DYSLEXIA AT SECOND LEVEL: FACTSHEETS FOR TEACHERS

These factsheets have been published to give teachers in second level schools in Ireland clear and concise information on dyslexia, how it affects students and how schools and teachers can help. With dyslexia affecting approximately one in ten people, there are many thousands of students with dyslexia in Irish second level schools. For some, the difficulties may be so severe they are receiving extra support through learning support or resource teaching. The majority depend on help from mainstream teachers.

The factsheets are a starting point. Factsheet 18 on resources gives information about books, teaching resources and websites which deal with the topic in detail. In particular several books are highlighted that could be considered essential for staff in all second level schools.

How to use the pack
Some factsheets are relevant for all staff. These include:
- What is dyslexia?
- Understanding the psycho-educational assessment.
- General classroom strategies.
- Developing reading and comprehension skills across the curriculum.
- Developing vocabulary and writing skills across the curriculum.
- Making information more accessible.
- Resources.

There is a factsheet with tips for parents on how they can support the student as well as one for students themselves on study techniques and online resources.

The Factsheets are available for download on the websites www.dyslexiacourses.ie and www.dyslexia.ie and are updated on an annual basis.

The factsheets have been written by Mary Ball, an educational psychologist who worked with Dyslexia Association of Ireland (DAI) for many years and Wyn McCormack, a guidance counsellor and special educational needs teacher.

Wyn, together with Deirdre McElroy, a former educational psychologist who worked with NEPS, offer courses within the school setting on dyslexia for school staffs, information nights for parents on how they can support the student and study workshops for senior cycle students. Full details are available at www.dyslexiacourses.ie.

The Dyslexia Association of Ireland provides courses for teachers, parents and students at venues throughout Ireland as well as seminars on assistive technology. Details of their courses are available on the website www.dyslexia.ie.

The Department of Education and Skills emphasised the importance of literacy and numeracy in the documents Literacy and Numeracy for Learning and Life and The Framework for the Junior Certificate 2012. These documents state that literacy and numeracy proficiency is fundamental to a student’s development. Teachers of all subjects have an important role to play in developing these skills.

Many of the teaching approaches and strategies that support the student with dyslexia are also of benefit to the general student body.

Other factsheets are more specific such as those on educational choices, maths and languages. It is hoped that school management would give copies of the relevant factsheets to all teachers depending on the subjects they teach.
FACTSHEETS ON DYSLEXIA FOR SECOND LEVEL SCHOOLS

Factsheet 1  What is Dyslexia?
Factsheet 2  Screening and Identification
Factsheet 3  Understanding the psycho-educational assessment report
Factsheet 4  The assessment report and its implications for learning
Factsheet 5  Supports for students with dyslexia in Irish Education
Factsheet 6  School policies to support the student with dyslexia
Factsheet 7  General classroom strategies for mainstream teachers
Factsheet 8  Developing reading and comprehension skills across the curriculum
Factsheet 9  Developing vocabulary and writing skills across the curriculum
Factsheet 10  Mathematics: dyslexia and dyscalculia
Factsheet 11  Teaching mathematics to students with dyslexia and/or dyscalculia
Factsheet 12  Teaching languages to students with dyslexia
Factsheet 13  Educational choices for students with dyslexia
Factsheet 14  Making information accessible, the dyslexia-friendly style guide
Factsheet 15  Computers and assistive technology
Factsheet 16  How parents can support the student with dyslexia
Factsheet 17  Study tips for the student with dyslexia including a section on resources
Factsheet 18  Useful resources for teachers

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Downloadable at www.dyslexiacourses.ie and www.dyslexia.ie.
FACTSHEET 1: WHAT IS DYSLEXIA?

Dyslexia is a neurological condition that makes it difficult to acquire the skills of reading and writing. Characteristic features include difficulties in phonological awareness, verbal memory and verbal processing speed. Phonological awareness is the ability to notice, think about and manipulate individual sounds or phonemes and syllables within words.

Key points on dyslexia
- Research has identified genetic components in dyslexia.
- Dyslexia occurs across a range of intellectual abilities.
- It affects about one in ten persons.
- It occurs along a continuum. One student’s dyslexia may be very severe while another’s may be quite mild. No two students are likely to have the same profile.
- Dyslexic difficulties do not affect all tasks. An individual may be very poor at reading but may excel at engineering, maths or art. Not all aspects of reading and writing will be equally weak.
- Dyslexia may co-occur with other specific learning difficulties such as dyspraxia, dyscalculia, attention deficit disorder, Asperger’s syndrome or speech and language impairment.

