



# St Barnabas

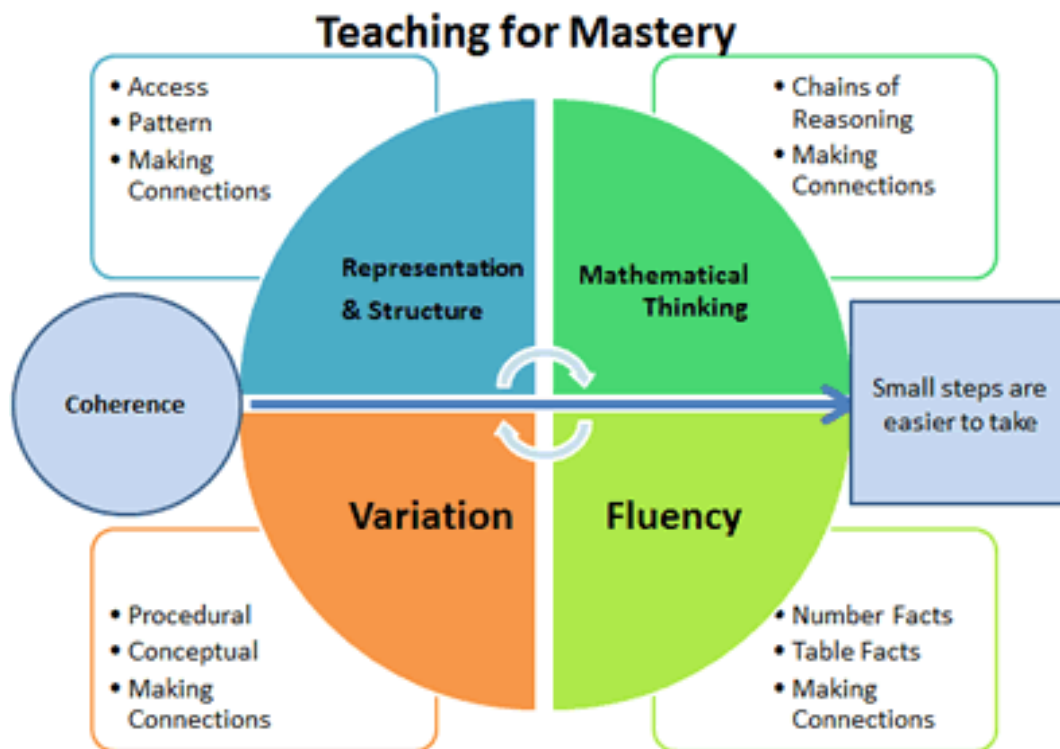
Church of England Primary Academy

A member of **CDARI**

## St Barnabas Guide to Maths

### Lessons

At St Barnabas, lessons should be taught with a mastery approach using the 'Five Big Ideas' published by the NCETM that have been developed from research evidence. If lessons are designed with these ideas in mind, it will lead to a more coherent sequence of lessons which will help all children access the concept and then apply them to a range of contexts. The 'Five Big Ideas' are explained in more detail below:



## **Representation and Structure**

Representations used in lessons expose the mathematical structure being taught, the aim being that students can do the maths without recourse to the representation.

## **Mathematical Thinking**

If taught ideas are to be understood deeply, they must not merely be passively received but must be worked on by the student: thought about, reasoned with and discussed with others.

## **Fluency**

Quick and efficient recall of facts and procedures and the flexibility to move between different contexts and representations of mathematics.

## **Variation**

Variation is twofold. It is firstly about how the teacher represents the concept being taught, often in more than one way, to draw attention to critical aspects, and to develop deep and holistic understanding. It is also about the sequencing of the episodes, activities and exercises used within a lesson and follow up practice, paying attention to what is kept the same and what changes, to connect the mathematics and draw attention to mathematical relationships and structure.

