

CALT – ADVICE SHEETS

Maths



Top tips for children with numeracy difficulties

- **Use concrete manipulative materials.**
Allow your child plenty of time and experience manipulating concrete materials before anything is written down i.e. Dienes or other Base 10 materials, counters, multi-link etc. Diagrams and sketches can support the transition between concrete and abstract work.
- **Dice and Dominoes.**
Play with dice and dominoes to improve instant recognition of spot patterns. Play any game that incorporates the use of dice so that they recognise the pattern instantly rather than relying on counting the spots one by one after each throw. Point out similarities/differences when playing dominoes. Encourage them to look for patterns inside patterns i.e. inside the traditional spot pattern for 6 you can see two 3's or three 2's or 4 and 2.
- **Beware the counting trap.**
This is where a child solves problems by counting up or down in ones. When playing games encourage the child to compose or decompose small quantities in chunks.
- **Games not worksheets.**
Games encourage children to revisit important concepts regularly, so increasing the automaticity i.e. adding 2 dice together, whilst maintaining a high level of interest and enjoyment.
- **Counting up and back.**
Don't always start from the same place i.e. 0 or 10 i.e. count from 13 to 48, 16 down to 3. Encourage children to count beyond 100 and pay special attention to the difficult boundaries i.e. 20, 30, 40 etc.
- **Step by step.**
Break each learning task down into the smallest possible steps. Repeat and rehearse each step as necessary before moving to the next step.
- **Visual pictures.**
Encourage your child to use concrete materials as a basis for creating pictures in the mind. Sketches and diagrams should also be seen as a route to learning or practicing visualisation techniques.

- **Mind your language.**
Explain mathematical terms carefully and encourage your child to articulate their thinking aloud as they work through any mathematical task.
- **Understanding Memory difficulties can have a severe impact on mathematical performance.**
Minimise the number of facts that need to be committed to memory. Instead of relying on rote learning teach how they can use pattern, logic and reasoning to work out new/next numbers Restrict the number of strategies they need to master. Limit them to key strategies that have the widest applications.

Make Maths fun



- **Shopping** - involve younger children in counting out items, talk about one more, one less, bigger smaller etc. Older children can practice money management, and comparing discounts are a great opportunity for some quite complex mental maths.



- **Cooking** - always a mathematician's favourite! Perfect for understanding and practising number, measuring, size, shape and time. Fractions can also be introduced in sharing out portions.



- **Gardening** - most children love to help out in the garden so it makes a fun and memorable learning opportunity. Counting, measuring, reading temperature, sorting are all easy mathematical activities for younger children. Older children may enjoy planning a gardening project - introducing scale, evenly spacing out seeds, checking temperatures and measuring plants as they grow.



Playing fun games with your child
is a great way to develop their mental maths skills



Here are just a few ideas

- Count forwards/backwards in 1s, 2s, 5s, 10s, etc as you walk up/down the stairs, while throwing/kicking/bouncing a ball, bouncing on a trampoline, skipping etc. Remember to start at different numbers!
- Roll one die – what is the number? What is one more/one less?
- Roll two dice, add/subtract the numbers. What is one more/one less than this number?
- Number Bonds to 10 Bowling – set up 10 skittles/milk cartons/yogurt pots. Roll a ball – can you count how many you knocked down? How many more do you need to knock down?
- Number bonds to 10 – pairs/snap – make number cards with numbers 0-10 (or use playing/UNO cards) and play pairs/snap with numbers that add together to make 10.
- Jenga – write addition/subtraction sums on Jenga bricks – when you pull out a brick you must answer the sum or write numbers on Jenga bricks – when you pull out a brick you must say what number you would add to that to make 10.

Useful websites:

<https://www.bbc.co.uk/bitesize/subjects/z6vg9j6>

<https://www.mathsisfun.com/>

<https://www.primaryresources.co.uk/maths/maths.htm>

<https://nrich.maths.org/parents>

<https://mathsframe.co.uk/en/resources/category/22/most-popular>

<https://thirdspacelearning.com/blog/fun-maths-games-activities-for-kids/>

