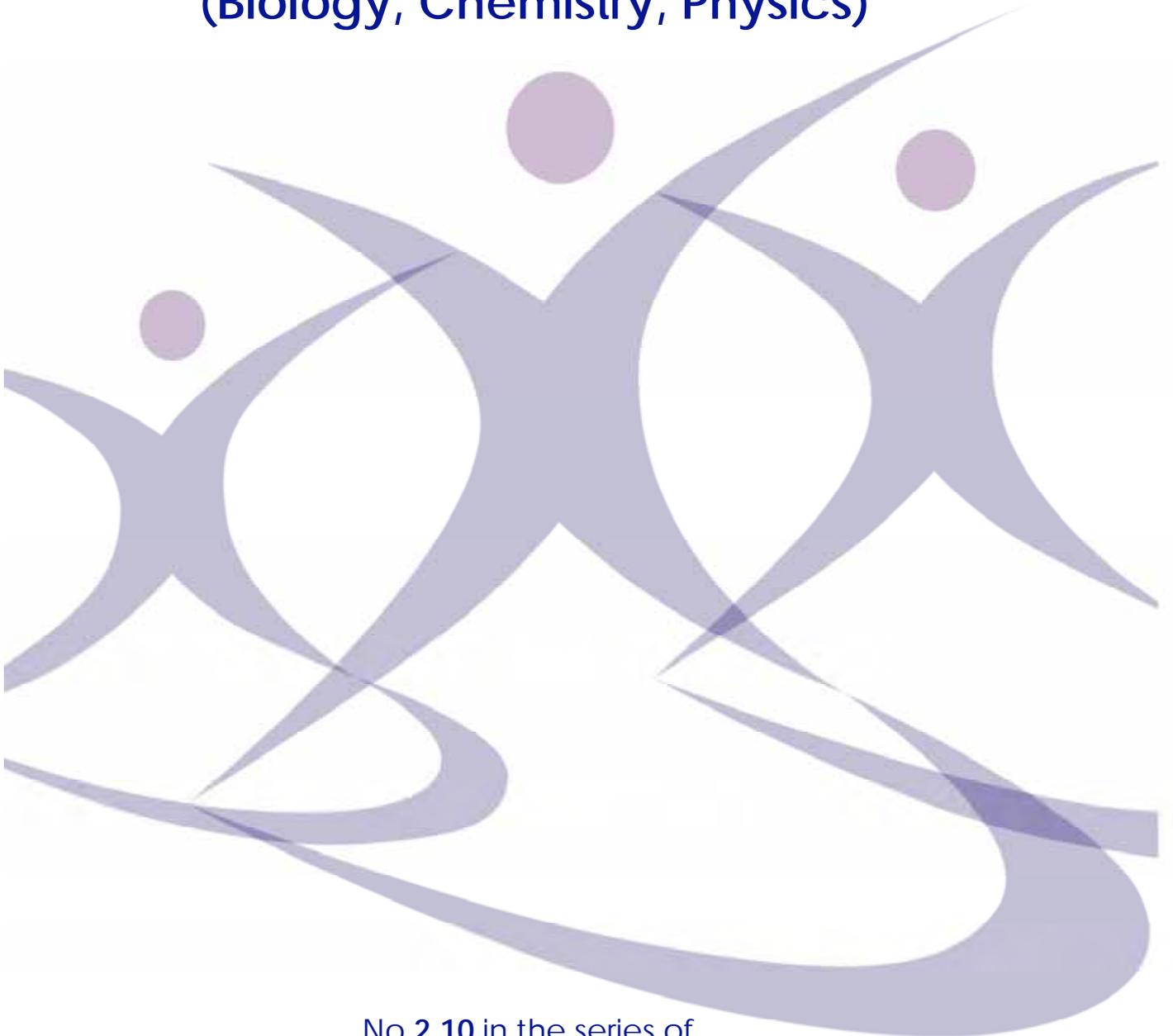




Dyslexia Scotland

**Dyslexia and Science subjects
(Biology, Chemistry, Physics)**



No **2.10** in the series of
Supporting Dyslexic Pupils in the Secondary Curriculum
By Moira Thomson

