genres and language features. To understand the role of shared writing – being creative. To develop the skill of modelling/scaffolding writing and developing children's independence for different abilities and needs.
4	SPaG audit			

Programme: 4-year Campus Based		Subject: PLCC9592 English (year 3)		Subject team: MC, KP, ME, SS, DZ, PC	
Session	Learn that/about – subject knowledge	Learn how to – pedagogical knowledge	Evidence Base	Rationale	
1	<p>Exploring Poetry:</p> <p>The main poetic text types and language features.</p> <p>The role that oral interaction [including reading aloud, reciting, performing and learning by heart] poems in developing pupils' response to and appreciation of poetry.</p> <p>Ways to consider creativity in classroom practice.</p> <p>How s can be supported within the writing process.</p>	<p>Teach writing in a range of poetic styles, making links between reading, writing and spoken language.</p> <p>Consider creativity in classroom practice.</p>	<p>Brownjohn, S, (1994) To Rhyme or not to Rhyme?</p> <p>Chambers, A. in 'Tell me: Children's reading and talk</p> <p>Corbett, P. (2008) Jumpstart! Poetry.</p> <p>Cremin, T. (2015). Teaching English Creatively 2nd ed'n. London. Routledge</p> <p>Myhill D(2001) Using talk to scaffold pupils' learning</p>	<p>To develop personal learning and reflection.</p> <p>To develop knowledge and understanding of a range of poetic forms and language features identified.</p> <p>To understand the role of shared writing – being creative.</p> <p>To develop the skill of modelling/scaffolding writing and consider how to plan for learning.</p>	
2	<p>Spelling, Punctuation and Grammar in writing:</p> <p>The purpose of teaching spelling, grammar and punctuation.</p> <p>Teaching grammar discretely and in context.</p>	<p>Approach the teaching of grammar.</p>	<p>Waugh, D., Warner, C. and Waugh, R. (2013) <i>Teaching Grammar, Punctuation and Spelling in the Primary School</i>. London: Sage.</p> <p>Copping, A (2016) <i>Being Creative in Primary English</i> London: Sage</p> <p>Cremin, T (2015) <i>Teaching English Creatively</i> Oxon: Routledge</p>	<p>To develop knowledge and understanding of the importance of spelling, grammar and punctuation in effective communication.</p> <p>Start to consider the use of different teaching approaches in your own practice.</p>	
3	<p>Playscripts and Drama:</p> <p>The conventions of play scripts.</p> <p>Why drama is valuable.</p>	<p>Identify and meet the challenges of conveying an entire story mainly through dialogue.</p> <p>Strategies for separating composition from preparation and performance.</p>	<p>Baldwin, P. (2008) <i>The Primary Drama Handbook</i>; Sage</p> <p>Day, A. (2011) <i>Drama sessions for primary schools and drama clubs</i> . 1st ed. London: Routledge. doi:10.4324/9780203827307</p>	<p>To develop personal learning and reflection.</p> <p>To develop knowledge and understanding of the role and conventions of playscripts.</p>	

	<p>The challenges of conveying an entire story mainly through dialogue.</p> <p>The importance of separating composition from preparation and performance.</p>		<p>Clements, J., Tobin, M. (2021) Understanding and Teaching Primary English; Sage</p> <p>Cremin, T. et al (2009) Jumpstart! Drama.</p>	<p>To understand the role of oral rehearsal and being creative.</p>
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Developing Placement

Engage with:

- Statutory and non-statutory guidance in the teaching of English
- How the application of research and policy in the classroom impact on pupils' learning
- What creative approaches support learning in English, including through ICT

The expectation for the teaching of English:

- adapt/develop/update medium term, weekly, individual lesson plans to support and sustain teaching for all learners
- sustain learners' interest and engagement in age/ability appropriate learning activities that meet intended learning outcomes
- plan and carry out formative and summative assessment to inform next steps in learning and teaching to support pupils' progress in writing

Where possible develop plans for a unit of English that work from Reading through to Writing with Spoken Language supporting all aspects. The unit should produce an outcome (related to 'writing') and should either incorporate, or work alongside discrete, small group focused (guided) reading, spelling, grammar and punctuation teaching and learning.

