https://www.timestables.co.uk/games/ – all times tables

https://www.topmarks.co.uk/times-tables/coconut-multiples

https://www.topmarks.co.uk/maths-games/hit-the-button –
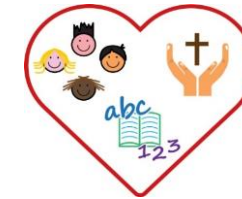
https://www.youtube.com/watch?v=A8AMPutA9F8 – multiples of 50 to 1000 video
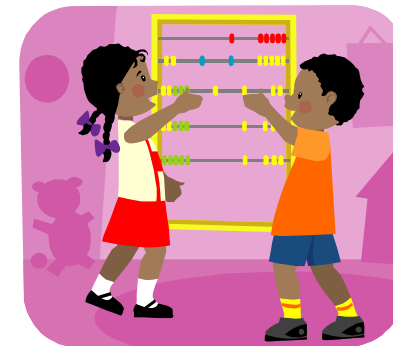
St Matthew's C.E. Primary Academy

Help your child to learn maths facts.
Year 4

Parent's and carer's guide to support children with the 'Learning by Heart' programme
Summer Term

## 'Learning by Heart'

Developing children's knowledge of mathematical facts so that they know them 'by heart' is a valuable tool to support calculation strategies, and also helps to build confidence. Regular practice is needed to secure knowledge and help children instantly recall facts.

We encourage children to think 'Can I do this in my head?' Having a range of number facts at their fingertips really empowers the children and enables them to approach tasks with confidence.

Young children need to work practically using apparatus like toys, small objects, coins, etc, this will help children to check their mental work with real materials.

## Summer Term 1: Know all multiplication and division facts for ALL tables x12 tables.

| 11 x 1 = 11 | 11 ÷ 11 = 1 |
|---|---|
| 11 x 2 = 22 | 22 ÷ 11 = 2 |
| 11 x 3 = 33 | 33 ÷ 11 = 3 |
| 11 x 4 = 44 | 44 ÷ 11 = 4 |
| 11 x 5 = 55 | 55 ÷ 11 = 5 |
| 11 x 6 = 66 | 66 ÷ 11 = 6 |
| 11 x 7 = 77 | 77 ÷ 11 = 7 |
| 11 x 8 = 88 | 88 ÷ 11 = 8 |
| 11 x 9 = 99 | 99 ÷ 11 = 9 |
| 11 x 10 = 110 | 110 ÷ 11 = 10 |
| 11 x 11 = 121 | 121 ÷ 11 = 11 |
| 11 x 12 = 132 | 132 ÷ 11 = 12 |

THE SEVEN STAGES FOR LEARNING TIMES TABLES AND THEIR CORRESPONDING DIVISION FACTS:

- Know the times table forwards, in order.
- Know the times tables backwards, in order.
- Know the times tables in random order.
- Know the division facts forwards, in order.
- Know the division facts backwards, in order.
- Know the division facts in random order.
- Know the times tables and division facts in random order.

Activities:

- Using dried beans, buttons, pegs, dried pasta or something similar, show how times tables are made of groups, 1 group of 4 (1 x 4), 2 groups of 4 (2 x 4), 3 groups of 4 (3 x 4), etc.

Finding fact families (inverse and commutativity). When writing a multiplication, the numbers being multiplied can be written in any order. So if a child knows that 2 × 8 = 16, they also know that 8 × 2 = 16 and if a child knows that 16 ÷ 2 = 8 and they also know that 16 ÷ 8 = 2.

- Cut some card into 24 identical pieces and write out all the questions for one times table or set of related division facts on 12 of the cards. Then write the answers on the other 12 cards. Spread them out on a table and see if your child can match them all up correctly.

Vocabulary

times    multiply    multiple of    lots of    groups of    divided by

shared    multiplied by    shared    product    factor    square number

## Summer Term 1: Know all pairs of multiples of 50 that total 1000.

| | | |
|---|---|---|
| 50 + 950 = 1000 | 100 + 900 = 1000 | 150 + 850 = 1000 |
| 200 + 800 = 1000 | 250 + 750 = 1000 | 300 + 700 = 1000 |
| 350 + 650 = 1000 | 400 + 600 = 1000 | 450 + 550 = 1000 |
| 500 + 500 = 1000 | 550 + 450 = 1000 | 600 + 400 = 1000 |
| 650 + 350 = 1000 | 700 + 300 = 1000 | 750 + 250 = 1000 |
| 800 + 200 = 1000 | 850 + 150 = 1000 | 900 + 100 = 1000 |
| 950 + 50 = 1000 | | |

Practical ideas to help your child:

- Encourage your child to quickly identify multiples of 50 as numbers which have either 00 or 50 in the tens and ones columns.

- Encourage links with number bonds to 100 e.g. 5 + 95 = 100 so 50 + 950 = 1000, etc

- Help your child to be logical and work through the numbers in a sequence as this helps speed and accuracy. Once they are able to list the facts, then try quick recall of facts by giving them a number and they have to think of its partner.
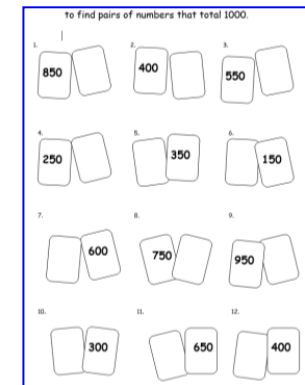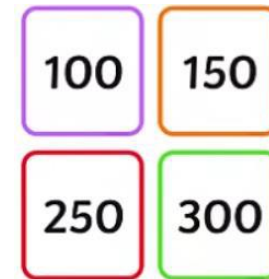
- Play games with number cards:

Vocabulary

multiples    total    pattern ends in 0    50s,    100s    increase by 50