**Primary 5-11 Curriculum Map How Children Learn**

***Post Graduate Programme***

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| **University Curriculum** |
| **Session Sequence** | **Session Content Subject Specific Components/s** | **Learn That****(CCF reference in numerics e.g. 1.1)** | **Learn How****(CCF reference bullets alphabetically e.g. 1c)** | **Links to Research and Reading** | **Formative Assessment mode** |
|  | An introduction to memory and an understanding that learning requires information to be committed to memory.Memory has limited capacity and be separated into sensory, working and long term.Working memory and strategies to support attention and rehearsal.Understand the importance of prior learning and that misconceptions can arise where prior learning is weak. When planning strategies to recall and retrieve will support memory. | 1,2,3,4,51,2,3,4,5,6 | 1a,1b,2a,3a,3b1a,1b,2a,3a,3b,4a, 4b | GLAZZARD, J. and STONES, S., 2021. Evidence based primary teaching. Los Angeles: Learning Matters. Anon., n.d. Cognitive Science Approaches in The Classroom: A review of the evidence| Education Endowment Foundation | EEF [online]. [online]. Available from: https://educationendowmentfoundation.org.uk/education-evidence/evidence-reviews/meta cognition-and-self-regulation.  | Demonstrates understanding in taught sessions regarding how children learn |
| **Session 2** **1 x 1 hour seminar** | Planning, how does structured planning, teaching modelling and breaking things down to smaller chunks and worked examples can reduce cognitive load. The stages of committing to memory. That regular purposeful practice can support this. The role of retrieval. | 1,2,3,4,5,6,7,8,9 | 4a,4b,5a,5b,6a,6b | Anon., n.d. Cognitive Science Approaches in The Classroom: A review of the evidence| Education Endowment Foundation | EEF [online]. [online]. Available from: https://educationendowmentfoundation.org.uk/education-evidence/evidence-reviews/meta cognition-and-self-regulation. BOYD, P., HYMER, B., and LOCKNEY, K., 2015. Learning teaching: becoming an inspirational teacher [online]. Northwich, United Kingdom: Critical Publishing. Available from: <https://ebookcentral.proquest.com/lib/edgehill/detail.action?docID=4067583>.Cowan, N. (2008) What are the differences between long-term, short-term, and working memory? Progress in brain research, 169, 323-338.GLAZZARD, J. and STONES, S., 2021. Evidence based primary teaching. Los Angeles: Learning Matters. HOWARD-JONES, P.A., 2014. Neuroscience and education: myths and messages. Nature Reviews Neuroscience [online]. 15 (12), pp. 817–824. Available from: https://go-gale-com.edgehill.idm.oclc.org/ps/retrieve.do?tabID=T002&resultListType= RESULT\_LIST&searchResultsType=SingleTab&hitCount=1&searchType=Ad vancedSearchForm&currentPosition=1&docId=GALE%7CA393517065&doc Type=Report&sort=RELEVANCE&contentSegment=ZONE-MOD1&prodId=A ONE&pageNum=1&contentSet=GALE%7CA393517065&searchId=R1& ;userGroupName=edge&inPS=true. | Demonstrates understanding in taught sessions regarding how children learn |
| **Session 3****1 x 1 hour online lecture** | Know the role the teacher plays to support learning and memory. Understand strategies including worked examples and modelling The impact of targeted questioning on pupils’ retrieval and recall  | 1,2,4,5,6,7,8,9 | 1a,b,2,3a,3b,4a,4b,5a,5b,6a,6b | Anon., n.d. Cognitive Science Approaches in The Classroom: A review of the evidence| Education Endowment Foundation | EEF [online]. [online]. Available from: https://educationendowmentfoundation.org.uk/education-evidence/evidence-reviews/meta cognition-and-self-regulation. GLAZZARD, J. and STONES, S., 2021. Evidence based primary teaching. Los Angeles: Learning Matters.  | Demonstrates understanding in taught sessions regarding how children learn |

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| **School Based Curriculum – Introductory Phase** |
| **Observing:** Observe how expert colleagues use strategies to support memory and deeper learning. How to reduce distractions that take attention away from what is being taught.**Planning:** Observe how expert colleagues break tasks down into constituent components, to support working memory. Through effective mentoring know how to take into account pupil’s prior knowledge and when planning how much new information to introduce. How to sequence lessons so that pupils secure foundational knowledge before encountering more complex knowledge. **Teaching:** Consider strategies to support and reduce cognitive load and support working memory, including breaking complex materials into smaller steps.**Assessment:** Check prior knowledge and understanding during lessons.**Subject Knowledge:** Encourage pupils to share emerging understanding and points of confusion so that misconceptions can be addressed.Explaining how new content builds on what is already known.Discuss and analyse strategies with expert colleagues.  |
| **Subject Specific Components/s (know, understand, can do)** | **Learn That****(CCF reference in numerics e.g. 1.1)** | **Learn How****(CCF reference bullets alphabetically e.g. 1c)** | **Links to Research and Reading** | **Formative Assessment** |
| Understand the role the teacher plays in supporting memory and effective learning.Understand the interconnectedness of learning | 1,2,3,4,5,6 | 1a,1b,2,3a,3b,4a,4b | EEF neuroscience | Weekly Development Summary Lesson ObservationsLink Tutor  |

