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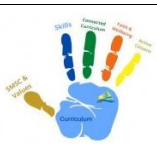
| Darlinghurst ACADEMY | **Why Maths?** |  | Core Skills |

## A message from Mrs Dunne, our Maths lead:

We aim to make maths as interesting and as stimulating as possible, being creative and imaginative in our teaching choices and in constantly challenging children to explain their strategies using age appropriate mathematical vocabulary.
We promote teaching maths in real life contexts so that the children understand the usefulness of the subject. We provide scaffolds for those children that need it and every lesson includes several layers of challenge.

If you have any questions about maths please contact me at mrsdunne@darlinghurst.co.uk

## Design and Purpose

At Darlinghurst, we want our children to think like mathematicians and develop a real love of maths. We encourage our children to develop a deep conceptual understanding of mathematical concepts, to develop their mathematical thinking and to use the rich language and communication surrounding maths. We aim to give children the opportunity to master maths through problem solving and reasoning. Maths lessons are taught daily. Children have opportunities to represent their mathematical thinking in many different ways using concrete objects, models and images as well as using more traditional calculations and algorithms.

## Difference

Our children learn to be successful learners through building on their number and arithmetic skills in order to be able to estimate calculations and to be more accurate in their work.
They develop their knowledge of Maths concepts through the progressive teaching of Mastery Maths. We have deliberately layered our lessons to consolidate core number skills at the beginning of each class. We have moved towards teaching more explicit mental strategies to strengthen the children's accuracy in answering calculations. We also adopt the CPA approach (concrete, pictorial, abstract) so that children fully comprehend the strategies being taught to them.

**'Achieving Excellence Together'**

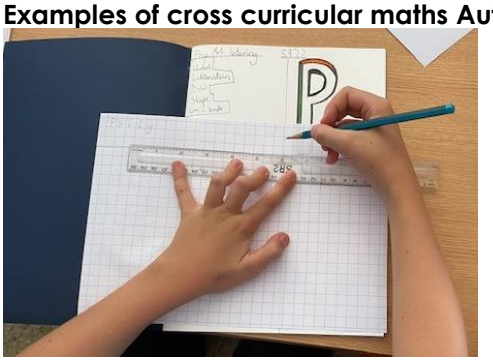
## Termly Reflections

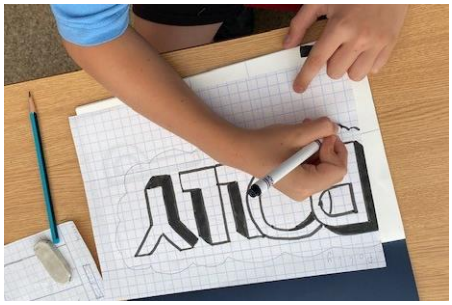
### Autumn

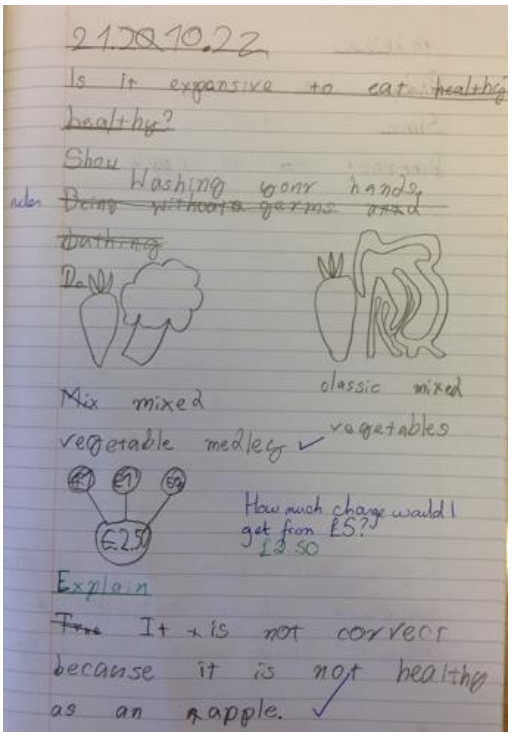
In September, we start the Mastery curriculum for each year group. We have continued with a mental maths element to the beginning of each lesson. Every child started the year with their book from the previous year (to ensure children were challenged) and a new target card with age appropriate targets for the year group. Over the course of the year, children will be given class and personalised targets, for example- add a two-digit number to a one-digit number. (see an example of a target card in images below)
Lessons have the following format: Mental Maths (5 minutes), Number Crunch (10-15 minutes, focusing on Arithmetic skills), Show (reinforcing a concept from the day before), Learn (the main teaching part, which gets progressively more difficult), Do (independent activities to be undertaken by the children), Next step (a green pen challenge or addressing a whole class error). We continue to embed how to scaffold, support and challenge children in Maths lessons. We use the Education Endowment Fund research to decide how to best support and challenge children.
We have generic maths working walls across Darlinghurst academy which include the Maths concept of the week, Key vocabulary, Top tips and Times table champions for each year group. These are changed at least weekly or updated as each new mathematical concept is taught. There are weekly timetable rock star celebration assemblies in Years 3 and 4 to encourage learning the times tables.
We are now encouraging Year 4 children and above to write in columns in their maths books in order to ensure work is well presented. We are also offering more cross curricular maths opportunities during other lessons. Year 6 in Science recorded temperatures in the form of a table to work out the best insulator for a space suit. They also used