Programme: 4-year Campus Based		Subject: EALC6020 English (year 3)		Subject team: MC, KP, ME, SS, DZ, PC
Session	Learn that/about – subject knowledge	Learn how to – pedagogical knowledge	Evidence Base	Rationale
1	Introduction to the module			
2	Assessment in English: Different types of assessment and their application in English	Critically evaluate different types of assessment	Faragher (2013) Understanding Assessment in Primary education	
3	<p>Assessment spoken Language:</p> <p>The importance of assessing Spoken Language in children's learning in English.</p>	<p>Identify and assess children's skills in oral communication and spoken language.</p> <p>Assess a sample of talk.</p>	<p>Brown, A (2009) Developing language and literacy 3-8. London. Sage.</p> <p>NALDIC Formative Assessment Descriptors. http://www.naldic.org.uk/Resources/NALDIC/Teachi</p>	<p>The students' previous modules have focused on the curriculum for English and appropriate pedagogies. This is module is an opportunity to focus on the assessment of English, exploring statutory and non-statutory, in-school</p>

	<p>Statutory and non-statutory guidance and assessment.</p> <p>The challenges around the assessment of Spoken Language.</p> <p>The role of listening in Spoken Language.</p>	<p>To use templates/models to support assessment in oral communication and spoken language.</p>	<p>ng%20and%20Learning/NALDICEALFormativeAssessmentIntroductionfinal.pdf http://www.naldic.org.uk/Resources/NALDIC/Teaching%20and%20Learning/NALDICdescriptorsKS1.pdf http://www.naldic.org.uk/Resources/NALDIC/Teaching%20and%20Learning/NALDICdescriptorsKS2final.pdf</p> <p>Tulloch,K; Cullen,J; Jones,E; Saunders, L; Turner, G (2012) <i>Transforming QTS: Primary English Across the Curriculum</i>. London. Sage.</p>	<p>practices, adapting assessment to suit the needs of all learners, using assessment data and developing confidence in a range of assessment strategies.</p> <p>This session intends to focus the students on considering the assessment of oral communication and reflect on placement experiences.</p>
4	<p>Assessment of reading:</p> <p>Our understanding of the term 'reading'.</p> <p>Formative and summative assessment approaches for reading.</p>	<p>Evaluate and systematically reflect on formative and summative assessment approaches for reading.</p>	<p>EYFS, KS1 and KS2 ARA documents.</p> <p>Waugh et al <i>Primary English for Trainee Teachers</i> Ch. 4 Reading</p> <p>Medwell et al <i>Teaching Theory and Practice</i></p> <p>Bearne & Reedy <i>Teaching Primary English</i></p> <p>Saunders, L (2015) <i>Progression in Primary English</i> London: Sage</p> <p>Wyse, D. and Styles, M. (2007) <i>Synthetic phonics and the teaching of reading: the debate surrounding England's 'Rose Report'</i> Literacy, Vol.41 Iss.1 pp. 35-42</p>	<p>The students will focus on their understanding of statutory and non-statutory reading assessments. Students should reflect on their own experiences. Consider the collection of data.</p>
5	<p>Assessment of writing:</p> <p>A range of different approaches to the assessment of writing.</p> <p>Supporting children who are not meeting expected outcomes.</p> <p>Statutory summative assessment.</p>	<p>Use formative summative, and diagnostic assessment strategies in the classroom to support learning.</p>	<p>EYFS, KS1 and KS2 ARA documents.</p> <p>Keeping up – Pupils who fall behind in writing in KS2 (2007)</p>	<p>The students will focus on their understanding of statutory and non-statutory writing assessments and how children can be supported in their writing. Students should be able to reflect on their own placement experiences.</p>

