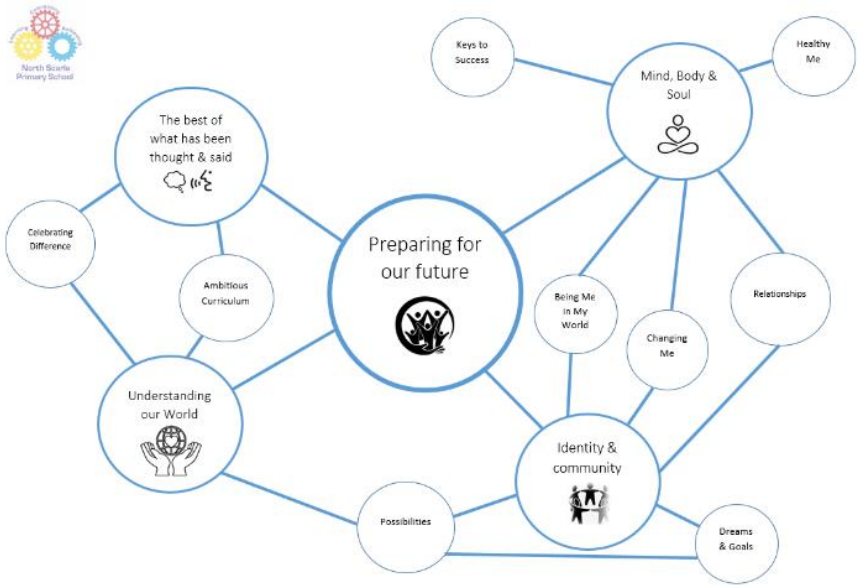
Curriculum Policy

Our logo reflects our understanding of learning as a real, working and connected model.

- Learning- Learning is most effective with spaced repetition and is continuous in order to change long term memory and become knowledge.
- Connecting- We provide a wide breadth of study which supports children making connections across different subjects and increases understanding. ALL students have the same opportunities to connect with the world around them, both academically and culturally.
- Achieving- ALL students are capable of success.

1. Our **'North Scarle Curriculum'** shapes our curriculum breadth. It is derived from an exploration of the backgrounds of our students, community, our beliefs about high quality education and our values. Our Curriculum is centred around **Preparing children for their future,** it is rooted in what our children need to be successful.



The model above looks and acts like a Schema of learning (see Appendix 1).

With 'Preparing children for future' at the heart, our curriculum has 4 broad themes-

- Mind, Body & Soul
- Identity & Community
- Understanding our World
- The best of what has been thought & said

Basic Principles

The basic principles to our Curriculum Model are:

1. Learning is a change to long term memory.
2. Repetition is required for long term retention.
3. Knowledge is vital as it is required for thinking and the more one has the easier it is to learn and remember more.

Curriculum Model- Intent

2. Our Curriculum is shaped by Curriculum Breadth. Breadth ensures we give our students appropriate and ambitious curriculum opportunities. Each subject has Curriculum Breadth through a Breadth Map which has been carefully designed- consciously sequenced and connected and is underpinned by our basic principles above.

Breadth of study- the context in which we visit the Threshold concepts.

Class 3 – Cycle A			
	Term 1	**Term 2**	**Term 3**
Week 1	**World War II** **Location, main events, conflict.** The Outbreak of war	**The Maya** **Location, main events and beliefs**	**Explorers** **Travel and exploration, society and main events** Explorers of the 1900s Roald Amundsen, Amelia Earhart, Edmund Hillary and Neil Armstrong
Week 3	**World War II – Impact** **Society** Evacuation	**The Maya – builders and growers** **Settlements and food/farming**	**The Tudors** **Main events and conflict** Battle of Bosworth, Henry VII and Sir Walter Raleigh
Week 5	**World War II – Weapons** **Conflict and artefacts** Propaganda	**The Maya – clues from the past** **Artefacts, culture, past times and society**	**The Tudors** **Society** Crime and punishment
Week 7	**WW II – weapons (local history)** **Conflict** Battle of Britain	**The Maya – clues from the past** **Artefacts, culture, past times and society**	**Tudors Monarchs** **Society, beliefs and conflict** Henry VIII and the church of England
Week 9	**WWII – Impact** **Conflict** Holocaust	**The Maya – conscious connection** **Society** Christopher Columbus and Sir Walter Raleigh	**Tudor Monarchs** **Culture, past times, artefacts and settlements** The Globe Theatre, Shakespeare, renaissance
Week 11	**WWII – Impact** **Conflict and society** World and Britain UN/legacies/rationing	**Explorers** **Travel and exploration, society and main events** 1900s Roald Amundsen, Amelia Earhart, Edmund Hillary and Neil Armstrong	**Gainsborough Old Hall trip (local history)** **Society, culture, past times, settlements, artefacts.**