Supporting Dyslexic Pupils in the Secondary Curriculum

by Moira Thomson

DYSLEXIA AND SCIENCE SUBJECTS (Biology, Chemistry, Physics)

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Supporting Dyslexic Pupils in the Secondary Curriculum

by Moira Thomson

Complete set comprises 18 booklets and a CD of downloadable material

(see inside back cover for full details of CD contents)

Foreword by Dr. Gavin Reid, a senior lecturer in the Department of Educational Studies, Moray House School of Education, University of Edinburgh. An experienced teacher, educational psychologist, university lecturer, researcher and author, he has made over 600 conference and seminar presentations in more than 35 countries and has authored, co-authored and edited fifteen books for teachers and parents.

1.0 Dyslexia: Secondary Teachers' Guides

- 1.1. Identification and Assessment of Dyslexia at Secondary School
- 1.2. Dyslexia and the Underpinning Skills for the Secondary Curriculum
- 1.3. Classroom Management of Dyslexia at Secondary School
- 1.4. Information for the Secondary Support for Learning Team
- 1.5. Supporting Parents of Secondary School Pupils with Dyslexia
- 1.6. Using ICT to Support Dyslexic Pupils in the Secondary Curriculum
- 1.7. Dyslexia and Examinations

2.0 Subject Teachers' Guides

- 2.1. Dyslexia and Art, Craft & Design
- 2.2. Dyslexia and Drama (Performing Arts)
- 2.3. Dyslexia and English (Media Studies)
- 2.4. Dyslexia and Home Economics (Health & Food Technology)
- 2.5. Dyslexia and ICT subjects (Computing Studies, Business Education, Enterprise)
- 2.6. Dyslexia and Mathematics
- 2.7. Dyslexia and Modern Foreign Languages
- 2.8. Dyslexia and Music
- 2.9. Dyslexia and Physical Education (Outdoor Education, Sports, Games, Dance)
- 2.10. Dyslexia and Science subjects (Biology, Chemistry, Physics)
- 2.11. Dyslexia and Social subjects (Geography, History, Modern Studies, Philosophy, Religious Studies)

ALL information contained in the booklets and the CD can be downloaded free of charge from the Dyslexia Scotland website – www.supportingdyslexicpupils.org.uk

Extra copies of individual booklets or complete sets are available from

Dyslexia Scotland, Stirling Business Centre, Wellgreen, Stirling, FK8 2DZ

Email: info@supportingdyslexicpupils.org.uk

To all my dyslexic pupils, who taught me what dyslexia really is

Acknowledgements

Dyslexia Scotland would like to thank the following for making possible the publication of this important series of books. Every secondary school in Scotland has been supplied with a copy. All material contained in the booklets and CD is downloadable free from the Dyslexia Scotland website - www.supportingdyslexicpupils.org.uk.

Special thanks to **M & A Thomson Litho Ltd**, East Kilbride, Scotland who printed the booklets at below cost – www.thomsonlitho.com.

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Dyslexia Scotland is the voluntary organisation representing the needs and interests of dyslexic people in Scotland.

Mission Statement

To encourage and enable dyslexic people, regardless of their age and abilities, to reach their potential in education, employment and life.

Dyslexia Helpline: 0844 800 84 84 - Monday to Friday from 10am until 4pm.