Identification
A psycho-educational assessment carried out by an educational psychologist is needed for a definitive diagnosis of dyslexia. The assessment may include testing of cognitive abilities as well as literacy and numeracy skills. The psychologist also needs relevant background information such as developmental history and other interventions from parents, schools, colleges or any other relevant sources.

What are the core features that identify dyslexia?
- Most researchers agree that the core difficulty in dyslexia is caused by a phonological deficit. This results in students having difficulty in identifying the separate sounds in a word and later not being able to match sounds with patterns of spelling. They may not process the sound accurately, may become confused trying to sequence the sounds in the correct order or may not remember the common letter patterns that sound out/spell out syllables. They may end up guessing at written words.
- It takes learners with dyslexia longer than average to acquire a knowledge of letter-sound patterns to the point that they can recognize them automatically.
- They may also have difficulty with word recall and with the speed of word recognition. Thus, while it appears that the core difficulty is at the level of phonological awareness, individuals with dyslexia often show difficulties with working memory, becoming automatic in tasks and rapid naming.
- They may have difficulty with co-ordination, fine motor movement, time management, organization/sequencing, space, direction and laterality.

Students with dyslexia may experience difficulties with some of the following:
- Visual discomfort (stress) when reading. Words may blur and appear to move.
- Reading inaccurately, losing their place on the page, becoming stressed when reading aloud.
- Rote learning such as learning poetry, maths tables and formulae.
- Copying from the board or taking notes from dictation.
- Spelling.
- Understanding complex instructions.
- Planning and writing essays.
- Written answers are too short and points are underdeveloped.
- Handwriting may be disjointed, illegible at times or have many cross-outs.
- Finishing work on time.
- Confusion about places, times and dates leading to problems of organization.
- Wide discrepancy between oral and written work.

How does dyslexia affect the student’s self-esteem?
Students, who see dyslexia as being a part of who they are and whose family, friends and educators
are supportive, encouraging and accommodating, will develop confidence, a strong self-image and will have the ability to solve and circumvent the challenges that dyslexia presents. As with all students, with or without dyslexia, success at a task is the most effective guarantee of continued success because it generates a confidence that enables students to believe in their ability to learn.

Students, who have to struggle too much and who feel that their difficulties are not understood, may be at risk of giving up, particularly in secondary school. Because literacy is such a major accomplishment in modern culture and essential for navigating school, failure to become literate can have significant negative effect on self esteem. The result can be acting out, evasion, depression and risk of being bullied or of being a bully.

**How are these risks avoided?**
Dyslexia is life-long but can be greatly helped by appropriate interventions which teach students strategies for dealing with its effects through knowing their strengths as well as their weaknesses and using their abilities to problem-solve around the difficulties. The onus is not all on the student. Schools and teachers need to make the environment learning-friendly for these students.
FACTSHEET 2: SCREENING AND IDENTIFICATION

Concerns about a student may arise from the results of standardised tests or from observations and/or concerns from parents, teachers or the students themselves.

The results of standardised tests such as those used at entrance assessment or prior to senior cycle may show an uneven profile of ability. The Cognitive Abilities Test (CAT) is used in many schools for entrance assessment. It tests verbal, numeric and non-verbal reasoning. A significantly lower result in verbal reasoning in relation to the other two, and in particular the non verbal reasoning, should prompt some further investigation. The Differential Aptitude Tests (DATS), which are often used prior to senior cycle, also have verbal, numeric and abstract reasoning sections where such a pattern also may be apparent. Is there a routine analysis of tests results such as CAT or DATS to check if such anomalies are present?

Concerns often arise from reports and observations from parents, teachers or even students themselves. Parents often voice concerns about particular difficulties a student may have. Teachers, noticing inconsistencies in the work of students, may suggest further investigation. Students may ask for help in understanding the unpredictability in their own performance.

If concerns arise, what is the next step?

Is there a clearly defined referral system in the school where such concerns can be addressed? Does the referral go to the Guidance Counsellor or to the Special Education Teacher? As a first step the teacher investigating such concerns could use the list of indicators published by the Department of Education and Skills (DES) to guide their action.

There are four lists of indicators, one of which is for students of 12 years plus. This is a checklist only. It is not likely that any student will have all the indicators on the list.