3. Our curriculum distinguishes between Subject Breadth and Threshold Concepts.

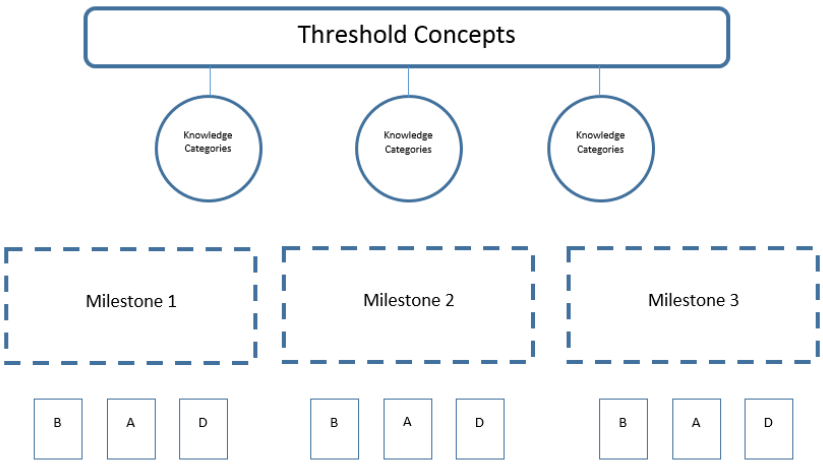
Threshold Concepts- concepts that 'open up a new and previously inaccessible way of thinking about something'.

4. Threshold concepts tie together the subjects into meaningful schema. The same concepts are explored in a wide breadth of contexts over and over throughout children's time at school. Through this 'forwards-and-backwards engineering' of the curriculum, students return to the same concepts over and over and gradually build understanding of them.

5. Knowledge categories in each subject give students a way of expressing their understanding of the threshold concepts. They act as a hook to retrieve and express understanding.

6. For each Threshold Concept there are 3 Milestones, each of which includes the knowledge that students need to understand the threshold concepts, they provide us our progression model.

7. Within each milestone, students gradually progress in their fluency and strength of knowledge through three cognitive domains: basic, advancing and deep. The goal for our students is to display sustained mastery at the 'advancing' stage of understanding by the end of each milestone and for the most able to have greater depth of understanding at the 'deep' stage. The timescale for sustained mastery or greater depth is, therefore two years of study.



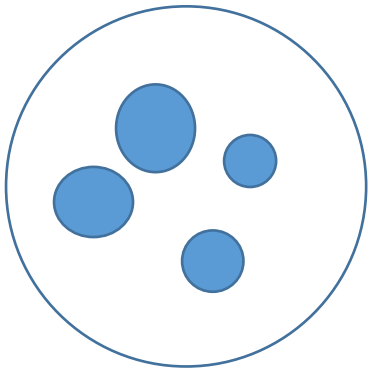
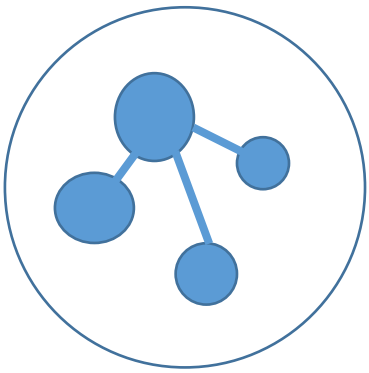
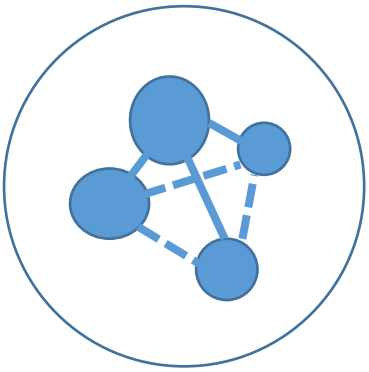
	Basic	Advancing	Deep
Procedural	weak	fluent	automatic
Semantic	Weak meaning	Strong, semantic understanding	Understanding beyond the obvious

8. Cognitive science tells us that working memory is limited and that cognitive load is too high if students are rushed through content. This limits acquisition of long-term memory. Cognitive science also tells us that in order for students to become creative

thinkers, or have a greater depth of understanding they must first master the basics, which takes time. This is the reasoning behind two years of study.

9. As part of our progression model we use different **pedagogical styles** in each of the cognitive domains of basic, advancing and deep. This is based on the research of Sweller, Kirschner and Rosenshine who argue to direct instruction in the early stages of learning and discovery based approaches later. We use direct instruction in the basic domain and problem based discovery in the deep domain.

Model of long term memory

Basic	Advancing	Deep
		
Information	Knowledge	
Weak schema- relying on working memory	Fluent- drawing on long term memory, freeing working memory	Automatic- relies on long term memory, freeing working memory to be inventive
Weak meaning	Strong, semantic understanding	Understanding beyond the obvious
Basic	Advancing	Deep
Acquiring knowledge	Applying knowledge	Reasoning with knowledge
Heavily structured and modelled	Task first, then review	Coaching, questioning, inventive thinking
Success criteria given before task	Success criteria after the task for review	During through questioning, coaching

Implementation

10. In his research, Ebbinghaus showed we 'lose' information as time goes on. However, he concluded that our memory is strengthened if we wait and then repeat.

