

## **Learning multiplication tables and linked division facts**

### **Key Learning**

The expectation in the New National Curriculum for Mathematics is that all children will know their times tables up to  $12 \times 12$  by the end of Y4.

- By the end of Y2 they should be fluent with their 2, 5 and 10 times tables, including division facts
- By the end of Y3 they should have mastered their 3, 4 and 8 times tables.
- By the end of Y4 they should have mastered their 6, 7, 9, 11 and 12 times tables, including division facts

This marks a significant increase in expectation from the previous National Curriculum for mathematics.

We are working hard in school to help the children rise to these heightened expectations but they can only learn one table at a time and children learn them at different speeds. **Each child has a times table target and that target will change as they progress through the year.**

I am sending home this booklet to help parents to help their children practise too. Chanting tables is useful but it is not enough on its own as children need to know the tables out of order.

Many of you will have posters, books and CDs at home. There are also computer programs and apps that the children can use. The Sumdog program which we encourage children to use at home is also a great way of practising.

Thank you for your continued help and support. We really value you working in partnership with us to ensure your children are successful.

Sue Bundy

Deputy Headteacher / Mathematics Coordinator

## **What could you do ?**

### **Find out your child's current times table target**

Chant the table in order

Chant the table backwards

Look for any patterns or links between tables e.g. between 2s and 4s, between 3s and 6s

Ask the children the calculations from the times table muddled up

Give the children all the answers to the times table muddled up. What are the questions?

Make a set of cards with the calculations on and a separate set with the answers. Match them up.

Make a set of cards with the division facts on and a separate set with the answers. Match them up.

Take turns with your child to throw 2 dice. Multiply the two numbers and call out the answer. If you are right you win a button. The first to 10 buttons wins.

Get a blank dice and put 7- 12 on it. Throw this new dice with one of the originals. This will make the game more challenging.

Use a pack of cards with the picture cards removed. The ace can represent 1. Shuffle the cards. Take turns to pull out 2 cards and multiply the numbers on them together- the answer is your score. Keep a record of your score. Repeat this five times, adding up your scores as you go. The person with the highest score wins.

If your child is still learning the earlier tables you might want to only use the cards marked ace, 2, 3, 4, 5 and 10. The other cards could be added in one at a time later as they move through the tables.

Pick a 2 digit number. How many multiplication and division facts can you think of that involve this number? Take turns to write a fact, e.g. if the number was 24 you could have

$1 \times 24 = 24$ ,  $2 \times 12 = 24$ ,  $3 \times 8 = 24$ ,  $4 \times 6 = 24$ ,  $6 \times 4 = 24$ ,  $8 \times 3 = 24$ ,  
 $12 \times 2 = 24$ ,  $24 \times 1 = 24$

$24 \div 1 = 24$ ,  $24 \div 24 = 1$ ,  $24 \div 2 = 12$ ,  $24 \div 12 = 2$  etc.

Challenge: Given the number 30, how many  $\times$  and  $\div$  facts can you write in 3 minutes?

On the next day you can try to beat your record.

Make sure you know your child's 'Sumdog' login details so they can practise independently at home.

## **Types of questions you could ask**

### **(Change the calculations to fit the child's target times table)**

- What is  $6 \times 4$ ?
- Divide 20 by 4.
- Is 28 divisible by 4? How do you know?
- Is 12 a multiple of 4? How did you decide?
- If  $5 \times 4 = 20$  give me a division fact to go with it.
- If  $8 \times 4 = 32$ , give me another multiplication fact and 2 division facts ( $4 \times 8 = 32$ ,  $32 \div 4 = 8$ ,  $32 \div 8 = 4$ )
- If  $3 \times 4 = 12$  what is  $30 \times 4$ ?
- If I divide 27 by 5, what is the remainder?
- If Mr George sorts 20 children into groups of 4, how many groups will he have?
- If 4 children share 16 books, how many will they have each?

**Check that your child recognises mathematical words and phrases linked to multiplication and division..**

<b>Multiplication</b>	<b>Division</b>
multiply multiple times sets of groups of	divide share remainder equal groups of divisible
Once the children have mastered all their times tables they will need to understand and use the term 'product'.	Once the children have mastered all their times tables they will need to understand and use the term 'factor'.