Dyslexia Scotland, Stirling Business Centre, Wellgreen, Stirling, FK8 2DZ
www.dyslexiascotland.org.uk

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Scottish Charity No. SCO00951

FOREWORD

It is a privilege to be asked to write a foreword for this series of guides on dyslexia in the secondary school. Moira Thomson ought to be congratulated in putting together these informative and up to date guides that will both heighten the awareness of dyslexia in secondary schools and develop the knowledge and skills of teachers through the implementation of the suggestions made in the guides. Too often books and materials on dyslexia are cornered by a few, usually those who have a prior interest in the subject. Many feel it is not their concern, or they do not have the specialised experience to intervene. These guides will challenge and change that assumption. The guides are for all teachers – they contain information that will be directly relevant and directly impact on the practice of every teacher in every secondary school in the country. Not only that, the guides are up to date containing advice stemming from the most recent legislation (Education (Scotland) Act 2004: Additional Support for Learning). This makes the guides an essential resource in every school in the country.

Above all the guides provide a positive message. Dyslexia is couched in terminology that expresses what learners with dyslexia **can do** not what they 'can't do'. Any difficulties experienced by learners with dyslexia are seen as 'barriers to learning' which means that the onus is on supporting learners overcome these barriers and this places the responsibility firmly on the professionals working in schools. This reiterates the view that dealing with dyslexia is a whole school responsibility.

The breadth of coverage in these guides is colossal. It is highly commendable that Moira Thomson has met this immense task with true professionalism in providing clearly written and relevant guides incorporating the breadth of the curriculum. As well as including all secondary school subjects the guides also provide information on the crucial aspects of supporting students preparing for examinations, the use of information and communication technology, information for parents, details of the assessment process and the skills that underpin learning. It is important to consider the view that learners with dyslexia are first and foremost learners and therefore it is important that their learning skills are developed fully. It is too easy to place the emphasis on developing literacy skills at the expense other important aspects of learning. The guides will reinforce this crucial point that the learning skills of all students with dyslexia can be developed to a high level. I am particularly impressed with the inclusion of a section on classroom management. This again reinforces the point that managing dyslexia is a classroom concern and a learning and curriculum-focused perspective needs to be adopted. A focus on curriculum planning and acknowledging learning styles is essential if learners are to reach their potential in secondary schools.

The guides do more than provide information on dyslexia; rather they are a staff development resource and one that can enlighten and educate all teachers in secondary schools. I feel certain they will be warmly appreciated and used for that purpose. The guides will benefit school management as well as teachers and parents, but the real winners will be the students with dyslexia. It is they who will ultimately benefit and the guides will help them fulfil their potential and make learning a positive and successful school experience for all.

Dr. Gavin Reid,
Edinburgh, UK
July 2007

Dyslexia may be defined as a difficulty in processing language-based information. Short-term memory, sequencing, directionality and co-ordination may also be affected.

It is important that secondary teachers consider dyslexia in the context of their own subject. In any subject class there will be a need to make provision to meet a wide variety of strengths and additional support needs, not all linked to dyslexia, but, teaching and learning strategies that are appropriate for dyslexic pupils can be effective for all.

Dyslexia may be difficult for subject teachers to identify, but a mismatch between a pupil's apparent ability and the quality (and quantity) of written work is often observed. Subject teachers should use the Dyslexia Indicators Checklist to confirm any suspicion of a dyslexic profile. If several indicators are ticked, referral should be made to the Support for Learning (SfL) team for further investigation.

TEACHERS' RESPONSIBILITIES RE PUPILS WITH DYSLEXIA

Reference: Education (Scotland) Act 2004: Additional Support for Learning

It is a teacher's responsibility to provide a suitably differentiated subject curriculum, accessible to all pupils, that provides each with the opportunity to develop and apply individual strengths. Responsibilities for meeting the additional needs of dyslexic pupils are the same as those for all pupils, and should include approaches that avoid unnecessary dependence on written text. Subject teachers may be expected to use teaching and learning strategies that include:

- Recognition of and sensitivity to the range and diversity of the learning preferences and styles of all pupils
- Selection or design of appropriate teaching and learning programmes that match the range of all pupil abilities, within the curricular framework of the school
- Awareness of the learning differences related to dyslexia that may cause difficulties within these programmes
- Understanding that, while dyslexia is not linked to ability, able dyslexic pupils may persistently underachieve because of this
- Knowledge that many dyslexic pupils use strategies such as misbehaviour or illness for coping with difficulties they do not necessarily understand themselves
- Willingness to ask for advice and support from the Support for Learning team
- Commitment to the need to reduce barriers to learning linked to the delivery of the curriculum

