

Maths Parent Workshop

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It is important for
all of us to
remember...

Educating a child is a
partnership between
parents and the child's
school.



The Maths Curriculum

The National Curriculum for Mathematics aims to ensure all pupils:

- ❖ Become **FLUENT** in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and are able to recall and apply their knowledge rapidly and accurately to problems
- ❖ **REASON MATHEMATICALLY** by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- ❖ Can **SOLVE PROBLEMS** by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.



What is in there?

- Higher expectations where we benchmark against age-related expectations from this and other countries
- Progression to be shown year-by-year, rather than whole key stages
- Conceptual development of number addressed in detail - especially in relation to number
- Fewer things in more depth in Primary - mastery approach
- All pupils expected to build firm foundations and not be accelerated into subsequent years curriculums
- Introduction of formal algebra



What happens at WFJS?

- Daily lessons that are 1 hour long
- Lower school have an additional 40 minutes which focuses on fluency and core mathematical skills related to this (multiplication tables, key skills such as dividing and multiplying by 10, 100, 1,000)
- Greater time spent on learning key skills, broadening and developing a deeper understanding, asking the children to reason and challenge throughout
- Times table revision factored into lessons
- Speedy maths daily which reinforces key fluency, mental mathematics skills and enables retention for learning key facts



Beginning of a maths lesson

Focus on fluency or mental strategies through a variety of activities such as:

- Big Maths, Beat That!
- Quick recall of numbers or facts through games, use of apparatus, follow me activities and/or practice skills from previous lessons, including reasoning activities where appropriate
- Number mats to consolidate skills and vocabulary
- Mental arithmetic activities
- TTRS times tables tests and practice to ensure that certificates are being checked off by the teacher/TA



During the lesson

We embed the children's understanding of key concepts by:

- Developing a key skill or new learning through teaching and practise of said skills – initially utilising fluency practise and then moving on to reasoning and problem solving using those key skills.
- Use of kinaesthetic ways of learning so children build, draw, watch, say and write during these sessions, as well as use a plethora of equipment to support their learning.
- Utilising group, paired and individual activities
- Use of mini whiteboards, equipment, problem solving activities, reasoning discussions and sometimes text books



End of the lesson – reflection

A plenary is a time to reflect on what has been learnt and can be used at times throughout the lesson to draw together ideas and help others understand key skills.

Plenaries are not always left to the end of the lesson, with more and more teachers now utilising mini plenaries throughout their teaching to support and assess all the learners in their group, including the children self-marking work and editing.

Teachers can also use this time to challenge those learners that are demonstrating that they understand the learning quickly.

Plenaries give the children time to use their purple pen to write a problem of their own, a rule, a reflection, an idea, a prediction using reasoning and/or problem solving to develop and consolidate key learning.



Problem solving using reasoning and visualisation



- The bar model, which we also refer to as the ‘part, part, whole model’, is a tool to help solve arithmetic and algebraic word problems. It is a common problem solving tool used in Singapore and other parts of the world. Surprisingly, it actually originates from Britain and was apparently used quite widely in 20s and 30s!
- Put simply, it is a diagram or a bar can be a valuable representation to enable children to represent the problems in such a way that the mathematical structures are exposed for more visual learners.
- This enables pupils to ‘see’ the problem clearly and to then recognise the strategy they need to solve the problem.
- **It is not a calculation tool.**

An example:

Amy had some shells. She gave 70 to her friend. She had 80 left. How many did she have to begin with?

70	80
150	

What if she gave 50 to her friend?

What if she gave 65 to her friend?

What if she gave 87 to her friend?

What if she gave 113 to her friend?



More maths at WFJS



- Snap group – a very small support group who work with specialised TA for 10 minutes each day.
- Key children are asked to go to use technology three times a week to practise key concepts utilising Mathletics and Times Tables Rock Stars.
- Speedy Maths Books – every day practice at speed and mental arithmetic outside of the maths lesson. This covers all of the mental arithmetic that each child should know by the end of each year group.
- Chrome Books can be utilised across groups to support learning.
- Assessment- oral, written, computer.
- Homework- reinforcing what has been learnt. Mathletics & Times tables Rockstars – homework support and fun!

Cross curricular – how much do we *really* use maths in other subjects? (A lot!)