Indicators of a possible learning difficulty arising from dyslexia (ages 12 Years+)

- Still reading slowly and without fluency, with many inaccuracies.
- Misreads words (e.g. hysterical for historical) or information.
- Difficulty modifying reading rate.
- An inadequate store of knowledge due to lack of reading experience.
- Continues to experience serious spelling difficulties.
- Slow, dysfluent and/or illegible handwriting.
- Better oral skills than written skills.
- Difficulty planning, sequencing and organising written text.
- Difficulty with written syntax or punctuation.
- Difficulty skimming, scanning and/or proofreading written text.
- Trouble summarising or outlining.
- Problems in taking notes and copying from the board.
- Procrastinates and/or avoids reading and writing tasks.
- Does not complete assignments or class work or does not hand them in.
- Slow in answering questions, especially open-ended ones.
- Poor memorisation skills.
- Still mispronounces or misuses some words.
- Problems recalling the names of some words or objects.
- Poor planning and organisation skills.
- Poor time management skills.
- More difficulty in language-based subjects (e.g. English, Irish, history) than in non-language based subjects (e.g. mathematics, technical graphics).
- Lacks self-confidence and has poor self-image.

Dyslexia screening tests

Further investigation by the teacher could include the use of dyslexia screening tests which are instruments used to identify the possible cause of the reading delay. Two appropriate for use at second level are:

1. Lass Secondary is a computer programme which is a series of assessments in the form of games that test literacy, reasoning and cognitive skills including memory and phonics. Any difficulties of a dyslexic nature such as
those caused by underlying problems in phonology or memory are easily identified.

2. The Dyslexia Screening Test – Secondary is used to identify students who are still experiencing difficulties at second level. Subtests include rapid naming, verbal fluency, non-verbal reasoning, reading and spelling. It takes about 30 minutes to administer on an individual basis. These are useful as a preliminary step but they don’t give sufficient in-depth information for an accurate identification.

**Referral for a psycho-educational assessment**

The screening test and/or the checklist may strengthen the suspicion that the student may have dyslexia. They also help when discussing possible referral for an assessment with parents. Traditionally a full psycho-educational assessment, which is carried out by an educational psychologist, is needed for a diagnosis. This involves a detailed test of cognitive ability (including such abilities as range of vocabulary, non-verbal reasoning, visual-spatial abilities and working memory) as well as in-depth assessment of reading and writing skills. Evidence from history of past and current attainment is also considered before arriving at a definite identification of dyslexic difficulties.

This form of assessment is still required when applying for such supports such as language exemptions and applications to DARE (Disability Access Route to Education). It may accompany applications for RACE (Reasonable Accommodations in Examinations).

However, there is some debate at the present time as to whether such an assessment of IQ (cognitive testing) is necessary as part of an assessment to identify dyslexia. For example, in April 2015 the Dyslexia Association of Ireland (DAI) introduced a new policy that it will only conduct a full IQ test with the client if the educational psychologist deems it necessary and in the best interests of the client.

National Educational Psychological Service (NEPS) provides a number of assessments to schools. Otherwise parents may opt for a private assessment. A list of practising psychologists may be obtained from the Psychological Society of Ireland [www.psihq.ie](http://www.psihq.ie). DAI provides psycho-educational assessments. There is usually a waiting list for private assessments. Private assessments can be costly. However it is possible to claim tax back on part of the cost on the MED 1 form.

Students at senior cycle who intend to apply to the CAO using the Disability Access Route to Education (DARE) will need an assessment which is less than three years old.

**New model for resource allocation**

In 2014 the NCSE (National Council for Special Education) proposed a new model for allocating teaching resources to primary and post primary schools in the document *Delivery for Students with Special Educational Needs*. Consultation with the educational stakeholders is taking place before the new model is implemented.

The model aims to provide a better and more equitable way to allocate teaching resources. The NCSE suggests changes to the existing model for a number of reasons including:

- It requires a diagnosis of a special educational need but access to professionals who can make the diagnosis is not readily available to all students. The allocation of additional teaching resources should not depend on a parent’s ability to pay or proximity to HSE resources.
- There is a risk that children are being diagnosed as having a special educational need for resource allocation purposes rather than such a diagnosis being required for health reasons.

In 2015 the Minister of Education and Skills, Ms. Jan O’Sullivan indicated the intention to pilot this model during the 2015/2016 school year.

In this new model there is no need for a psycho-educational assessment to access additional teaching. Schools will no longer have to make individual applications for resources. It means each school decides how much support a child will receive. The distinction between learning support and resource teachers will disappear and they will be called support teachers.

However the student will still need an assessment to access other supports such as language exemptions, digital copies of textbooks or DARE. The assessment is also a useful tool for parents and teachers as it provides a profile of learning strengths and weaknesses as well as guidance for the most appropriate teaching strategies.
FACT SHEET 3: UNDERSTANDING THE PSYCHO-EDUCATIONAL ASSESSMENT REPORT

The psycho-educational assessment is a means of assessing how one learns. It is most frequently used to identify a student’s learning difficulty. However the information gained should be used as the basis for individual interventions and programmes of learning.

