

The Starting Point

Children In Reception and Year 1 have been following the Mathematics Mastery program since September.

PHOTO HERE

Ofsted inspectors visited Ark Primary school in June 2011 to observe Mathematics Mastery in practice and to see how the programme could be adopted more widely. The Ofsted team interviewed pupils and staff. They reviewed the course materials, examined pupils' work and observed seven maths lessons. Their conclusion was that:

“Pupils’ achievement in number is outstanding. Pupils are developing a high level of proficiency for their age in addition, subtraction, multiplication and division. This is underpinned by a secure understanding of place value and good recall of number facts.”

At ARK Blacklands we are delighted with the progress children are making.

DATA HERE

For further Information about Mathematics Mastery, please visit www.mathematicsmastery.org

Key Stage I Mathematics Overview

| Big ideas | Reception Modules | | | | | | Year 1 Modules | | | | | | Year 2 Modules | | | | | |
|-----------------------------|-------------------|---|---|---|---|---|----------------|---|---|---|---|---|----------------|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| Number in base ten | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Patterns and sequences | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Measurement | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Shapes and position | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Addition and subtraction | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Mental calculations | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Word problems | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Money | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Time | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Graphs | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Multiplication and division | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Fractions | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

- ✓ Master
- ✓ Apply
- ✓ Connect



ARK Blacklands
Primary Academy



**Information leaflet for
parents of children in
Reception and
Key Stage I**

Tracking Pupil Progress

In Mathematics Mastery assessment is continuous. From the beginning of every lesson, teachers and teaching assistants will be assessing what their pupils are, or are not understanding and use this to scaffold each segment of the lesson. Interventions will be both planned for and 'live', meaning that misconceptions are dealt with immediately and high attaining pupils are challenged appropriately.

PICTURE OF PUPILS WORK

What's new about the Mathematics Mastery approach?

Actually, none of the individual aspects of the Mathematics Mastery programme is 'new'. They are tried and tested successful approaches that the best teachers, departments and schools have been using for years. However, what is special about Mathematics Mastery is that it brings these approaches and techniques together in a rigorous and systematic structure.



The Curriculum

The Mathematics Mastery curriculum has been developed to ensure every child can achieve excellence in mathematics. It provides pupils with a deep understanding of the subject through a concrete, pictorial and abstract approach. This ensures pupils fully understand what they are learning.

Key features of our Maths Mastery curriculum:

- ☺ High expectations for every child
- ☺ Fewer topics, greater depth
- ☺ Number sense and place value come first
- ☺ Research -based curriculum
- ☺ Objects and pictures always before numbers and letters
- ☺ Problem solving is central
- ☺ Calculate with confidence– understand why it works

Mathematics Mastery places emphasis on the cumulative mastery of essential knowledge and skills in mathematics. It embeds a deeper understanding of maths by utilising a concrete, pictorial, abstract approach so that pupils understand what they are doing rather than just learning to repeat routines without grasping what is happening.



The Role of Parents

Parents have a key role to play in helping children to understand that mathematics can be:

- ☺ fun
- ☺ useful
- ☺ sociable
- ☺ challenging
- ☺ relevant
- ☺ and make sense!

Frequent and varied practice of key skills in number can best be provided by games, particularly those involving dice and cards as well as involving children in everyday activities that make use of maths.

Measuring

- **Cooking**- weighing and following instructions
- **Measure yourself!** - make a height strip. Keep a graph to show your growth! How much have you grown?
- **Measure stuff!** - use a tape measure
- **Telling the time**- how long until...? Analogue /digital time, Days of the week, dates, keep a calendar!

Picnic or Party maths:

- Preparing food for a group of people is a real problem solving opportunity; how many cups can we fill with one jug, how many pieces of pizza can we cut from each one? A great opportunity to use terms like 'half' 'quarter' 'double' and put those tables into practice.

Shopping games:

- Set up a mini supermarket in the kitchen and give the children some real money to go shopping with.
- Change can be the trickiest concept and needs to be taught in 'real' shopping activities which can be done really well at home.

Number games

- Board games
- Snakes and ladders
- Dominoes
- Playing card games eg snap, doubles
- Dice games eg exchange game
- Have fun playing with a calculator and try out those signs!

Shapes everywhere

- **Shopping Shape Sort:** let your child loose on the packages and sort them into cuboids, cylinders, cubes
- 2-D shape pictures and patterns
- Which shapes can you draw? you will need a ruler for some of them!

How you can do Maths at Home

