Marish Academy Trust

Curriculum Intent, Implementation and Impact Statement and Policy
2019-2020

Resilience for learning, Resilience for life through our 4D curriculum.

Curriculum Intent Statement

At Marish Academy Trust our curriculum is always evolving in response to the needs and interests of our pupils and our community, but it remains based on the following key principles:

1. We believe that learning is a change to long-term memory.
2. Our aims are to ensure that our students experience a wide breadth of study and have, by the end of each key stage, long-term memory of an ambitious body of procedural and semantic knowledge, which is interconnected and creates meaning.

Curriculum Intent model

1. **Curriculum drivers** shape our curriculum breadth. They are derived from an exploration of the backgrounds of our students, our beliefs about high quality education and our values. At Marish Academy Trust our key curriculum drivers are:

   - Aspiration, enshrined in our vision, for all children to achieve the best possible outcomes and so improve their life chances.
   - Resilience building, so each child leaves our schools equipped with the capacity to overcome the challenges and changes they will inevitably face in life.
   - Rich, varied and ambitious curricular and extra-curricular opportunities, which endow pupils with cultural capital.

   NB. We believe cultural capital gives our students the vital background knowledge required to be informed and thoughtful members of our community who understand and believe in British values and make a positive contribution to society, throughout life.

2. **Curriculum breadth** is shaped by our curriculum drivers, cultural capital, subject topics. It provides the opportunities needed for each child to become a proficient communicator, reader, writer and mathematician by the end of KS2. As well as this, our curriculum breadth is designed so that our pupils will get to study the best of what has been thought and said by many generations of academics and scholars.

3. Our curriculum distinguishes between **subject topics** and **'threshold concepts'**. Subject topics are the specific aspects of subjects that are studied and incorporated together to create curriculum breadth. This is sometimes described as *substantive knowledge*.

4. **Threshold concepts** connect subject topics and key skills into meaningful schema. They are sometimes described as *skills or disciplinary knowledge*. The same concepts are explored in a wide breadth of topics. Through this 'forwards-and-backwards engineering' of the curriculum, students return to the same concepts over and over and gradually build understanding of them; from basic, to advanced, to embedded understanding.

5. For each of the **threshold concepts in the core subjects areas,** we will formally assess progress twice yearly, with the exception of years 2 and 6. In these year groups which face statutory tests, we will formally assess three times a year, in the core subjects. Our aim for all children is that they will meet or exceed age related expectations, but specific targets are measured from individual starting points. Informal assessments, which inform future planning, will continue to be carried out on an ongoing basis in all lessons. (Please refer to the *Trust's Assessment Recording and Reporting Policy,* for further details.)

6. **For foundation subjects threshold concepts**, which are interwoven throughout the subjects and whole curriculum, we have created a progression model based on *three milestones.* Each milestone includes the procedural and semantic knowledge students need to understand the threshold concepts. These milestones assess whether a pupil's understanding is at a *basic, advancing or embedded level*. Given that learning is a change to long-term memory, milestones assessments in foundation subjects are carried out only once a year. Our expectation is that after one year of study, children who achieve the basic level of understanding will have reached age related expectations and after a second year, children will be at either an advanced or embedded level of understanding.

7. **Cognitive science** confirms that working memory is limited in humans. Pupils who are rushed through content, without explicit and repetitive *over learning* of threshold concepts (skills), descend into *cognitive overload,* which limits the acquisition of long-term memory. Cognitive science also tells us that pupils need to first master the basics in order for them to become creative thinkers, or have a greater depth of understanding. This takes time and repetition of threshold concepts through a variety of different content. So for example: in Geography we might learn about Africa, USA, Scandinavia, India and Italy in comparison with the UK, without ever learning the skills of 'being a Geographer', such as identifying physical and human features accurately, or interpreting maps, or the impact of humans on the landscape.