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- Acknowledgement of the very severe difficulties that dyslexic pupils might experience due to failure to master the early stages of literacy and numeracy
- Understanding that dyslexia is developmental in nature and that some pupils who have coped with the early stages of literacy acquisition may have difficulties with higher order skills, which do not appear until upper primary or secondary
- Acceptance that some pupils with dyslexia may require additional support within the context of their subject and to consult with colleagues and specialists to determine how best to provide this
- Taking account of the difficulties experienced by dyslexic pupils when assessing progress so that subject knowledge and ability are assessed fairly by making alternative arrangements for assessments that reflect the additional support usually provided

Dyslexic pupils constantly meet barriers to learning across the curriculum and may become discouraged very quickly due to lack of initial success in subject classes. This can result in subject teachers assuming that pupils are inattentive or lazy, when they are actually working much harder than their classmates, but with little apparent effect. For pupils with dyslexia the experience of success may be rare, if not totally absent. They may:

- Lack self-confidence
- Have a poor self image
- Fear new situations
- Confuse written and verbal instructions
- Be very disorganised
- Lack stamina
- Appear to avoid set work

For example, a dyslexic pupil may fully understand the subject teacher's spoken introduction to a topic but be unable to follow the written instructions to complete class activities.

Dyslexic learners may excel in some aspects of the Sciences but experience great difficulty in others. In General Science classes, this may be puzzling for the teachers, since a dyslexic pupil's performance may vary according to the underlying scientific strands of different topics, resulting in inconsistent performance in the subject. While the possible strengths of dyslexic pupils and barriers to their attainment should be examined in this context of individual science subjects, there are some common elements that all science teachers should consider when constructing programmes of work.

Strengths of dyslexic pupils in the Sciences may include:

- Lateral thinking – a unique approach to problem solving
- Ability to design interesting experiments
- Contribution of creative, innovative ideas
- Asking insightful questions

READING/WRITING/COPYING/NOTE TAKING/MATHEMATICAL ACTIVITIES

The underpinning literacy difficulties of many dyslexic pupils will impact on their learning in all areas of the curriculum, including the Sciences, but those who also experience dyslexic difficulties in Maths will be further disadvantaged due to the need to apply certain Mathematical skills to studies in science, particularly in Physics.

Theory and preparation

Additional barriers to learning –dyslexic pupils may:

- Fail to identify a diagram, table, chart or graph as an integral part of text
- Be unable to process information presented as tables, charts or graphs
- Spend so long drawing diagrams, tables, charts or graphs, that they fail to label accurately or enter any data
- Struggle to record information in a table, or transfer data to a chart or graph accurately
- Be unable to recall scientific vocabulary and terminology
- Struggle with scientific formulae that require a combination of upper and lower case letters, which are not interchangeable
- Have difficulty writing formulae where superscript or subscript numbers must be correctly positioned in order for it to make sense e.g. powers and indices
- Confuse the scientific meaning of terminology with other uses of this in the curriculum or in everyday life – e.g. 'conductor'
- Have difficulty understanding and remembering scientific symbols;
- Be unable to follow/remember a sequence of instructions
- Have difficulty assimilating abstract concepts
- Confuse similar words, resulting in misinterpretation of content and context

Suggested support strategies:

- Pair up a dyslexic pupil with a good reader as peer support
- Explain the role of diagrams, etc. in the text and teach how to create good diagrams with minimal written explanation
- Provide a full explanation of how to interpret each diagram, table, chart or graph in context
- Provide blank tables, charts etc that are already labelled
- Always show and name lab equipment when giving instructions for its use
- Label all lab equipment cupboards with pictures as well as words - and do not move things around
- Put up posters and wall charts of lab equipment – use a picture/drawing + name
- Issue pupils with illustrations to help them remember scientific vocabulary and terminology
- Highlight key information/vocabulary and issue word lists of 'new' vocabulary for a new topic – in advance if possible
- Do not penalise spelling errors but explain and give examples to stress its importance e.g. word endings in Chemistry