- Science – measuring, constructing tables of data, drawing graphs
- Art – repeating patterns, shapes, translation and sequences
- History – timelines, dates, ages, periods of reign
- English – sequencing (instructional writing and language), counting syllables (haiku), identifying patterns and beats in lines and words
- Geography – distances, populations, temperatures, directional language, reading from Ordnance Survey Maps
- Music – counting beats
- PE and Games – timing, distances, shape, symmetrical and asymmetrical balances

Helping at home

Other useful Maths Websites for Children

<http://amathsdictionaryforkids.com>

<http://www.bbc.co.uk/bitesize/ks1/maths>

<http://www.bbc.co.uk/bitesize/ks2/maths>

<http://www.ictgames.com/resources.html>

<http://www.ilovemathsgames.com>

<http://www.mathsisfun.com/index.htm>

<http://www.mathszone.co.uk>

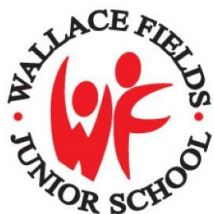
<http://www.multiplication.com>

<http://www.primarygames.co.uk>

<http://resources.woodlands-junior.kent.sch.uk/maths>

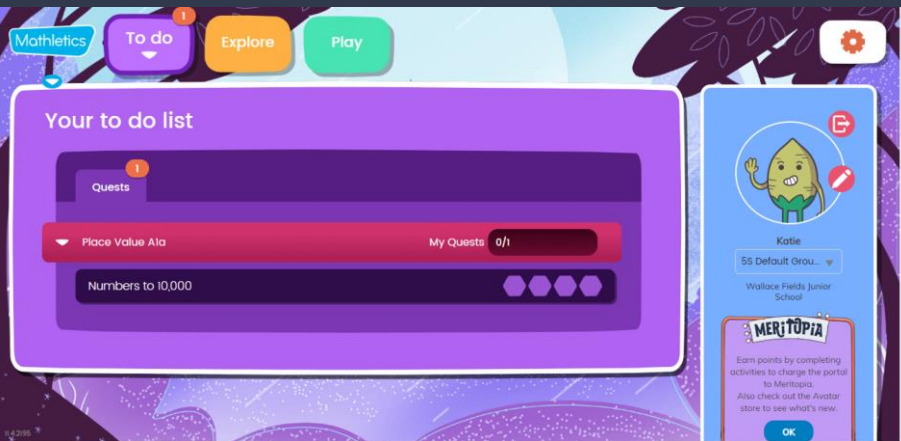
<http://www.topmarks.co.uk>

<https://www.tutorhunt.com/tutor-bot/>



- Take time to play and talk with your child in a positive way – try not to say ‘I could never do maths...’ your children may start to see this as acceptable for themselves too!
- Always praise what they’re doing and take an interest in your child’s homework – ask them to explain.
- Look at <http://www.oxfordowl.co.uk/home/maths-owl/maths> and <https://www.topmarks.co.uk/maths-games/7-11-years> - in particular the money resources - the children hardly see money these days! Yet it is fundamental that they learn how to manage, use and calculate with money!
- Take advantage of talking to your child’s teacher at parents evening to ask how you can specifically help your child at home

Mathletics



Every child will have access to Mathletics www.mathletics.co.uk.

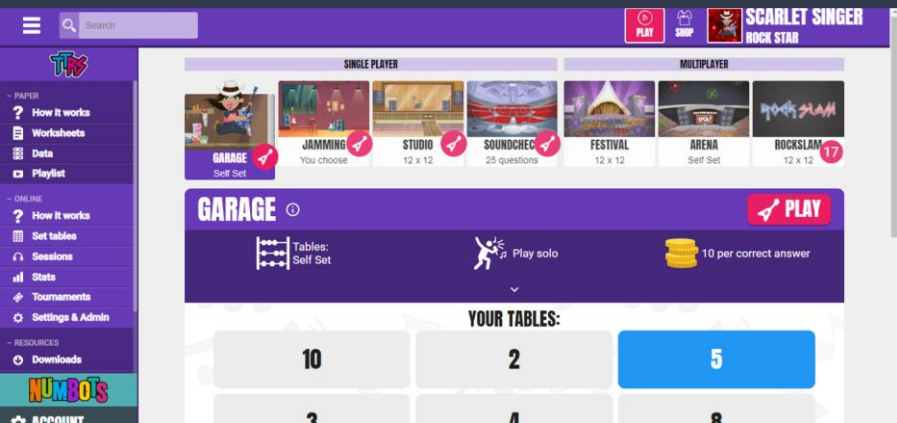
They should all have their username and password added in the front of their reading record or homework diary over the first few weeks of school.

