

Tetherdown Primary School  
Mental Maths Activity Workshop  
23rd September 2014

Please find below a description of some of the activities we introduced to you during the workshop. Website links are also included, for you to look at with your child at home.

Number collector – think of a secret rule. Collect numbers from 1-100. Write down the numbers that do and do not fit the secret rule. Can children guess the rule?

Closest to 1000—roll dice 9 times, place digits rolled in hundreds, tens and units columns. Total numbers. Person who is closest to 1000 wins.

Sum, product or difference— roll two die and say, 'I would like to find the sum/product/difference of the two numbers'. Cross off number calculated. To win, cross off 4 numbers in a row.

Activities at tables

**Is it possible?**

**Pairs that total 100/1000**

**Odd one out**

Other mental maths activities you could try:

**Missing number** - Count forwards or backwards in a sequence, missing out one of the numbers, e.g. 50, 40, 20, 10. Can your child spot the missing number?

**Number hangman** - Exactly the same as traditional letter hangman but using a number sequence (4 to 8 numbers) in place of a word. This can be easily adapted to any age group. For younger children select a sequence such as 3, 4, 5, 6, progress to using multiples of numbers, fractions, and decimals etc. Initially clues can be given by providing one number in the sequence of between 4 and 8 numbers.  
e.g. \_\_\_\_ 40 \_\_\_\_ .

**Multiple counting** - Count forwards or backwards in ones from different starting numbers. On a given multiple perform an action e.g. hands on heads, clap. A variation is to not actually say the number, just perform the action. Make more difficult by including two actions, e.g. clap on multiples of 2 and stand up on multiples of 10. Discuss the numbers where two actions were performed.

**Treasure hunt numbers** - Hide numbers for your child to find around the room. When they return with the numbers, ask them to put them in order, e.g. forwards, backwards,

odd / even or find the relationship between them.

**Near or far** - Select three different random digits. Say a statement such as “close to 300”, “less than 200”, “close to quarter of a thousand”. Children then have to rearrange the digits and write down their answer. Discuss who is closest and why. This activity is easily differentiated by using two digit or four digit numbers and/or adjusting the statements you use.

**Perfect partners** - Make sets of cards with different pairs that total 0.1/1/10/100/1000. Play pairs with the numbers.

**Facts bingo** - This game can easily be altered for different ages. Ask your child to select three numbers under 20 to write on a piece of paper. Call out a number and ask your child to cross it out if, for example, they have a number that is half the number you call out, is a multiple of the number you call out or is a prime number. Make 10 statements, if the child still has numbers to cross off, the caller wins if the child crosses off all numbers within the 10 statements, they win.

**Balloons** - Draw 6 balloons or similar and in each one write a number e.g. 2, 3, 4, 6, 12, 24. Give children three minutes to write down as many multiplication and division statements as they can, using only the given numbers. Discuss the fact families i.e. if you know  $6 \times 2 = 12$  then you also know  $2 \times 6 = 12$ ,  $12 \div 6 = 2$  and  $12 \div 2 = 6$ . Remember to include examples with the equals sign in different positions, e.g.  $12 = 2 \times 6$ . Extend with decimals.

**What else do you know?** Write a number sentence ,e.g.  $5 + 2 = 7$ . Ask your child which other facts they can derive from this one, e.g.  $15 + 2 = 17$ ,  $50 + 20 = 70$ ,  $500 + 200 = 700$ .

**Shape in my pocket** - Put a shape in your pocket or a small bag. Children ask questions about that shape such as “Has it got any lines of symmetry?” “Has it got four sides?”, “Is it a regular shape?”. After 5 questions, discuss possible shapes it could be. Reveal the shape and recap its properties.

**Which measure?** - This can be adapted for use with time, weight, capacity or length. Write a selection of units on a piece of paper for your child to choose from e.g. mm, cm, m, Km. Give an example of something to be measured e.g. length of the garden, a pencil, height of the house. Children decide which unit of measurement they would use to measure with. This can be altered to ask the children which piece of measuring equipment they would select to measure with.

**Shape bingo** - Children draw three shapes on a piece of paper. Describe a property of a shape e.g. two lines of symmetry, no straight sides. Cross off a shape if it matches the description.

**Hidden shapes** - Hide a shape behind a piece of card or in a large envelope. Reveal a small part of the shape and discuss shapes it could or couldn't be. Don't always use regular shapes!

**All squeeze in** - Select a container e.g. a jug. Ask children to estimate how many cups of water they think will be needed to fill the jug. Count together. Vary the container e.g. how many cars will fit in the garage?

**Odd one out** - Draw 4 shapes, e.g. square, rectangle, trapezium and circle. Children discuss which shape is the odd one out and why. This activity can also be carried out using numbers instead of shapes.

**Hops to 100** - Write down a start number below 100. Discuss how to reach 100 in two different hops (a hop being one mathematical operation) e.g. start number 15, subtract 5, multiply by 10. Make the task more difficult by introducing other rules; e.g. one of the operations must be division, by increasing the number of hops or by altering the ending number. It is important to discuss the different ways found.

**Mental maths activity website links:**

<http://www.topmarks.co.uk/maths-games/7-11-years/mental-maths>

<http://www.bbc.co.uk/bitesize/ks2/maths/number/>

[http://www.teachingideas.co.uk/maths/contents\\_mentalmaths.htm](http://www.teachingideas.co.uk/maths/contents_mentalmaths.htm)

<http://resources.woodlands-junior.kent.sch.uk/maths/>

<http://www.mathblaster.com/teachers/math-practice/mental-math>

<http://www.mathszone.co.uk/calculating/mental-addition/>