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- Revise and remind pupils of the need to use upper and lower case, sub and superscript in formulae – ICT use helps with this
- Help pupils to devise individual ways to ensure that they do not confuse upper and lower case, sub- and superscript in formulae
- Use a Maths or Science reference booklets to help with mathematical aspects of the science subject
- Issue a formula prompt sheet with colour coding or highlighting to stress upper and lower case, sub- and superscript in formulae
- Use ICT with word prompts to support word finding
- Do not ask dyslexic pupils to copy notes/diagrams – issue copies of these
- Do not ask dyslexic pupils to make notes while watching a demonstration or listening to instructions
- Allow pupils to record dictated notes so that they can store them as voice files for revision – or issue legible copies of these

Practical activities

Barriers to learning - dyslexic pupils may:

- Have difficulty locating appropriate equipment
- Find holding a list of instructions in memory difficult
- Misunderstand complicated instructions
- Be unable to carry out a sequence of actions in the right order
- Take 3 to 4 times longer than classmates to complete the same activity
- Confuse directions - left/right or forward/back
- Have difficulty processing problems at the same rate as classmates
- Struggle to read scales and measurements
- Confuse similarly named equipment and substances and select the wrong item
- Have difficulty recording data when carrying out a practical task

Suggested support strategies – teachers should:

- Pair a dyslexic pupil with a good reader as a safety precaution
- Set vocabulary learning/revision for homework – use word searches and a 'games' approach in class to revise
- Highlight names of equipment needed – use pictures as well as words
- Give only a few instructions at a time and repeat instructions frequently
- Encourage pupils to check each others' equipment set up for safety points – rewards for collecting these can be built in
- Design flow charts showing the sequence of steps in an activity;
- Number the steps in a practical activity and encourage checking these off once completed
- Use prompts and arrows to indicate directions
- Give help for reading scales
- Allow pupils to dictate results during an experiment
- Allow extra time for dyslexic pupils to carry out practical tasks, or set up their workstations in advance
- Permit the use of alternatives to writing when recording results – e.g. Dictaphone

ALTERNATIVE ARRANGEMENTS FOR ASSESSMENTS

SQA and other examining bodies offer a range of alternative assessment arrangements for dyslexic pupils taking examinations. These are designed to reflect the support provided for dyslexic pupils in the curriculum and to address any specific difficulties caused by the style of the examination and its impact on the opportunities for dyslexic candidates to demonstrate actual attainment. Consideration should be given to the following points:

- Some dyslexic pupils may require alternative arrangements for practical assessments in Science subjects and many will need these for timed, written exams
- If the assessment instructions are given orally, dyslexic pupils may need to have these repeated sometimes more than once
- It may be necessary for dyslexic candidates to ask for specific work station arrangements in practical assessments in order to take account of ambient lighting etc
- When an internal assessment has been prepared in advance, dyslexic pupils may request that their notes are in digital or electronic format to enable them to be used effectively
- When an internal assessment involved reading and writing, dyslexic candidates are eligible for the same linguistic support used in class and for timed exams

The range of alternative assessment arrangements available for dyslexic candidates in timed, written exams includes:

- Linguistic support (reader, digital examination papers, scribe, transcription with correction)
- Extra time allowances
- Use of word processors with spellcheckers, specialised software and other technological aids
- Transcription without correction to remove illegibility
- Use of formula prompts and calculators where these are not generally available
- Rest periods/supervised breaks when the extra time makes the exam extremely long
- Adapted question papers for candidates who experience visual distortions

ROLE MODELS FOR DYSLEXIC PUPILS

When at school, the impact of dyslexic difficulties often outweighs a pupil's natural abilities in a subject area – which is one reason why teachers of successful individuals often express surprise – or astonishment – at their achievements after they have left formal schooling behind.

