

## Educational Psychology Service

Newsletter – 25.06.20

Supporting children and young people with numeracy and numeracy difficulties

### Introduction

This newsletter aims to provide ideas about how parents can support children and young people with numeracy and numeracy difficulties at home and help them to enjoy and feel good about what they are learning.

Numeracy is the ability to use number and solve problems in real life. We need numeracy to make sense of numbers, time, patterns and shapes for activities like cooking, reading instructions and even playing sport.

Children with numeracy difficulties may find it hard to understand the size or quantity of a number and the relationships of numbers to one another. They may also experience feelings of anxiety related to maths. This newsletter also aims to provide strategies to support children who may be experiencing numeracy difficulties.

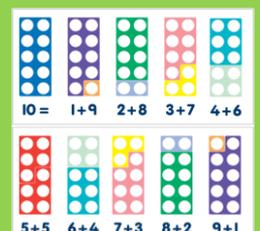
### How can I make maths fun?

- **Dice board games:** Any game which involves rolling a dice and moving that number of spaces, e.g. Snakes and Ladders, Ludo or any number track game.
- **Games that involve counting/chanting:** Use different voices, speeds and volumes to recite numbers e.g. high pitched, animal voice, sing-song voice, whispering, shouting, etc.
- **Subtraction bowling:** Start with ten and take away however many toilet paper rolls you knock down.
- **Play shop:** Make price tags for your child's toys and have them, choose, scan and count out the right number of pennies to 'buy' the item.
- **Number thief:** Place the cards out Ace to 10. Ask your child to cover their eyes and remove a card. Let your child look and tell you the missing number. For younger children you could create a character that steals the cards and say "Let's count together" and 'find' the missing card.



### How can I help? (numeracy difficulties)

- **Try to appear interested and involved, model to child that it is ok to have to work something out and take your time to understand it.**
- **Help children understand the words:** Help children understand mathematical language (e.g. what are the other words for add/subtract?). Use the language of more and less etc. in everyday life.
- **Break the task down into small chunks:** If children need to work out  $50 - 14$  they could first take away the 10 and then take away the 4.
- **Work with concrete materials** e.g. cubes/ beads/ dried pasta/ Lego can all be helpful for counting.
- **Encourage them to check their work:** Do they get the same answer using a calculator/ what about if they make a clever guess to their calculation.
- **Help children understand how numbers relate to each other:** Practice counting on in different quantities from differing start points both forwards and backwards.
- **Use different experiences of counting** e.g. out loud, things you can touch, things you can't touch, on a number line, etc.
- **Practice recognising differing quantities presented in the form of arrangements of dots** e.g. those on dominoes and dice.
- **Get your child to explain how they have come to an answer, whether it is right or wrong.**
- **Encourage working out which shows thought processes rather than just answers.**
- **Try to encourage your child to 'think out loud':** this can help you to spot any misunderstandings and encourage them to slow down.
- **Use visuals to help your child recall information when needed** e.g. multiplication grids and number bonds to ten ( $3+7$ ,  $2+8$ ,  $4+6$ , etc.).



## How we talk about maths and numeracy is key

We often hear people say negative things about maths and numeracy. Researchers have found that how parents/carers talk to their child about numeracy and maths affects how well their children do.

- Try to speak positively about numeracy.
- Praise their effort rather than success, e.g. 'Well done, you put so much effort into that' (rather than 'well done you got it right').
- Try to help your child see that they can get better with practice and hard work and their abilities and talents are not fixed. They can always improve.

Helpful things to say 	Unhelpful things to say 
"You can always improve, keep trying"	"I can't do maths either"
"You're on the right track"	"Maths is boring"
"You are learning, you're not meant to know it straight away that's what learning is'.	"No one in our family is any good at maths"
"You don't understand it yet, you will do"	"You won't use it anyway"

### Helpful websites

- National Numeracy family maths toolkit: <https://www.nationalnumeracy.org.uk/your-childs-maths>
- [www.bbc.co.uk/bitesize](http://www.bbc.co.uk/bitesize)
- Free numeracy-based computer game: [www.sumdog.com](http://www.sumdog.com)
- Includes a section of games for numeracy: <https://fiveminutemum.com/>
- Numeracy games and activities: <http://bedtimemath.org/>

## Help them to understand

We often find it hard to remember things that we don't understand (and if we only learn 'rules') and it makes it harder to build on our learning. Try to teach for understanding. This website (<https://www.ncetm.org.uk/resources/48209>) has lots of videos on explaining numeracy topics to children (often the simplest bits of numeracy are the hardest to teach!)

Encourage children and young people to use their fingers, objects, visuals or calculators to help them. Reassure them that it's ok to do this at any age and adults do this too!

Try to avoid just reciting timetables (e.g. 2,4,6,8 etc.) with your child and try to promote understanding. Use visuals at the same time (e.g. blocks/ Lego) as saying the full timetables (e.g. 2 x 2 is 4 or 2 lots of 2 is 4).

### Ideas to teach numeracy in real life

Younger children:

- Measure the height of everybody in your house. Use the language 'bigger' and 'smaller'.
- Build or make patterns with blocks or Lego.
- Count numbers on a journey e.g. cars of a certain colour.
- Use songs and rhymes e.g. 'Ten Green Bottles', 'There Were Ten in the Bed', 'Five Current Buns in the Baker's Shop', etc.
- Count on ones, twos, fives or tens when doing rhythmic activities e.g. swings, jumps throwing a ball, etc.
- Play games in which you direct children to a toy, e.g. 4 steps forward, 2 steps to the right, make a ¼ turn

For older children and young people:

- Divide food (e.g. pizza) using the language of fractions (halves/ quarters), decimals and percentages.
- Teach them about bills and finances, for resources see: <https://natwest.mymoneysense.com/home/> (ages 5-18)
- Help them to read a bus/ train timetable when on a journey. Calculate how long the journey will take.
- In the supermarket or when online shopping help your child work out which product is the best value.
- Bake a cake/ cook and ask your child to measure out all of the ingredients.

Educational Psychology Service  
Schools ICT  
Smithills Dean Road  
Bolton  
BL1 6JT

Telephone: 01204 338612



### Need support?

Our COVID 19 community response line is now open offering vital help to people who need food or essential items

**01204 337221**

8.30am – 5.30pm Mon – Fri and Sat 9am – 1.30pm



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