<p>6 & 7</p>	<p>EAL learners and their assessment needs:</p> <p>EAL learners in primary schools.</p> <p>Statutory requirements relating to EAL learners.</p> <p>Challenges and barriers to learning and assessment.</p>	<p>Assess EAL learners.</p> <p>Adapt assessment for EAL learners.</p> <p>Consider the context of learning.</p>	<p>Arnot, et al (2014) <i>School Approaches to the Education of EAL students</i> Cambridge: The Bell Educational Trust</p> <p>Conteh, J. (2012) <i>Teaching Bilingual and EAL Learners in Primary Schools</i> Sage: London</p> <p>EAL NEXUS Pedagogic principles and teaching resources https://ealresources.bell-foundation.org.uk/teachers/effective-teaching-eal-learners</p> <p>National Association for Language Development In the Curriculum (NALDIC) https://naldic.org.uk/</p> <p>Spencer, V. (2013) 'How do we effectively meet the needs of children with EAL in the classroom?'</p> <p>Warner, E & Elton-Chalcraft, S (2017) <i>'Race, Culture and Ethnicity: teachers and children'</i> in Elton-Chalcraft, S. & Cooper, H. (3rd ed). <i>Professional Studies in Primary Education</i>. London: Sage.</p>	<p>So far, we have looked at the assessment of spoken language, reading and writing in relation to the National Curriculum.</p> <p>This session is intended to develop your understanding further by considering specific challenges to assessment (learners with English as an Additional Language).</p> <p>A background to EAL learners in England will be explored and resources suggested to support your practise.</p>
<p>8</p>	<p>Assessment processes and interventions:</p> <p>The purpose and use of interventions to support learning in English.</p> <p>The purpose of marking policies and how they support teaching and learning.</p> <p>The use of marking codes</p>	<p>Create intervention strategies.</p> <p>Mark children's writing.</p>	<p>Kendall,S., Straw,S., Jones,M., Springate, I., & Grayson, H.et al,(2008). <i>A Review of the Research Evidence: Narrowing the Gap in Outcomes for Vulnerable Groups</i>. Slough: NFER.</p> <p>Literacy and numeracy catch-up strategies. (2017 DFE-20010-2017 www.gov.uk/government/publications)</p> <p>Ofsted (2011) 'Assessing pupils' progress' initiative – Key findings</p>	<p>Through the module we have looked at the assessment of each aspect of English and considered how assessments can be adapted for diverse learners.</p> <p>There may be times when your assessment identifies particular needs in individual or small groups of children and this session is designed to help you plan to meet those needs.</p> <p>We will also consider how marking policies can support teaching and learning in English.</p>

Additional sessions in school	<p>Understand the planning process through phases process.</p> <p>Consider example of progression throughout phases, year groups and key stages</p>	<p>Plan sequences of work</p> <p>Demonstrate quality first teaching strategies that support all learners</p>	<p>School-based documents, e.g. KLIPs and LAPs</p>	<p>There are 4 sessions where you will visit and work with a local school. This provides you with the opportunity to link theory and practice as well as develop your understanding of progression and meeting the needs of all learners in English. It offers an opportunity for you to become familiar with school resources and documentation.</p>
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Q4: Mathematics Beginning MATC4010				
Session	Learn that (Subject knowledge)	Learn how to (Pedagogical knowledge)	Evidence base	Rationale
1	<p>Introduction to Maths</p> <ul style="list-style-type: none"> a raised awareness of the impact of teacher beliefs on effective mathematics teaching and considered the implications for your own learning a raised awareness of the features of good practice in primary mathematics begin to develop some familiarity with current documentation and approaches 	<p>They will have mathematics activities modelled to them and consider what and how they would help the children to learn.</p> <p>Learning theories and the role they play in practice – links to working memory</p> <p>high quality teaching & learning</p> <p>Planning for learning</p> <p>Understand the importance of a practical and discussion-based approach to the development of children’s mathematical understanding</p> <p>Identify the elements involved in good practice in primary mathematics and evaluate the appropriateness of different learning and teaching approaches within those elements.</p>	<p>Boaler, J. (2016) <i>Mathematical mindsets: unleashing students’ potential through creative math, inspiring messages, and innovative teaching</i> /. Edited by C. Dweck. San Francisco, California: Jossey-Bass</p> <p>Garry, T. (2020) <i>Mastery in Primary Mathematics [electronic resource] / A Guide for Teachers and Leaders</i>. London: Bloomsbury Education</p> <p>Garry, T. (2020) <i>Mastery in Primary Mathematics [electronic resource] / A Guide for Teachers and Leaders</i>. London: Bloomsbury Education</p> <p>Statutory framework for the early year’s foundation stage</p> <p>Setting the standards for learning, development and care for children from birth to five (2021)</p> <p>Mathematics programmes of study: key stages 1 and 2 (2013)</p>	<p>The mathematics is sequenced to help students become confident, enthusiastic and capable teachers of the subject. By starting with the students’ own attitudes and fears we can start to help the students to develop a love of the subject, as we work on their own understanding and address misconceptions.</p>
2	<p>Foundations of Numeracy</p> <ul style="list-style-type: none"> Introduced to the Audit, Tracking Document and Maths File To understand the principles of counting and representing number. To identify progression in children’s counting skills. To be aware of children’s difficulties in counting and representing number. 	<p>Learning theories and the role they play in practice – links to working memory</p> <p>A CPA approach.</p>	<p>Haylock, D. (2019) <i>Mathematics explained for primary teachers</i> /. 6th edition /. Edited by R. Manning. Los Angeles: SAGE</p> <p>Hansen, A. (ed.) (2020) <i>Children’s errors in mathematics</i>. 5th edition. London: Learning Matters</p> <p>The Counting principles</p> <p>Rochel Gelman and C. R. Gallistel (1986)</p> <p>Drews, D. and Hansen, A. (2007) <i>Using resources to support mathematical thinking: primary and early years</i>. Learning Matters.</p>	<p>The key features and the theories that underpin effective teaching are modelled and developed with practical ideas linked to school placements throughout. These are initially developed alongside, and through, an exploration of the fundamentals of mathematics (as in the 1st aim of the mathematics NC), with particular focus on conceptual understanding of counting, calculation and shape</p>
	<p>Effective use of resources</p> <p>Introduction to part A of assignment</p> <ul style="list-style-type: none"> A raised awareness of some of the features of effective resources Experienced and worked with some resources <p>Made links to Part A of your assignment</p>	<p>Learning theories and the role they play in practice – links to working memory</p> <p>A CPA approach and how the use of resources relates to this application of a theoretical approach.</p>	<p>Drews, D. and Hansen, A. (2007) <i>Using resources to support mathematical thinking: primary and early years</i>. Learning Matters.</p>	<p>Resources play a crucial part in aiding children’s understanding.</p> <p>Early introduction to the assignment helps build knowledge through the module.</p>