## **Resources**

To give staff a starting point for their planning and to develop subject knowledge we use 'White Rose Maths'. This is to help teachers feel confident in their teaching and to make the sequence of lessons easier to develop. However, it is important to note that we do not rely solely on this as we should be reacting to the learning that has gone on in our own classrooms.

Below I have listed the resources we have available to aid planning and what they may be used for:

## White Rose

Teaching video - To develop subject knowledge and know how to bring a concept across to the children.

Worksheets - Potential activities to give to the children. Full worksheets should not be used! Any questions given to the children should be carefully selected and reflect the teaching that has taken place.

Flashbacks - Ideal for morning activities to revisit previous learning.

True or False questions - Ideal opportunities for the children to reason. Possible opportunity for challenge.

## Classroom Secrets

Worksheets - They have activities that follow the 'White Rose' small steps. This allows the children to be exposed to different types of questions and gives the staff access to another resource.

Supporting activities - Possible practical activities that could be used as an intervention.

## Learning by Questions

Question Sets - LBQ have question sets designed to follow the 'White Rose' small steps. Allows work to be marked in the lesson and to respond to misconceptions immediately.

## Testbase

Although we are not teaching to the test, testbase contains some questions with plenty of variation and gets the children comfortable with test style questions. It has a useful search engine to look for questions that may benefit your lesson.

## Books

### Presentation

- Short date underlined.
- Can I question displayed and underlined e.g. Can I add two 3 digit numbers? - At the end of the lesson you can tick the question if they

have met expectations. If they haven't, an intervention needs to take place (should be evidenced in the children's books).

- If children are working on LBQ, please still display 'Can I' questions in books and a subheading above this of LBQ. This will make me aware that it has already been marked online.
- Nice mix of worksheet and book work (I'm aware there'll be more worksheet work in KS1 to make it easier for the children to navigate).
- No full 'White Rose' worksheets - This will make it look like we are just following a scheme with no reasoning behind it. Please select activities that reflect the teaching taking place and respond to the needs of the children.

### Assessment

At the end of each term, the children will carry out a PUMA assessment. This gives us an accurate reflection as to which level the children are currently working at.

'White Rose' end of block assessments - You will find end of block assessments under each unit on the 'White Rose' website. These can be used to give you an understanding of whether all of your children are ready to move on with their learning.

Learning by Questions Topic Reviews - You will find topic reviews under each unit on the LBQ website. These can be used to give you an understanding of whether all of your children are ready to move on with their learning and where they are going wrong.

Daily assessment - Work should be actively marked within the lesson so that misconceptions can be identified and intervention can be arranged at the earliest opportunity.

### Mastering Number

The mastering number programme is a project that aims to secure firm foundations in the development of good number sense for all children from Reception through to Year 1 and Year 2. The aim over time is that children will

leave KS1 with fluency in calculation and a confidence and flexibility with number. Attention will be given to key knowledge and understanding needed in Reception classes, and progression through KS1 to support success in the future.

To access:

Follow the link - <https://axis.ncetm.org.uk/>

### Mental Maths/Fluency

For mental maths/fluency please refer to the following documents:

St Barnabas mental calculation document -

[https://docs.google.com/document/d/1ISi1APM-WpgS8i4DDvcddordGBNyCjzAhX0\\_sm7Na\\_E/edit](https://docs.google.com/document/d/1ISi1APM-WpgS8i4DDvcddordGBNyCjzAhX0_sm7Na_E/edit)

This gives you examples of how to teach mental strategies and what we should be looking for from the children.

St Barnabas mathematical fluency policy -

[https://docs.google.com/document/d/11ix-ENlh-J\\_LEczkohuaCWw0e4fAh1F0IsLPs-uxJI/edit](https://docs.google.com/document/d/11ix-ENlh-J_LEczkohuaCWw0e4fAh1F0IsLPs-uxJI/edit)

This outlines number facts that the children should be able to rapidly recall by a certain point in their school life. Please make sure you are referring to this as it will benefit the children as the maths becomes more challenging and provides a clear pathway right through school.