What does an assessment involve?
A psycho-educational assessment typically consists of a test of cognitive ability and tests of attainments in literacy and numeracy.

Cognitive ability means how the brain takes in, retains and makes use of information. The speed with which information is processed is also assessed. There are a number of ability tests used by psychologists. Currently the test most frequently used is the Wechsler Intelligence Scale for Children, 4th edition. It is commonly referred to as WISC-IV. There is an updated version called WISC-V due to be released. The adult version is known as the WAIS. Other tests sometimes used include the British Ability Scales (BAS), the Woodcock Johnson Test of Cognitive Ability and the Stanford Binet Intelligence Scales.

Attainments tests refer to tests of reading, spelling and numeracy. The results are derived from standardised tests of word recognition, reading comprehension, spelling, word attack skills, arithmetical knowledge and understanding of mathematical concepts.

From April 2015 the policy of the Dyslexia Association of Ireland (DAI) is that the assessment will cover a range of literacy skills including reading of single words (both real and non-words), phonological awareness, reading fluency/speed, reading accuracy, comprehension and spelling. Related cognitive skills including memory, rapid naming, and other language skills are also investigated. Cognitive testing will be included when the educational psychologist deems it necessary and in the best interests of the client.

What information is in the report?
The report contains background information, observations of how a student approaches a task during assessment, tests results, descriptions of what the tests mean and where the scores place the student in relation to other students of similar age. The findings are summarised, a conclusion is stated and recommendations for future action are given. All sections are important to read to understand the student’s learning profile.

Is there a way to get relevant information quickly, subject to a detailed study of the report later?
Yes. It can be done by:
- Checking the child’s background history especially if earlier assessments and identification of difficulties have taken place.
- Looking at the table of results.
- Reading the conclusions drawn by the psychologist.
- Examining the recommendations.

Key elements in planning teaching interventions are the strengths and weaknesses on both the cognitive and the attainment tests.

Understanding scores
Scores used in the assessment may be given as standard scores, percentiles or scaled scores.

Standard scores are based on the Normal Distribution Curve and range from approximately 40 to 130+. A score of 100 is the mid-point of the curve. 50% of the population will score between 90 and 109. This is designated as the ‘Average’ range.

Percentile scores range from 1 to 99. They calculate where, in a typical group of 100 students of the same age, the student would be placed in terms of achievement on a particular task, group of tasks and ability. Thus the student placed at the 90th percentile achieved as well or better than 90 students out of the 100.
The table below sets out the standard score range, percentiles, the percentage of the population who would achieve such scores and the descriptive categories relating to these scores.

<table>
<thead>
<tr>
<th>Standard Score</th>
<th>Percentile score</th>
<th>% of population</th>
<th>Descriptive Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>130 and above</td>
<td>98-99</td>
<td>2%</td>
<td>Exceptionally high, very superior</td>
</tr>
<tr>
<td>120-129</td>
<td>91-97</td>
<td>7%</td>
<td>High, superior</td>
</tr>
<tr>
<td>110-119</td>
<td>75-90</td>
<td>16%</td>
<td>High Average, above average</td>
</tr>
<tr>
<td>90-109</td>
<td>25-74</td>
<td>50%</td>
<td>Average</td>
</tr>
<tr>
<td>80-89</td>
<td>9-24</td>
<td>16%</td>
<td>Low Average</td>
</tr>
<tr>
<td>70-79</td>
<td>3-8</td>
<td>7%</td>
<td>Low,</td>
</tr>
<tr>
<td>Below 70</td>
<td>1-2</td>
<td>2%</td>
<td>Exceptionally low</td>
</tr>
</tbody>
</table>

Scaled scores may also be quoted in the report. They use a scale of 1 to 19. The mid-point is 10. The average range is 8-12. Any score above 12 is above average and the closer the score is to 19 indicates increasing ability. Any score below 8 is below average and the closer the score is to 1 indicates increasing difficulty.

**Attainment Testing in Literacy and Numeracy**

The results in the attainment testing section of the report may be given as standard scores and/or percentiles. Sometimes age equivalents such as a reading or spelling age for the student are given. Reading and spelling ages are not helpful for the secondary school student.

Many students with dyslexia have a wide discrepancy between their levels of numeracy and literacy and their cognitive ability. A discrepancy may also be apparent between their ability to read and write in comparison to their peers. It can be relatively easy to see where they need support. However, some students with dyslexia will get average scores on their literacy attainments. It is a mistake to assume that they are coping as tests do not assess every aspect of their learning.