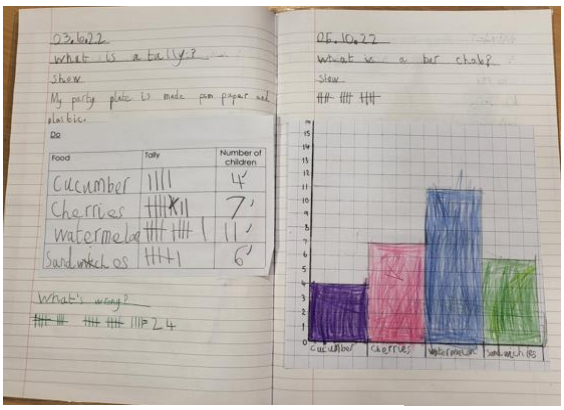
rationing books to work out the food coupon needed for the typical food ration for a child during and after the World War 2. They also ordered events chronologically on a history time line. In Year 2 they produced a bar chart and table on whether party foods can be healthy. In Year 3 they had to calculate a cheap and healthy meal. In an art lesson they used a ruler and counted squares to produced illuminated letters.

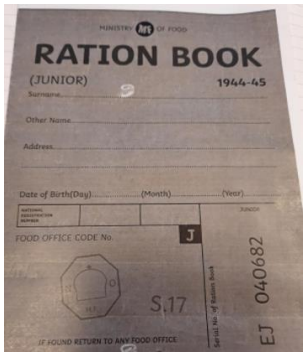
**Examples of cross curricular maths Autumn term 2022 ( see below)**

