Multiplication and Division: Key Skill 11

YEAR 3

Write number sentences using the symbols x (multiply), ÷ (divide) and = (equals)

A **number sentence** is an equation. It uses numbers and symbols to describe a maths problem.

Being able to read and write symbols helps children to create their own maths questions and understand how to use symbols in the right way.

Play a game of memory, go fish or old maid using maths symbols as the cards.

Play a game of celebrity head where each person has a number sentence on their head and they have to guess what it says. The other player can only answer yes or no to questions. The first person to guess their number sentence correctly wins! Solve your number sentences for bonus points.

Roll 2 dice and use the numbers rolled to create multiplication and division number sentences. Work together to solve them with multiplication. Attempt to solve them with division, or work together to change the number sentence so that it can be solved with whole numbers as the answer.

WEB LINKS go to:

Notes: DIY celebrity head game

Multiplication and Division: Key Skill 12

YEAR 3

Link multiplication and division using arrays

An **array** is a rectangle divided into rows and columns.

Multiplication is a process of repeatedly adding the same number a given amount of times. Multiply, product of, times and lots of all mean the same thing.

Division is to share into equal groups or parts. Divide, split, quotient, distribute, share equally and separate all mean the same thing.

Inverse operations are functions that are the opposite of each other. This is a way of checking if answers are correct.

Addition and subtraction are inverse operations. Multiplication and division are inverse operations.

Arrays create a picture to help children understand multiplication and division. Learning to create and use arrays helps children to learn how to skip count to multiply or divide.

Children often begin by counting each object in the array and then learn to skip count the rows to find the answer. It is helpful to show that you can count from the rows or the columns of the rectangle e.g. in 4 x 2 you can count 4 rows twice (4 + 4) or 2 columns four times (2 + 2 + 2 + 2).

Knowing that multiplication and division questions are opposites helps to make learning division easier.

Make arrays and work together to create division and multiplication questions from them. Write down the possible questions could be made from that array e.g. An array of 12 (3 rows of 4) questions could be:

12 ÷ 3 = 4 12 ÷ 4 = 3 3 x 4 = 12 4 x 3 = 12 12 = 3 x 4

Play a game where you make an array and quickly flash the entire array. Then cover all the pieces except for 1 row and 1 column with a piece of paper. Work together to work out the total of the array. Challenge yourselves to write them as division and multiplication questions.

WEB LINKS go to:

Notes: Arrays

Notes: Division using arrays

Video: Repeated addition

Video: Repeated addition and array

Game: The array

Game: Pobble arrays