3	<p>Place Value</p> <ul style="list-style-type: none"> To further develop understanding of the place of resources in primary mathematics teaching To consider what is meant by place value To be introduced to some activities to develop an understanding of place value with children To be introduced to some resources which can support teaching of place value 	<p>Learning theories and the role they play in practice – links to working memory The use of resources to support learning Procedural and conceptual understanding</p>	<p>Haylock, D. (2019) Mathematics explained for primary teachers /. 6th edition /. Edited by R. Manning. Los Angeles: SAGE Hansen, A. (ed.) (2020) Children’s errors in mathematics. 5th edition. London: Learning Matter Broadbent, A. (2004). ‘Understanding Place Value. A Case Study of the Base Ten Game.’ <i>Australian Primary Mathematics Classroom</i>, Oct 2004, Vol. 9 Issue 4, p4546. Bruner, J. (1966). <i>Toward a Theory of Instruction</i>. London: Oxford University Press Cheung, P. and Ansari, D. (2021) ‘Cracking the code of place value: The relationship between place and value takes years to master’, <i>Developmental psychology</i>. United States: American Psychological Association, 57(2), pp. 227–240</p>	<p>Place value is important because it provides the foundation for understanding our number system, regrouping, multiple-digit multiplication and more in the decimal system, as well as a starting point for the understanding of other base systems.</p>
4	<p>Addition and Subtraction</p> <ul style="list-style-type: none"> Understand the inverse relationship between addition and subtraction and be introduced to some representations of these calculations. Be aware of the variety and progression of mental calculations and understand the importance of developing fluency with these. Develop conceptual understanding of written methods of addition and subtraction and know some ways children can be supported to learn these (including use of resources) Have evaluated the efficiency and effectiveness of addition and subtraction written methods. 	<p>Learning theories and the role they play in practice – links to working memory Procedural and conceptual understanding</p>	<p>Haylock, D. (2019) Mathematics explained for primary teachers /. 6th edition /. Edited by R. Manning. Los Angeles: SAGE Hansen, A. (ed.) (2020) Children’s errors in mathematics. 5th edition. London: Learning Matters</p>	<p>Addition and Subtraction helps children master the relationships between numbers and understand how quantities relate to one another</p>
5	<p>Multiplication and Division</p> <ul style="list-style-type: none"> Consider the skills, knowledge and understanding to equip children to competently multiply and divide Recognise the progression from mental calculations, through expanded methods to compact methods. 	<p>Learning theories and the role they play in practice – links to working memory</p>	<p>Haylock, D. (2019) Mathematics explained for primary teachers /. 6th edition /. Edited by R. Manning. Los Angeles: SAGE Hansen, A. (ed.) (2020) Children’s errors in mathematics. 5th edition. London: Learning Matters</p>	<p>Understanding how to multiply and divide numbers is essential to be able to solve maths problems quickly</p>