Not only does this site have Mathletics live, where your child can challenge another child to timed quick recall of number facts, but it also has a curriculum section, where their group teacher will select some activities for them to work on.

There are also lots of fun activities and problems that the children can have a go at, at home, such as **Rainforest Maths, problem solving games.**

There is also the concept search tool which can help to go over key ideas at home if your children are stuck!

Times Table Rockstars (TTRS)



We use TTRS at Wallace Fields as a way of ensuring that your children have plenty of interactive access to lots of times tables activities – a bedrock required for much of the maths that they will have to work with in the upper and secondary school maths.

Your children will be in a 'band' and they will have to work their way up from being a busker to potentially being a stadium rockstar through specific and consistent practise!

The praise for this resource was great throughout last year with lots of certificates and competitions using the resource ensured great involvement of the children!



Resources for maths



- Use Times tables Rockstars little and often – we will be asking the children to complete three 10 minute sessions per week.
- Write times tables out on paper or use books from bookshops such as WHSmith. • Listen and recite with a rhythm – Mathletics have some songs. Use times tables CDs, clapping or stepping out along an imaginary number line (e.g. on the way back or to school.) Packs of cards and dice are also great to use for quick fire games.
- Allow children to count up or down while gathering objects. (e.g. socks, apples, cakes, pegs, conkers.)
- Use some of the internet resources we can supply and websites to help discussion – for example BBC Bitesize, NRich games and activities, Oxford Owl, Maths4MumsandDads website, Top Marks great website for interactive games.

Homework

- Times Tables Rockstars three times per week.
- Mathletics Quest (1 for Lower School and 2 for Upper School)
- Ask your children to explain what they have been doing in their lessons and what methods they have been using.
- Our Calculation Policy is available, so you can see the processes and methods that we are teaching in school. it is to be renewed and checked this year, but current one is available at: <http://www.wallacefields-jun.surrey.sch.uk/>
- Come in and talk to the teacher or email them with any concerns.



Board games!

Please don't forget the importance of snakes and ladders and other board games!

- Allows for discussions on how to move along the board:
 - • count on from where you landed (e.g. 26 and 6 means I am on 32!)
 - • add the score of the dice to where you start (e.g. 35 add 5 is 40!)
 - • use monopoly to gain and spend money.



Cards

Just a pack of cards?

- Use cards to familiarise children with 1-9 digits and what they look like as objects.
- Play snap so children recognise those digits.
- Play games where scores have to be added up and compared.
- Use them to learn tables by turned over the cards and multiplying it by the chosen times table.
- Make or buy a set of times table cards to play snap with.



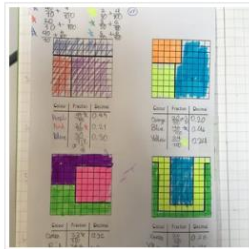
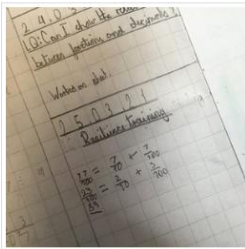
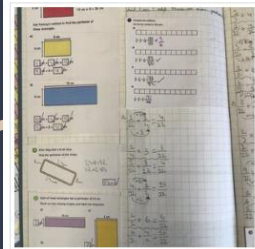
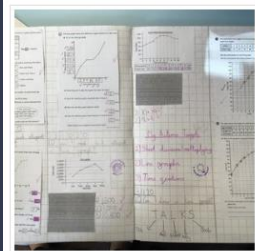
Thank you so much
for all your support
with maths at
WFJS!



- Encourage your child with a positive attitude to maths.
- Highlight how and where Maths is important in real life!
- Work with them, try not to do the work for them.
- Practise for short periods of time not hours upon hours.
- Make it fun!

School website:

<https://www.wallacefields-jun.surrey.sch.uk/learning/maths>



Maths Provision



SEND and Challenge



Multiplication Tables



Mathletics



How to videos



Useful links