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| **School Based Curriculum – Development Phase** |
| **Observing:** Observe how expert colleagues plan regular review and practice of key ideas and concepts over time and deconstructing this approach. How to design practice, generation and retrieval tasks that provide just enough support so that pupils experience a high success rate when attempting challenging work. **Planning:** Observe how expert colleagues break tasks down into constituent components over a sequence of lessons.Balance exposition, repetition, practice and retrieval of critical knowledge and skills. Increase challenge with practice and retrieval as knowledge becomes more secure. **Teaching:** How to identify possible misconceptions and plan how to prevent these from forming. Linking what pupils already know to what is being taught. **Assessment:** Draw conclusions about what pupils have learnt by looking at patterns of performance over a number of assessments with support and scaffolding from expert colleagues**Subject Knowledge:** Rehearse and refine sequencing lessons. How to identify possible misconceptions and plan how to prevent these from forming. Linking what pupils already know to what is being taught.  |
| **Subject Specific Components/s (know, understand, can do)** | **Learn That****(CCF reference in numerics e.g. 1.1)** | **Learn How****(CCF reference bullets alphabetically e.g. 1c)** | **Links to Research and Reading** | **Formative Assessment** |
| Know the role the teacher plays to support learning and memory. Understand strategies including worked examples and modelling The impact of targeted questioning on pupils’ retrieval and recall  | 1,2,4,5,6,7,8,9 | 1a,b,2,3a,3b,4a,4b,5a,5b,6a,6b |  Anon., n.d. Cognitive Science Approaches in The Classroom: A review of the evidence| Education Endowment Foundation | EEF [online]. [online]. Available from: https://educationendowmentfoundation.org.uk/education-evidence/evidence-reviews/meta cognition-and-self-regulation. BOYD, P., HYMER, B., and LOCKNEY, K., 2015. Learning teaching: becoming an inspirational teacher [online]. Northwich, United Kingdom: Critical Publishing. Available from: <https://ebookcentral.proquest.com/lib/edgehill/detail.action?docID=4067583>.Cowan, N. (2008) What are the differences between long-term, short-term, and working memory? Progress in brain research, 169, 323-338.GLAZZARD, J. and STONES, S., 2021. Evidence based primary teaching. Los Angeles: Learning Matters. HOWARD-JONES, P.A., 2014. Neuroscience and education: myths and messages. Nature Reviews Neuroscience [online]. 15 (12), pp. 817–824. Available from: https://go-gale-com.edgehill.idm.oclc.org/ps/retrieve.do?tabID=T002&resultListType= RESULT\_LIST&searchResultsType=SingleTab&hitCount=1&searchType=Ad vancedSearchForm&currentPosition=1&docId=GALE%7CA393517065&doc Type=Report&sort=RELEVANCE&contentSegment=ZONE-MOD1&prodId=A ONE&pageNum=1&contentSet=GALE%7CA393517065&searchId=R1& ;userGroupName=edge&inPS=true.Rosenshine, B. (2012) Principles of Instruction: Research-based strategies that all teachers should know. American Educator, 12–20. https://doi.org/10.1111/j.1467-8535.2005.00507.x. | Child profile:Scaffolding - what scaffolding has the teacher provided to support the child’s engagement and understanding of the subject matter?Fading – how has the teacher gradually withdrawn support to encourage the child to work and think more independently.Working memory – what strategies do they observe to support working memory |

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| **School Based Curriculum – Consolidation Phase** |
| **Planning:** Observing how expert colleagues plan regular review and practice of key ideas and concepts over time (e.g. through carefully planned use of structured talk activities) and deconstructing this approach. Discussing and analysing with expert colleagues how to design practice, generation and retrieval tasks that provide just enough support so that pupils experience a high success rate when attempting challenging work**Teaching:** Through curriculum design, balance exposition, repetition, practice and retrieval of crit6ical knowledge and skills. Through curriculum design, increase challenge with practice and retrieval as knowledge becomes more secure.**Assessment:** Draw conclusions about what pupils have learnt by looking at patterns of performance over a number of assessments with support and scaffolding from expert colleagues and use this information to feed into curriculum design. **Subject Knowledge:** Through curriculum design, rehearse and refine sequencing lessons. How to identify possible misconceptions and plan how to prevent these from forming. Linking what pupils already know to what is being taught.  |
| **Subject Specific Components/s (know, understand, can do)** | **Learn That****(CCF reference in numerics e.g. 1.1)** | **Learn How****(CCF reference bullets alphabetically e.g. 1c)** | **Links to Research and Reading** | **Formative Assessment** |
| Understand the role of curriculum design with consideration to how children learn.The impact of targeted questioning on pupils’ retrieval and recall  | 1,2,3,4,5,6,7,8,9 | 1a,b,2,3a,3b,4a,4b,5a,5b, 6a,6b | Anon., n.d. Cognitive Science Approaches in The Classroom: A review of the evidence| Education Endowment Foundation | EEF [online]. [online]. Available from: https://educationendowmentfoundation.org.uk/education-evidence/evidence-reviews/meta cognition-and-self-regulation.  | Child profile – Consideration of curriculum design with a focus on one child |