

# Maths Times Tables and Maths Fluency at Westfields Junior School

## Aims:

- To improve attainment in mathematics for children of all abilities throughout the school.
- To improve the confidence of children across the school in mathematics.
- To provide children with the mental strategies and quick recall required for tackling more difficult concepts and solving problems.
- To motivate pupils to make progress in their mental recall and recognise and reward their successes.
- To provide parents with an understanding of their child's current ability and their next step.
- To help children recognise the language used in mathematical problems and understand which operation is required.

## How the test works

The mental maths scheme runs between Year 3 and Year 6 and will take children from basic number facts through to more difficult application of their times tables and fluency knowledge (key facts).

The scheme consists of two weekly 3-minute tests. In order for children to complete a level and gain the certificate, they must achieve full marks on 2 tests. There is a test for times tables and a test for number fluency. When they have achieved this 'rank' they are then able to move up to the next level.

There are different tests at each level, making it harder for children to simply 'learn the test', ensuring they are applying genuine knowledge

and understanding. There will also be tests involving mathematical vocabulary to help improve understanding of the terminology used in word problems (including real-life contexts).

The theme for the scheme is the 'Math-Magicians'. Children will be able to rise through the various ranks of the wizarding world in both the times tables and number fluency departments.

### How the tests are divided

There are 6 tests in each year group. The tests have been broken into 6 chunks against the National Curriculum objectives, making achievement at each level more manageable. Below is an outline of the tests and the breakdown of the curriculum objective.

Year 3	Tables	Number facts
Apprentice	$X / \div 2, 5, 10$	Number bonds to 20
Initiate	$X / \div 3, 4, 8$ (and above)	Number bonds to 100
Adept	$X / \div$ multiples of 10	10, 100 more / less
Illusionist	$X / \div 50 \times 100$	Partition 3 digit numbers
Enchanter	Counting on and back in 1/10	Ordering $\lt \gt$ up to 1000
Conjuror	Fractions of amounts- multiples of tables learnt	+ / - HTU +/- TU mentally

Year 4	Tables	Number facts
Alchemist	$\times / \div 6, 9, 7$	Number bonds to 1000 (multiples of 10)
Arcane Alchemist	$\times / \div 11, 12$ (and above)	Partition 4 digit numbers
Pyromancer	$\times / \div 25, 100, 1000$	Ordering $<>$ over 1000
Arcane Pyromancer	$\times / \div 1$ or 2 digit by 10, 100	Counting forward and backwards through 0 (counting sentence)
Elementalist	Counting up in 10ths and 100ths	Rounding to nearest whole, 10, 100, 1000
Arcane Elementalist	Fractions of amounts linked to tables	$+ / -$ HTU $+/-$ TU mentally

Year 5	Tables	Number facts
Mage	$\times / \div$ all tables	Ordering $<>$ up to 1,000,000
Temporal Mage	Multiples and factors	Counting forward and backwards through 0 (written)
Sorcerer	$\times / \div$ wholes and decimals by 10, 100, 1000	Rounding to nearest multiple of 10 (100, 1000, 10,000)
Witch/Warlock	Primes, squares, cubes	Rounding decimals to nearest whole or $1/10$
Wizard	$\times$ proper fractions by wholes	Mentally add/ subtract larger numbers
Grand Wizard	$\times$ mixed numbers by wholes	Adding and subtracting fractions common multiples

Year 6	Tables	Number facts
Druid	$\times / \div$ all tables	Ordering $\lt \gt$ up to 10,000,000
Cleric	Common multiples and common factors and primes	Rounding wholes to nearest 100, 1000, 10,000, 100,000, 1,000,000 in context
High Cleric	$\times / \div$ wholes and decimals by 10, 100, 1000 up to 3dp	Negatives numbers in context
Master	$\times$ simple pairs of proper fractions	Order of operations BODMAS
Grand Master	$\div$ proper fractions by wholes	Compare and order fractions
Deity	Algebra	Add and subtract fractions – mixed numbers, different denominators