So, perhaps some of those who have already succeeded may be the best guides to promote understanding of how to create success where there is so often failure. The giftedness of some dyslexics seems to be particularly clear in fields where creativity and lateral thinking are important. In these areas, achievement is

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measured by demonstrated success, which is often more highly valued in society than traditional academic skills and paper credentials. The following personal comments and case histories may offer new insight into dyslexia.

Physicist, **Albert Einstein** had severe reading, writing and Maths difficulties. He could figure out the connections of the universe, but needed help from a mathematician to formulate his theories in formulas. He had a blackboard in his study, where multiplication tables were written – in common with many dyslexics, he never did manage to learn them. His teachers reported that he was 'mentally slow' - he was 'unsociable' – 'adrift forever in his foolish dreams'. Some dreams!

Thomas Edison - inventor

My teachers say I'm addled . . . my father thought I was stupid and I almost decided I must be a dunce.

Pioneer of artificial organs **Willem Kolff** came from a family where dyslexia was a problem and experienced difficulties at school. 'I can spell difficult words, but I cannot tell you whether "always" is spelled with one "l" or two "l's.'

American paleontologist, **Dr. John R. Horner** is a highly talented and innovative dyslexic working in science. 'He has an honorary doctorate and supervises Ph.D. candidates, but he never completed an undergraduate degree or any graduate work. 'Nobody knew what dyslexia was. . . everybody thought you were lazy or stupid or both.. I like to find things that nobody else has found, like a dinosaur egg that has an embryo inside.. there are 36 of them in the world, and I found 35.' He 'flunked out' of the University of Montana six times, but his brilliant synthesis of evidence forced paleontologists to revise their ideas about dinosaur behaviour, physiology, and evolution. In spite of his persistent academic failures, he came eventually to be acknowledged as one who has transformed some of the fundamental thinking in his field.

The stories of Horner and others force us to reconsider what is really important. In common with many other gifted dyslexics, Horner had extraordinary difficulties with things that are largely peripheral to his discipline - reading, writing/spelling, exams. But, he also proved to be unusually gifted in those things at the heart of his discipline - being unusually observant while searching for fossil bones, being able to interpret patterns from the evidence, developing innovative and persuasive arguments based on looking at raw data in a very different way.

Dr Terence Ryan, a leader in his field of medicine (dermatology) had unusual difficulties with his early education and his medical education because of his dyslexia. For example, with exams, he would usually recognize accurately symptoms and conditions but would sometimes come up with the wrong Latin medical names. However, in his practice and clinical observations, he found he could be a leader and innovator because he could recognize disease patterns that his medical colleagues could not. He suspected that he had greater powers of visual observation than many of his associates. He also thought his dyslexia helped him to be more flexible and innovative in his thinking, coming up with theoretical approaches quite different from others in his field.

Michael Faraday's pioneering work on force fields originally made little sense to mathematicians. He had terrible trouble with spelling and punctuation. His memory played tricks on him. He couldn't handle mathematics. He had one more typical dyslexic trait: a powerful visual sense. He forged a finished image in his mind's eye, then he broke that image down into parts that people could understand. It took a mathematician, Maxwell to convert Faraday's vision of force fields into mathematical language. Then he plotted the equations. "Faraday's methods ... began with the whole and arrived at the parts by analysis, while the ordinary mathematical methods were founded on the principle of beginning with the parts and building up the whole by synthesis" Maxwell

Virtual reality pioneer **Daniel Sandin**, says that people with dyslexia seem to problem-solve in unusual ways, perhaps working from the inside out or from the back to the front. Sandin, who still cannot spell or do arithmetic, developed the CAVE virtual reality system, which uses rear projection screens instead of a headset and knows where you are by generating your position in the room. It is a visual simulator completely matched to the human visual perceptual capability.