8. Within each Milestone, pupils gradually progress in their procedural fluency and semantic strength through three cognitive domains: basic, advancing and embedded. The goal for pupils is to display sustained mastery at the 'advancing' stage of understanding by the end of each milestone and for the most able to have a greater depth of understanding at the 'embedded' stage. **The time-scale for sustained mastery or greater depth** is therefore two years of study and although we will assess pupils' progress in the foundation subjects once a year, we will only expect advanced or embedded understanding of threshold concepts, at the end of the second year.

9. As part of our progression model we use a different pedagogical style in each of the cognitive domains of basic, advancing and embedded. At the basic stage of learning, there is more direct instruction, as teachers explain and model and pupils practice and repeat. We move on to discovery based approaches later and problem solving investigation in the embedded domain. This is a reversal of common pedagogical practices over the last 20 years in UK schools.

10. Also as part of our progression model we use **POP tasks** (Proof of Progress) which assess and demonstrate our typical curriculum expectations in each cognitive domain.

Diagram of Curriculum Intent model:
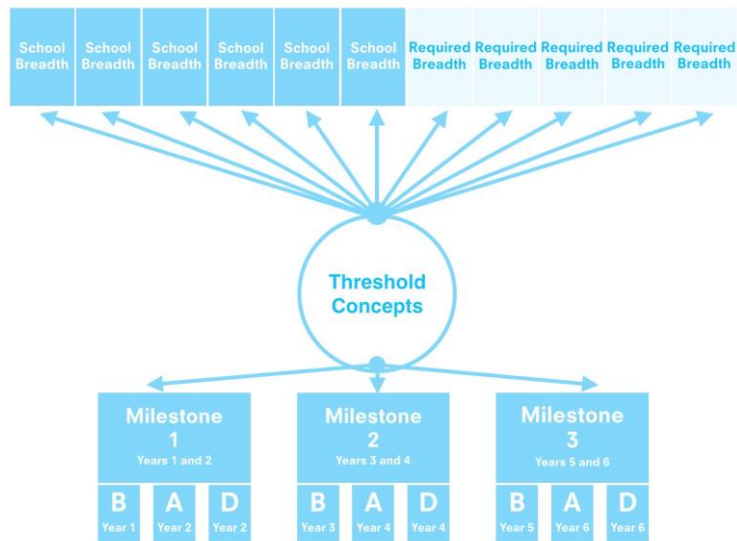
Implementation at Marish Academy Trust

11.   Our curriculum design is based on evidence from cognitive science; three main principles underpin it:

a   Learning is most effective with **spaced repetition**.

b   **Interleaving** helps pupils to discriminate between topics and aids long-term retention. (Geography and History taught together)

c   **Retrieval** of previously learned content must be frequent and regular, which **increases both storage and retrieval strength** in long term memory.

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

13.   Our content starts as **subject specific**. This is a 1 Dimensional curricula model. We make links across subjects and through topics creating a 2D curricula model. The model becomes 3D as we interweave threshold concepts and skills into what we teach and pupils learn, repeatedly over time. Finally, we make intra-curricular links to strengthen schema and connections between new content and what the pupil or class already has learnt and stored in their long term memory. Getting this last part right, takes real skill, careful planning and delivery and an awareness of the whole curriculum and threshold concepts/skills progression across the whole Primary Phase.

14.   **Continuous provision**, in the form of daily routines, replaces the teaching of some aspects of the curriculum and, in other cases, provides retrieval practice for previously learned content.

Impact of the Curriculum at Marish Academy Trust

15. Because learning is a change to long-term memory it is **impossible to see impact in the short term**. We do, however use **assessment** based on threshold concepts as described above. We review our ongoing curricula practice to determine whether it is appropriate, related to our goals and likely to produce/is producing the results we want.

16. We use **comparative judgement** in two ways: in the tasks we set **(POP Tasks, see point 12)** and in comparing a student's work over time.

17. We use lesson observations to see if the **pedagogical style and delivery** matches our pedagogical and milestone expectations **(see point 11)**