	<ul style="list-style-type: none"> • Be aware that mental calculations continue to play a vital role in written calculations. • Recognise common errors and misconceptions • Recognise the need for children to approximate answers in order to prevent errors • Identify areas for personal development of mathematics knowledge and understanding 			
6	<p>3D Shape: Explored the use of 3D mathematical apparatus and activities as an aid to mathematical understanding.</p> <ul style="list-style-type: none"> • Used precise terminology related to 3D and shape and construction • Considered implications for your own Subject Knowledge. • Discussed opportunities for assessment <p>2D Shape Explored the use of 3D and 2D mathematical apparatus and activities as an aid to mathematical understanding.</p> <ul style="list-style-type: none"> • Used precise terminology related to 3D and 2D shape and construction • Considered implications for your own Subject Knowledge. • Discussed opportunities for assessment 	The cycle of plan-teach-assess and effective formative assessment	<p>Haylock, D. (2019) <i>Mathematics explained for primary teachers</i> / 6th edition / . Edited by R. Manning. Los Angeles: SAGE</p> <p>Hansen, A. (ed.) (2020) <i>Children's errors in mathematics</i>. 5th edition. London: Learning Matters</p> <p>William, D. (2017), <i>Embedded Formative Assessment: (Strategies for Classroom Assessment That Drives Student Engagement and Learning)</i>, Solution Tree, Bloomington, Indiana. Available from: ProQuest Ebook Central. [22 December 2021].</p>	Learning shapes not only helps children identify and organize visual information, it helps them learn skills in other curriculum areas
7	Placement tutorial	The cycle of plan-teach-assess and effective formative assessment	<p>William, D. (2017), <i>Embedded Formative Assessment: (Strategies for Classroom Assessment That Drives Student Engagement and Learning)</i>, Solution Tree, Bloomington, Indiana. Available from: ProQuest Ebook Central. [22 December 2021].</p> <p>Drews, D. and Hansen, A. (2007) <i>Using resources to support mathematical thinking: primary and early years</i>. Learning Matters.</p>	Student support for assignment task and introduction to the planning cycle
8	Placement return and assignment support			
9	Group Tutorials File check/Audit/Tracking Document		Mooney, C. (2014) <i>Primary mathematics: knowledge and understanding</i> . 7th edn. London: Learning Matters.	

