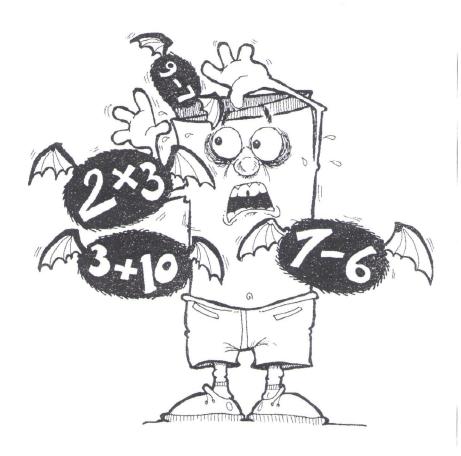
# Dyscalculia



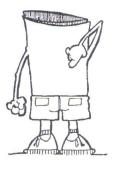
An introductory information leaflet for parents and teachers

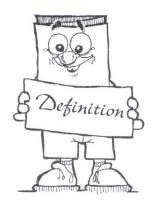
## Introduction

This leaflet is intended to provide a very basic introduction to the condition known as Dyscalculia for Parents and Teachers.

It offers a simple definition, some information which will help towards developing a clearer understanding of the condition, and some helpful strategies for supporting children who suffer from Dyscalculia.

Finally, it provides some points of contact for those who are seeking further information.





Dyscalculia is a specific learning difficulty in mathematics.

The word (sometimes spelt 'dyscalcula') means having difficulty performing maths calculations.

Like dyslexia, dyscalculia can be the result of a visual perceptual deficit.

There is no single set of signs that characterises all people with dyscalculia and there is no one cause.

## Towards an understanding

## Visual Processing Weakness

This appears to be the most common cause of difficulty in maths. To be successful in maths you need to be able to visualise numbers and maths situations. When a person's visual processing weakness is the cause of maths difficulties, spelling and handwriting are often also difficult areas.

## Sequencing Problems

Students who have difficulty sequencing or organising detailed information often have problems remembering specific facts and formulas necessary for completing maths calculations. If this is the underlying cause of a student's maths difficulties, there is often also associated difficulties in other detailed learning areas (including reading, decoding, spelling, and anything which requires detailed memorisation). Sequencing problems are also frequently seen in people with either dyslexia or dysgraphia.

#### Maths Phobia

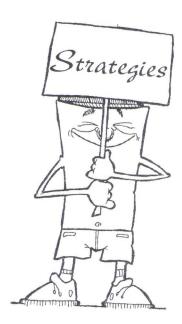
Some students develop a fear or 'phobia' of maths either because of negative experiences in their past, or lack of self confidence. Sometimes maths phobia can cause as much difficulty as a learning disability.

People with dyscalculia all have difficulty with the following:

- understanding the signs +, -, x and  $\div$
- adding and subtracting numbers
- the words: plus, add, subtract, divide
- reversing numbers (e.g. writing 15 for 51)
- mental arithmetic
- times tables
- telling the time
- following directions



## Strategies to support learning



- Teach the child to visualise maths problems.
   Draw a picture to help understand the problem.
- Take extra time to look at any visual information that may be provided (picture, chart, graph etc.).
- Tell the child to read the problem out loud (or read the problem for him/her and insist he/she listens very carefully). This will allow a child to use auditory skills (which may be a strength).

- Try to provide a real life situation that would involve this type of problem.
- Do maths problems on graph paper in order to keep the numbers in line.
- Make sure worksheets are uncluttered so that the child is not overwhelmed by too much visual information.
- Spend extra time helping the child to memorise maths facts. Use repetition, rhyme or music to help the child memorise.

A pupil with a dyscalculia type difficulty may be allowed extra time to complete all class tests. He or she may also be allowed the use of a calculator for all examinations, although this will lead to it being noted on any certificates gained.

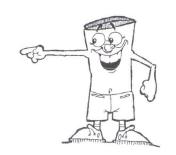
Pupils may also qualify for these special arrangements for all external examinations.

#### **Further information**

## The Dyslexia Institute

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