## **Teaching times times tables facts first**

Children need to understand and know these facts about how times tables work before they start learning them.

## 1. Repeated addition

4 x 5 is the same as 5 + 5 + 5 + 5.

## 2. Multiplication is commutative

4 x 5 is the same as 5 x 4.

## 3. Multiplication is the inverse of division

 $20 \div 5 = 4$  can be worked out because  $5 \times 4 = 20$ .

## 4. Number families

4 x 5 = 20, 5 x 4 = 20, 20 ÷ 5 = 4, 20 ÷ 4 = 5

# 1,2,3... Counting is the key to times tables practice in KS1 and KS2

Counting will start before beginning to develop understanding and reasoning but will continue long after, until all times tables can be counted through sequentially at speed.

## Start by counting concrete items

Ensure counting in 2s begins with concrete manipulatives such as shoes, socks, hands etc before moving on to using counters or other manipulatives. Whenever starting children counting in a new amount, such as counting in 8s, children should be given the opportunity to see visually what that looks like to reinforce 4 x 8 looks quite big compared to 4 x 6. They can then look for patterns such as 4 x 8 is the same as 4 x 4, doubled.

## Don't be afraid of drilling the times tables

Some drilling is inevitable when developing counting, initially alongside concrete and pictorial manipulatives but quickly moving to chanting '3 times 7 is 21, 4 times 7 is 28' etc.

## How to teach instant recall across all times tables

Not all children will need the suggested structure below, however it will help those who struggle to convert quick counting into instantly recallable facts.

The example is for the 6 times table but the principle can be applied to any.

## **Teaching 6 Times Table step by step**

- 1. Fire just 1 x 6, 2 x 6, 5 x 6, 10 x 6 at them first. This will build up on their most secure existing table facts
- 2. Add in 3 x 6, 4 x 6 when step 1 is frequently recalled correctly and instantly
- 3. Build up with 6 x 6, 7 x 6, 8 x 6
- 4. When looking at  $9 \times 6$ ,  $11 \times 6$  and  $12 \times 6$ , children should:
- 5. Look at finding 10 x 6 and adjust

- 6. Be guided to remember what the last 2 numbers were in the sequence they learnt (66, 72)
- 7. Add in related division facts. For some children, this step can be integrated from step 1 onwards. For others, they will need time to develop recall of multiplication facts first before adding this in.

When giving children quick fire questions to recall, particularly in the early stages of each multiplication table, ensure they are given the opportunity to see the calculation rather than just hear it orally.

Children should be encouraged to quickly count using their fingers to assist them with prompt questions such as '6 x 7, we did that a minute ago, can you remember what it was?

## How to learn times tables at home: Fun ways to practise multiplication

#### **Times tables at-home activity 1: Foodiplication**

Use small food items like raisins and grapes to up the stakes when practising grouping and arrays.

Counters can lose their novelty after a while, so spicing things up will certainly add to the fun!

Lay out a group of raisins (or whatever you prefer) and ask your child to group them into twos and threes before they eat them all.

This is a simple but effective way to encourage your child to think about the multiplication work they are doing, and they get the benefit of having an immediate tasty treat at the end!

#### Times tables at-home activity 2: Silly number sentences

The best way to prepare for multiplication in number sentences is to say number sentences out loud so they get used to the vocabulary. Read the following phrases out loud with your child and see if they can repeat them back to you. To ensure that your child is engaged with the game, get them to do a silly voice when they repeat each number sentence back to you.

An example game could look like:

Say  $2 \times 3 = 6$  in a **lion's** voice.

Say  $6 \div 2 = 3$  in **grandad's** voice.

Say  $6 \div 3 = 2$  in your **teacher's** voice.

Say 2 x 4 = 8 in your **most silly** voice.

Say  $8 \div 4 = 2$  in **my** voice!

Say  $8 \div 2 = 4$  in a **dog's** voice.

#### Introducing Fizz Buzz the game!

This popular classroom game can be easily adapted for home and is a great way to tackle times tables in a fun way!

#### How to play:

- 1. Choose the times table you would like to practise.
- 2. Take turns with your child take turns to count from 1 (or you can get the whole family in on this one).
- 3. When you get to a multiple in your chosen times table, you must say "FIZZ!" instead of the number.
- 4. A way you can make it harder is to add an extra rule. If any number contains the same number you chose for the times table, you have to say BUZZ!

Have a look at this written example:

#### Fizz Buzz for the 3 times table

1, 2, FIZZ, 4, 5, FIZZ, 7, 8, FIZZ, 10, 11, FIZZ, BUZZ

#### Speed tables game!

#### What's the game about?

Recalling times tables as quickly as possible, which is a handy thing to be able to do when the exams come around!

#### How to play:

- 1. Take it in turns to call out the answers to your 2, 5 and 10 times tables as fast as you can.
- 2. Make sure you time each other.
- 3. How fast can you get through the 2s, 5s, and 10s?
- 4. Turn it into a weekly Sunday afternoon competition and keep track of the results with a leaderboard. Who will be the reigning times tables champion?!

#### Car modelling game

#### What's the game about?

Parked cars make great bar models on the go and are a fun and easy way to practise this useful maths method!

#### How to play:

- 1. Find a line of parked cars and count them together.
- 2. How many cars would there be on two streets?
- 3. How about three?
- 4. Go up to the times table you want to practise the most, adding a new street each time to increase the times table.