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<p>Programme: Q4 Developing SCMC5030</p>	<p>Subject/Module: Mathematics Module LOs *demonstrate ability to analyse the development of children’s problem solving skills within Mathematics; *observe and evaluate the opportunities for problem solving skills to be used in real-life contexts and other areas of the curriculum; *apply and reflectively evaluate your own knowledge and understanding when planning activities to assess and develop that of the children; *plan, assess and reflect upon whole class mathematics lessons.</p>	<p>Subject Leader: John Dudgeon Module Leader: Fiona Tidbury</p>	<p>Module Assignment: Title: A critical evaluation of the role of problem solving in facilitating children’s mathematical development in relation to this module and school experience. The assignment will consist of 2 parts, A and B A) A definition of mathematical problem solving: (200 words) Using a variety of sources, construct your own definition of mathematical problem solving. B) What is the role of problem solving in mathematics teaching and learning? (800 words) This should also include reflection on the implications for your personal and professional practice.</p>	
D	Learn that/about	Learn how to	Evidence Base	Rationale
1	<p>Problem solving (PS) and reasoning Learn that: *Problem solving and mathematical reasoning are viewed as key aspects of mathematics, in both mathematics education literature, and in the NC and EYFS *Problem solving skills and mathematical reasoning can be broken down into a number of separate components (eg conjecturing etc) *There are a variety of different types of problems which can be presented in different ways (words, visually etc) *Teachers are key role models who can influence the attitudes, values and</p>	<p>Learn how to: *tackle mathematical problems and recognise PS skills and mathematical reasoning used within the PS process in order to use this to incorporate within planning and teaching mathematics *access a range of problem solving activities that can be used to support planning and teaching</p>	<p>Haylock, D. (2019) Mathematics explained for primary teachers /. 6th edition /. Edited by R. Manning. Los Angeles :: SAGE (throughout module)</p> <p>Barmby, P. (2014) Understanding and enriching problem solving in primary mathematics /. Edited by D. Bolden and L. Thompson. Northwich, England: Critical Publishing (throughout module) https://educationendowmentfoundation.org.uk/education-evidence/guidance-reports/maths-ks-2-3 (throughout module) https://educationendowmentfoundation.org.uk/education-evidence/guidance-reports/maths-ks-2-3 (throughout module)</p>	<p>Having focused on the fundamentals of mathematics and the use of images and resources to support conceptual understanding in MATC4402 (NC Aim 1) , this module moves on to develop student’s understanding of mathematical reasoning and thinking (NC Aim 2) and problem solving (NC Aim 3). The introductory session considers the place of these in the NC and also in the EYFS framework, to underline their significance to students, and the students then engage in solving a series of problems, designed to exemplify a variety of aspects of problem solving and reasoning (e.g. conjecture, generalise, communicate etc). As follow-up, students begin reading for Part A of the assignment – a definition of mathematical PS, exploring the research in the process and further developing understanding of the topic.</p>

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	<p>behaviours of their pupils, with regards to PS, including feeling 'stuck' and persevering.</p> <p>*Working through examples together can be used to develop and highlight PS skills and reasoning.</p> <p>*Questioning is a key tool in helping children to develop PS and high quality classroom talk can be used to help develop PS and reasoning skills.</p> <p>*Group activities can be used to develop PS skills and reasoning, but children need to be supported with these.</p>		<p>evidence/guidance-reports/early-maths (throughout module)</p> <p>https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/335158/PRIMARY_national_curriculum_-_Mathematics_220714.pdf (throughout module)</p> <p>https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/974907/EYFS_framework_-_March_2021.pdf (throughout module)</p>	
2	<p>Problems including word problems.</p> <p>Learn that:</p> <p>*the EYFS characteristics of effective teaching and learning provide a foundation for developing mathematical PS and reasoning</p> <p>*mathematical PS and reasoning can be developed through play activities</p> <p>*research has identified various steps in the mathematical PS process and various strategies that can be used, and that children can be introduced to these and learn to apply them</p> <p>*research has identified challenges with teaching children to tackle word problems, and how these may be tackled</p> <p>*that various representations including bar models can help children with the mathematical structure of problems</p> <p>*that PS can be included at different points within</p>	<p>Learn how to:</p> <p>*recognise PS and reasoning within EY play activities</p> <p>*recognise stages and strategies within the PS process, and how these may be taught and learnt within the classroom</p> <p>*how to plan for the particular challenges around teaching word problems</p> <p>*how to use bar models and other representations to support the PS process</p> <p>*how to tackle challenges around when to include PS in learning sequences, and how to use resources such as the rich curriculum planning to support integration of PS with NC topics</p>	<p>Barmby, P. (2014) Understanding and enriching problem solving in primary mathematics /. Edited by D. Bolden and L. Thompson. Northwich, England: Critical Publishing (throughout module)</p> <p>Jones, L. (2003) 'The Problem with Problem Solving' in Thompson, I. <i>Enhancing Primary Mathematics Teaching</i>, Berkshire:McGraw-Hill Education</p> <p>Polya, G. (2004) <i>How to solve it : a new aspect of mathematical method</i> /. 2nd ed. Princeton, N.J. :: Princeton University Press</p> <p>Burton, L. (1995) <i>Thinking things through : problem solving in mathematics</i> /. Oxford :: Nash Pollock.</p> <p>Ofsted (2015) <i>Better Mathematics Conference Keynote Spring 2015</i>. Paper presented at the Better Mathematics Conference, Norwich, Norfolk. Available at:</p>	<p>Students continue to develop understanding of PS skills and processes through analysing a video of a child in and EY play setting, an making connections with the EYFS characteristics of effective teaching and learning, and developing foundations of mathematical PS and reasoning. Their initial exploration of PS skills and process (through formative assignment Part A) is developed through practical PS activities followed by reflection and discussion.</p>