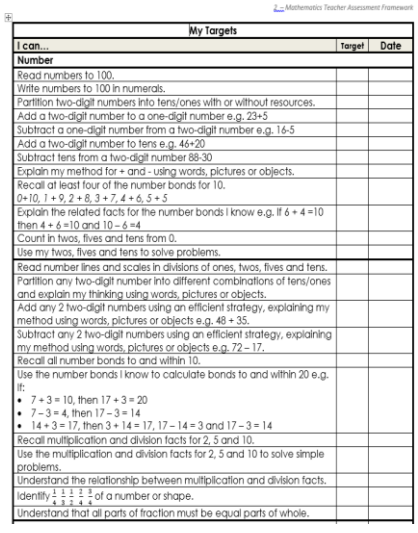


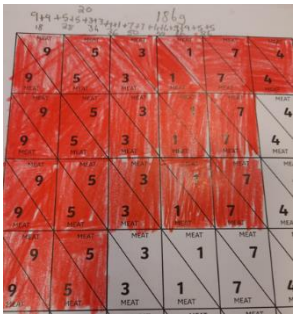


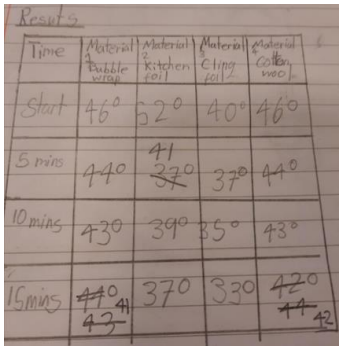


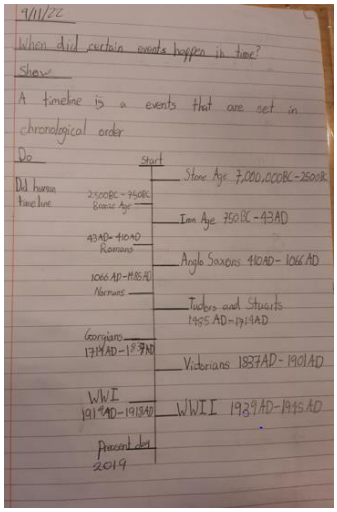





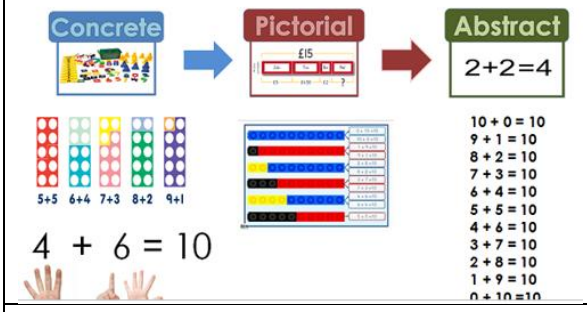



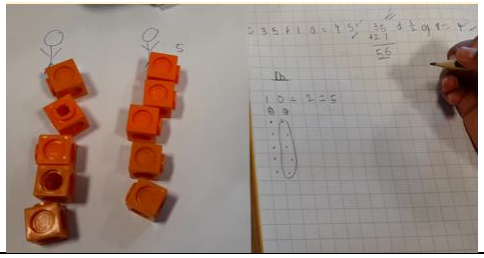

## Spring 2022

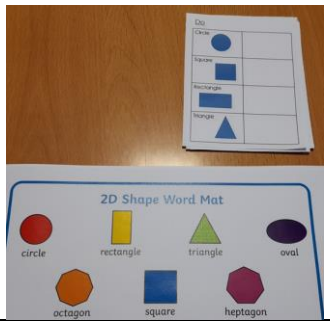
During this term we have focused on adapting our maths curriculum to suit our children's needs. We have continued with further training for teachers on providing scaffold so that all children can access the work. Mrs Dunne has delivered training on how to use mastery effectively. Staff are now embedding mental maths activities into their daily teaching. We have also discussed maths oracy and the importance of children speaking in full sentences and using the correct mathematical vocabulary in maths. This is displayed on the maths working wall.

There are increased opportunities for children to use concrete materials to understand new concepts and the CPA (Concrete/Pictorial/ Abstract) approach is embedded.

Children in the Early Years benefit from a daily maths session where they are working hard to recognise and write numbers. They use an adding machine and count together and are starting to use the mathematical vocabulary they need. They buy and sell ice-creams in their role play shop outdoors. The children continue to work towards their targets and to learn their number bonds and times tables, this is a continued focus.



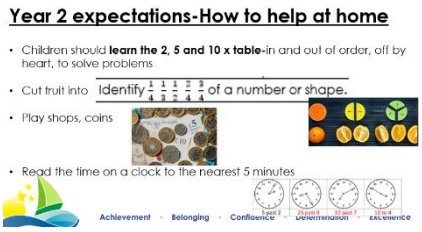



## Summer 2022

We have held a Key stage 2 'Supporting Maths at Home' on Teams just after the Easter holidays and a Key Stage 1'Supporting Maths at Home' live in school. Both workshops explained how we taught maths at Darlinghurst academy, explaining our approach and lesson structure. Parents also received information on how to support their children at home in a practical and fun way: cooking, telling the time, reading scales, playing board games, to name a few. Target cards were also shared with parents and we highlighted where children could be supported at home. Useful websites were (see below) were discussed with parents, particularly to support learning times tables and number bonds.

Mrs Dunne has delivered a staff meeting 'Pop up' in which staff shared mental maths activities and games they were using and the maths co-ordinator reinforced games that staff could use. The staff also watched examples of teachers teaching mental maths games and the counting stick for times tables and evaluated their usefulness.

Mrs Dunne has also completed pupil interviews with children from Years 1-6. Every child said that they enjoyed maths and specifically enjoyed being challenged. Year 4 have completed a time table check this half term.



## Useful websites

**BBC Bitesize**

BBC Bitesize has Maths lessons for every year group, including fun animated videos to explain concepts and quizzes. Choose your key stage, then year group.

Maths - BBC Bitesize

**BBC Teach**

BBC Teach, some great video stimulus on here for Maths. The maths songs are great ie Super movers for Key Stage 1. There are also counting activities and some great real life maths investigations.

KS1 Maths - BBC Teach

KS2 Maths - BBC Teach

**Hit the Button**

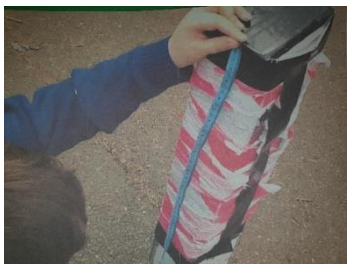
Times tables

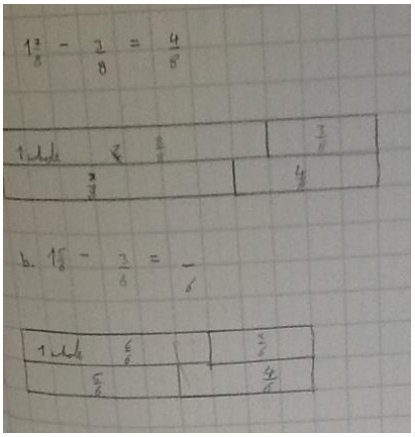
Hit the Button - Quick fire maths practise for 6-11 year olds (topmarks.co.uk)

**Times table Rock stars**

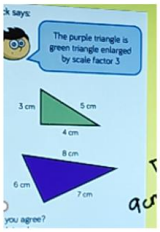
Times Tables Rock Stars (ttrockstars.com) (your child will need their username and password)

## Maths Photo Gallery





### Maths Oracy




Encourage your children to speak in full sentences, using mathematical vocabulary