Also dyslexic...

Peter Scott - naturalist

Simon Clemment - British scientist who analyzed carbon compound found in the meteorite from Mars.

FURTHER READING

Horner, John R & Horner, Jack (2003): *Dinosaurs Under the Big Sky*, Mountain Press Publishing Company

Holmes, P (2001): *Dyslexia and Physics* IN Peer L & Reid G (2001) *Dyslexia – Successful; Inclusion in the Secondary School*, London, David Fulton Publishers

Howlett, CA (2001): *Dyslexia and Biology* IN Peer L & Reid G (2001) *Dyslexia – Successful; Inclusion in the Secondary School*, London, David Fulton Publishers

McKay, N (2005): *Removing Dyslexia as a Barrier to Achievement: The Dyslexia Friendly Schools Toolkit*, Wakefield, SEN Marketing
Of particular interest is the chart of Dyslexia Friendly Classroom Strategies on page 214

Peer, L & Reid, G (2001): *Dyslexia – Successful Inclusion in the Secondary School*, London, David Fulton Publishers
Particularly Chapter 24 p 209 – The use of learning styles and thinking skills to access success

DYSLEXIA INDICATORS AT THE SECONDARY STAGE

Dyslexia is more than an isolated defect in reading or spelling. The problem may be perceptual, auditory receptive, memory-based or a processing deficit.

Subject teachers are not expected to be able to diagnose these difficulties as such, but some general indications are listed below. If several of these are observed frequently in the classroom, please tick the relevant boxes and enter details of the pupil concerned and pass to the Support for Learning team for further investigation.

Pupil Name: _____ Class: _____ Date: _____

- Quality of written work does not adequately reflect the known ability of the pupil in the subject
- Good orally but very little written work is produced – many incomplete assignments
- Disappointing performance in timed tests and other assessments
- Poor presentation of work – e.g. illegibility, mixed upper and lower case, unequal spacing, copying errors, misaligned columns (especially in Maths)
- Poor organisational skills – pupil is unable to organise self or work efficiently; carries either all books or wrong ones; frequently forgets to hand in work
- Sequencing poor – pupil appears to jump from one theme to another, apparently for no reason
- Inability to memorise (especially in Maths and Modern Languages) even after repeated practice
- Inability to hold numbers in short-term memory while performing calculations
- Symbol and shape confusion (especially in Maths)
- Complains of headaches when reading; sometimes see patterns in printed text; says that words move around the page or that text is glaring at them
- Unable to carry out operations one day which were previously done adequately
- Unable to take in and carry out more than one instruction at a time
- Poor depth perception – e.g. clumsy and uncoordinated, bumps into things, difficulty judging distance, catching balls, etc.

- Poor self-image – lacking in confidence, fear of new situations – may erase large quantities of written work, which is acceptable to the teacher
- Tires quickly and work seems to be a disproportionate return for the effort involved in producing it
- Easily distracted – either hyperactive or daydreaming
- Other – please give details**

Teacher: _____ Subject: _____

- Action requested:
- details of known additional needs
 - investigation of problem and advice re support
 - dyslexia assessment
 - profile of additional needs
 - suggest strategies for meeting additional needs
 - advice re assessment arrangements

Dyslexia Scotland has supplied every secondary school in Scotland with a free copy of this publication. **All information contained in the 18 booklets and CD, including extra copies of dyslexia identification checklists, is available free to download from their website.**

www.supportingdyslexicpupils.org.uk

CD CONTENTS:

Worldwide dyslexia contacts

Identification & Assessment of dyslexia

Dyslexia checklist for subject teachers
Classroom Observation
Pupil Checklist for Dyslexia
Dyslexia - self esteem issues
Assessment Materials
Fine Motor Assessment (writing)
Visual Dyslexia
Strategies to meet identified needs
Example of a dyslexic profile
Personal Learning Plan: Example of an information page
Dyslexia glossary

Co-morbid conditions

ADHD - teachers' checklist
Visual Discomfort Meares-Irlen Syndrome
Dyspraxia
Dyscalculia
Dysgraphia

Teaching & Learning

Summary: Classroom management support strategies
Developing Social Skills - dyslexic learners
Dyslexia glossary of terminology
Modern Languages Grid

Study skills

Active Revision.
Techniques for improving memory
Study techniques Revision
Accessible Curricular Materials.
Writing support using ICT
CALL project Voice recognition –
Description for schools
Small and Portable Devices.