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	teaching sequences, and what some of the advantages/disadvantages of these might be (including within mastery approaches)		https://www.slideshare.net/Ofstednews/better-mathematics-keynote-spring-2015 . Accessed 14.1.22 https://nrich.maths.org/content/id/11796/RoleMasteryNurturingYoungMathematicians.pdf https://www.ncetm.org.uk/classroom-resources/pm-reasoning-skills/	
3	<p>Multiplication and Division revisited/Weekly planning</p> <p>Learn that:</p> <ul style="list-style-type: none"> *secure subject knowledge enables teachers to teach effectively. *know a range of written methods for division and multiplication (link to NC appendix) *know how children might apply these in a range of PS contexts *know how diagnostic marking (as part of formative assessment) can be used to identify next steps *know how to develop an effective learning sequence in mathematics, to enable pupils to link new ideas to existing knowledge (exemplified through division) 	<p>Learn how to:</p> <ul style="list-style-type: none"> *carry out key written calculation methods for division and multiplication *plan a sequence of learning in mathematics, including how PS may be incorporated *use diagnostic marking as part of formative assessment to identify next steps within a learning sequence 	<p>Haylock, D. (2019) <i>Mathematics explained for primary teachers</i> /. 6th edition /. Edited by R. Manning. Los Angeles :: SAGE https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/335158/PRIMARY_national_curriculum_-_Mathematics_220714.pdf</p> <p>Garry, T. (2020) <i>Mastery in Primary Mathematics [electronic resource] / A Guide for Teachers and Leaders</i>. London: Bloomsbury Education</p>	<p>Students have covered the topic of multiplication and division in the first year module MATC4402, and often identify written methods as a SK target. Experience has shown they benefit from extra opportunity to revisit this, so are given PDA tasks (involving written division and multiplication) prior to this seminar, and opportunity in the session to explain methods to peers, using resources such as place value counters for division.</p> <p>The second part of the seminar addresses planning learning sequences in mathematics, in preparation for developing placement, developing ideas introduced in Yr 1 MATC4402, when individual lesson plans are covered, and included in the Yr 1 assignment.</p>
	<p>On Developing placement, all students will:</p> <p>Collect evidence of how aims 2 and 3 of the Mathematics NC (2013) are being addressed in school (ensure pupils reason mathematically and can solve problems by applying their mathematics to a variety of routine and non-routine problems). This might include notes from observations,</p>			

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	children’s work, examples of activities set etc and will be used to support your assignment for this module.			
4	<p>Measures. Learn that: *teaching measures begins with foundational concepts and skills which involve comparison and non-standard units, prior to the introduction of standard units *some ways that standard measures can be introduced (cm/m debate) *measurement is based on the principle of transitivity *practical approaches enable children to learn to measure and estimate, selecting appropriate equipment and units; *there are a variety of potential misconceptions relating to measures and use of measuring equipment, and ways that these may be addressed during teaching eg issues with reading scales *connections can be made between conversions of units of length and the place value system (including decimals) – relationships x 10, x100, /10, /100 etc</p>	<p>Learn how to: *use a variety of practical activities in planning and teaching measures *use knowledge of potential misconceptions to anticipate these within teaching.</p>	<p>Haylock, D. (2019) <i>Mathematics explained for primary teachers</i>. 6th edition. Los Angeles: SAGE Mooney, C. (2021) <i>Primary Mathematics: Knowledge and Understanding</i>. 9th Edition. SAGE Publishing. Clements, D.H. and Stephan, M. (2003) <i>Measurement in Pre-K to Grade 2 Mathematics</i> in Douglas H. Clements <i>et al.</i> (2011) <i>Engaging Young Children in Mathematics : Standards for Early Childhood Mathematics Education</i>. Mahwah, N.J.: Routledge (Studies in Mathematical Thinking and Learning). Smith, John & van den Heuvel-Panhuizen, Marja & Teppo, Anne. (2011). <i>Learning, teaching, and using measurement: Introduction to the issue</i>. ZDM. 43:617-20</p>	<p>This seminar covers a further area of mathematics, not included in the MATC4402 Yr 1 module, exploring as with other topics progression EY, KS1, KS2,, misconceptions, and practical approaches. However, this seminar also lays the foundations for session 6 in the following week, as it provides the mathematical content which is then applied during the D and T PS task which the students undertake.</p>
5	<p>Assignment Lecture Lecture provides detailed guidance on the requirements of the module assessment (see above for assignment details)</p>			<p>Whole cohort lecture provides students with consistent messaging around assignment preparation and requirements.</p>