Our curriculum is designed on evidence from cognitive science; three main principles underpin it:

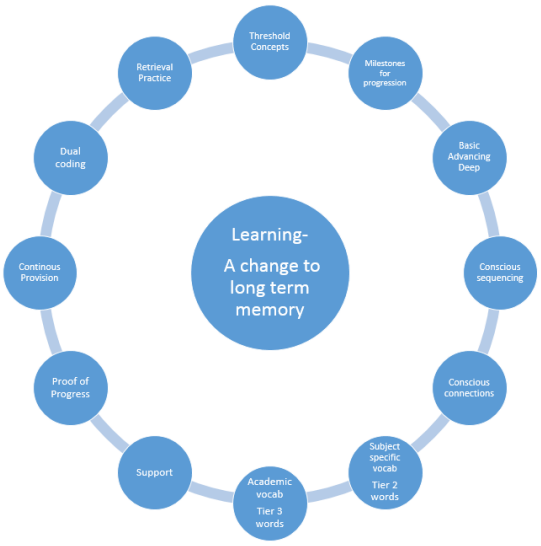
- **Learning** is a change to long term memory. It is most effective with spaced repetition.
- **Repetition** is required for long term retention. **Retrieval** of previously learned content is frequent and regular, this increases both storage and retrieval strength.
- **Knowledge** is vital as it is required for thinking and the more one has the easier it is to learn and remember more. **Conscious sequencing** and **Conscious connections** help pupils to make webs of knowledge and aid long-term retention.

11. In addition to the three principles we also understand that **learning is invisible in the short term and that sustained mastery takes time**.

12. Our content or breadth is subject specific. We return to the same Threshold Concepts and/or Knowledge Categories time and time again, building on them through the progression model. We make **Conscious Connections** to further **strengthen schema.**

13. **Continuous provision**, in the form of daily routines and things the children see and talk about often, replaces the teaching of some aspects of the curriculum and, in other cases, provides retrieval practice for previously learned content.

14. When considering learning as a change to long term memory, teachers have understanding of different **pedagogical styles**.



Impact

15. Because learning is a change to long term memory, it is impossible to see the impact in the short term. We understand that learning is invisible in the short term and that sustained mastery takes time.

16. We do, however use probabilistic assessment based on deliberate practise. This means that we look at the practices taking place to determine whether they are appropriate, related to our goals and likely to produce results in the long run.

17. We can see Proof of Progress:

    - In student's work over time- they are returning to and building upon threshold concepts and knowledge categories.
    - In lesson observations- to see if the pedagogical style matches our depth expectations (see point 14).
    - By talking to pupil's about their learning- they can discuss their learning, connect understanding and over time show a deep understanding and knowledge base to draw from.
    - By talking to teachers, parents & governors- they see an increase in children's understanding and knowledge overtime, children are able to use what they know and they know more overtime.

Appendix 1

Research evidence used in the development of our curriculum model:

Ebbinghaus- 'The forgetting curve' 1885

E D Hirsch JR- 'Why knowledge matters' (2016) Cambridge, MA, US: Harvard Education Press

P A Kirshner- 'Cognitive load theory: implications of cognitive load theory on the design of learning', in Learning and Instruction, 12 (1), 2002, 1-10

D Lemov, C Driggs, E Woolway- 'Reading reconsidered (2016) San Francisco, US: Jossey Bass publishing

Jan Meyer, R Land 'Threshold concepts and troublesome knowledge: linkages to ways of thinking and practising within the disciplines' (2003)

C Quigley- 'The essentials Curriculum: Threshold concepts for long-term memory' (2019) 5th Edition, first published as Essentials; full spectrum curriculum

B Rosenshine- 'The case for explicit, teacher-led, cognitive strategy instruction', paper presented at the annual meeting of the American Educational Research Association, Chicago, IL, March 24-28 (1997)

J Sweller- 'Cognititve load during problem solving: Effects on learning, Cognitive Science' 12, 257-285 (1988)

Appendix 2

Definitions:

Learning- a change to long term memory.

Information- facts provided.

Knowledge- the theoretical understanding of a subject.

Skills- the ability to do something.

Schema- we build them in our long term memory to draw upon.

Procedural memory- a part of the long-term **memory** that is responsible for knowing how to do things, e.g. Tying shoe laces, riding a bike.

Episodic memory- a person's unique memory of a specific event, e.g. a visit to a farm. Personal Development requires a large amount of episodic memory.

Semantic memory- a type of long-term memory involving the capacity to recall words, concepts, or numbers, which is essential for the use and understanding of language, e.g. the purpose of a farm.

Cultural capital- the background knowledge of the world that students need for inference and understanding.

Breadth of study- the range of situations students need to grow confidence in threshold/key concepts.

Threshold concepts- concepts that 'open up a new and previously inaccessible way of thinking about something'.

Creativity- cross-pollination of knowledge.