Examinations and assessments

SQA Guide for Candidates: Arrangements for
Disability Support
National Testing
Use of a calculator in Maths noncalculator exam papers
Modern Foreign Languages Writing
Glossary of Exam language
Active Revision
Stress reducing strategy

Resources

ICT resources to support developing numeracy
ICT resources to support developing literacy
ICT and Practising Literacy Skills
Further Reading suggestions
Learning & Teaching Scotland – downloadable resources
Barrington Stoke link
Dyslexia Shop catalogue link
iANSYST website link

Information for parents of dyslexic pupils

Enquire parent guide
Dyslexia Scotland Guide for Parents
Visual processing difficulties
Using ICT to support writing
ICT Starting Points
Small and Portable Devices
Alternative Therapies
Supporting and working with parents of dyslexic pupils
Contributory factors dyslexia
Homework Tips for Parents
Meeting the teacher - parent's guide
Information for parents - Alternative Assessment
Arrangements
Suggested reading list for parents

Downloadable leaflets & information

What is dyslexia
DfES How to Identify Dyslexia
DfES Being Dyslexic
DfES Tips for Secondary School
BDA Secondary School Tips
A framework for understanding Dyslexia – DfES
Guidance to support pupils with dyslexia and
dyscalculia - DfES
How Can Parents Help
Dyslexia Scotland Guide for Parents
Enquire Parents Guide to Additional Support for Learning
Help for Dyslexic student
Dyslexia Indications for Adults
Checklist for Adults
Dyslexic adults assessments
Guide for Teachers
Help At Home.
Help with Reading and Spelling
How Can Parents Help
Help with Maths
Hints for Homework

Supporting Dyslexic Pupils in the Secondary Curriculum is a series of booklets for secondary school teachers throughout Scotland. They are intended to help them remove the barriers to learning that are often experienced by dyslexic pupils.

The pack of 18 booklets:

- Is an authoritative resource to help teachers meet the additional needs of dyslexic pupils as described in the Scottish Executive's ***Supporting Children's Learning Code of Practice (2005)***
- Provides subject teachers with advice and suggests strategies to enable them to minimise barriers to learning that dyslexic pupils might experience in the secondary curriculum and provide appropriate support
- Offers guidance for Support for Learning staff on the identification and support of dyslexia in the secondary curriculum and on advising subject colleagues
- Addresses the continuing professional development needs arising from national, local and school initiatives
- Is packed with practical information and tips for teachers on how to give dyslexic pupils the best chance of academic success
- Is supplemented with a CD crammed with practical and helpful downloadable material

Moira Thomson recently retired as Principal Teacher of Support for Learning at Broughton High School, Edinburgh, after 30+ years. She was also Development Officer for City of Edinburgh Dept of Children & Families; in-house CPD provider for City of Edinburgh Dept of Children & Families; Associate Tutor for SNAP; Associate Assessor for HMIE. Moira is an independent adjudicator for the Additional Support for Learning dispute resolution; educational consultant, providing CPD for secondary teachers; secretary of the Scottish Parliament's Cross Party Group on Dyslexia; member of Scottish Qualifications Authority focus groups and a committee member of Dyslexia Scotland South East.

"I truly hope that all teachers will embrace this publication. If they can put into practice the guidance offered it will make a fundamental difference to the way dyslexic children are taught in school today. Young people in Scotland deserve this chance."

Sir Jackie Stewart OBE, President of Dyslexia Scotland.



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