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<p>6</p>	<p>Applying mathematics – Design and Technology Task Learn that: *aspects of mathematics are integral to fully develop knowledge, skills and understanding in another curriculum area (exemplified through DT) *other curriculum areas can provide a context for mathematical problem solving and application</p>	<p>Learn how to: *identify the mathematics knowledge, skills and understanding, PS and reasoning applied within a DT task *identify a variety of tasks which might provide a context for mathematical PS and reasoning, in other curriculum areas *recognise the impact of the affective domain on PS, through carrying out a PS activity themselves</p>	<p>Barmby, P. (2014) Understanding and enriching problem solving in primary mathematics /. Edited by D. Bolden and L. Thompson. Northwich, England: Critical Publishing Fox, S. (2010) Mathematics across the curriculum : problem-solving, reasoning, and numeracy in primary schools /. Edited by L. Surtees. London :: Continuum</p>	<p>This seminar puts the students in the role of a ‘problem solver’ and encourages them to reflect on the processes and skills which are involved in PS, also highlighting the significance of the affective domain. The seminar follows on from ‘Measures’, with this knowledge being applied (along with geometrical knowledge from Yr 1) to the design and construction of perfume packaging. This supports the students in looking for opportunities in school to apply mathematical knowledge and skills in other curriculum areas. Reflections feed into the assignment.</p>
<p>7</p>	<p>PDA – Audit/Targets/Actions Optional assignment tutorials Students use this PDA time to carry out their mathematics audit for this module, and to use the results of this to identify targets and record these on their Target Tracking Document, along with appropriate actions to address these. They also use the time to ensure all actions from Yr 1 are completed, and to begin on Yr 2 actions. Individual tutorials support assignment preparation.</p>			<p>Audits, Targets, Tracking Document and (evidenced) actions are a key part of students addressing gaps in their own subject knowledge, and time is given during each module for students to work on these.</p>
<p>8</p>	<p>Statistics Learn that: *foundations of statistics begin in EY with same/different/sorting *there are a variety of components of the data handling cycle – not all of which will be undertaken every time *data can be represented in different ways and these will be introduced at different stages in KS1 and KS2 (eg pictograms/bar charts/line graphs).</p>	<p>Learn how to: *plan for opportunities for foundational concepts of same/different/sorting in EY *plan appropriate activities in statistics, recognising the progression in representing data in the NC and specifically teaching these *plan for opportunities for statistics to be applied within the context of other curriculum areas such as science or history</p>	<p>Haylock, D. (2019) Mathematics explained for primary teachers /. 6th edition /. Edited by R. Manning. Los Angeles: SAGE Donaldson, G. (2014) Handling Data in Taylor, H. and Harris, A. (eds) Learning and Teaching Mathematics 0-8. London:Sage</p>	<p>This seminar covers the mathematical topic of statistics, including foundations of statistics (same/different and sorting), progression through EY, KS1 and KS2, key concepts, vocabulary, and misconceptions. In line with the focus of the module, students explore possible opportunities for statistics to be used in PS scenarios and in other curriculum areas such as science.</p>

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	<p>*there is a difference between continuous and discrete data and these are represented in different ways.</p> <p>*that application of the data handling cycle to PS scenarios and across different curriculum areas provides a context for the teaching of statistics and helps children recognise and explore real life applications</p>			
9	<p>Group tutorials – Audit/target/actions – discussion and file check Students bring their audits, Target Tracking Sheets and evidence of Actions, as well as their Mathematics Files to group tutorials. Students are encouraged to share their approaches to addressing their targets, including sharing useful resources and approaches. Links are made to preparing to teach topics on placement, which are less familiar to students.</p>			<p>Students provide peer support regarding useful sources and approaches. Tutors are able to track engagement with the process and arrange follow up meetings where necessary. Any gaps in session notes in files can also be addressed.</p>