**Can a student’s profile change?**

Yes. As a student learns to use as many different abilities as possible to problem-solve, one may expect that a profile will change. Work that is presented and learned through multiple channels is more likely to be effective than work presented or learned through one channel only. In addition, structure, repetition and making associations are strategies that need to be taught. Constant monitoring by the teacher enables students to stretch beyond their present level of attainment.
FACTSHEET 4: THE ASSESSMENT REPORT AND ITS IMPLICATIONS FOR LEARNING

Traditionally the assessment includes testing of both cognitive abilities and literacy/numeracy skills. The test most frequently used for cognitive testing is the Wechsler Intelligence Scale for Children, 4th edition. It is commonly referred to as WISC-IV.

WISC-IV recognises there are distinct abilities in cognitive functioning that can be grouped together and measured. It has four headings or indexes of abilities. These are verbal comprehension, perceptual reasoning, working memory and processing speed. The score for each of the four headings is based on the aggregate of scores from a number of subtests. For example the score for working memory is based on the combined scores of two out of the three subtests of digit span, letter/number sequencing and arithmetic.

**Terms use in WISC-IV results**

- The **IQ (Intelligence Quotient)** is computed from the scores of all four indexes.
- The **General Ability Index (GAI)** score is used instead of the IQ score when there is an exceptionally large discrepancy between the highest and lowest Index scores. GAI is calculated from the verbal comprehension and perceptual reasoning scores only.
- The **confidence interval** means that it is likely that the candidate’s real ability is best described as lying between the two scores given, rather than being described by a single score.

An example of the summary sheet showing the profile of results of the WISC-IV for a student with dyslexia is shown on the next page.

**Key points in this profile**

- The overall ability is in the middle of the average range (standard score 103).
- Working memory (SS 80) is particularly weak.
- Verbal comprehension (SS 99) is mid-average.
- Perceptual reasoning (SS 115) and processing speed (SS 112)) are in the high average range. These non-verbal/visual-spatial abilities are strengths.

**Possible classroom difficulties**

Poor working memory may present in some of the following ways:

- Forgetting verbal instructions.
- Difficulties with rote learning, mental arithmetic and memorising tables.
- Problem-solving due to difficulties holding topics in the mind while working on them.
- Reading delay and poor reading comprehension.
- Disorganisation in written work and forgetting books, equipment and homework.

**Possible interventions**

The profile indicates very well-developed visual perceptual skills. The student should use these strengths to overcome the weakness in working memory. Strategies that would help include:

- Mindmaps, visual planners and organisers.
- Making clear notes using colour, numbering headings and diagrams.
- Use of homework journal to help with organisation. Colour coding files for notes.
- Using a single diary for all activities.
- Reducing rote learning by ensuring material to be learnt is understood.
An example of a WISC-IV summary sheet for a student with dyslexia

<table>
<thead>
<tr>
<th></th>
<th>Standard Score</th>
<th>95% confidence interval</th>
<th>Percentile</th>
<th>Descriptive range</th>
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</thead>
<tbody>
<tr>
<td><strong>Full Scale IQ</strong></td>
<td>103</td>
<td>98-108</td>
<td>58</td>
<td>Average</td>
</tr>
<tr>
<td><strong>General Ability Index (GAI)</strong></td>
<td>102</td>
<td>97-107</td>
<td>55</td>
<td>Average</td>
</tr>
</tbody>
</table>

**Composite Scores**

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<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Verbal Comprehension</td>
<td>99</td>
<td>92-106</td>
<td>47</td>
<td>Average</td>
</tr>
<tr>
<td>Perceptual Reasoning</td>
<td>115</td>
<td>106-121</td>
<td>84</td>
<td>High Average</td>
</tr>
<tr>
<td>Working Memory</td>
<td>80</td>
<td>74-89</td>
<td>09</td>
<td>Low Average</td>
</tr>
<tr>
<td>Processing Speed</td>
<td>112</td>
<td>102-120</td>
<td>79</td>
<td>High Average</td>
</tr>
</tbody>
</table>

**Subtest Scores**

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<tr>
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<tr>
<td>Similarities</td>
<td>11</td>
<td>Block Design</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Vocabulary</td>
<td>09</td>
<td>Picture Concepts</td>
<td>14</td>
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<tr>
<td>Comprehension</td>
<td>10</td>
<td>Matrix Reasoning</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Information</td>
<td>09</td>
<td>Picture Completion</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Word Reasoning</td>
<td>09</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Digit Span</td>
<td>07</td>
<td>Coding</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>L-N Sequencing</td>
<td>06</td>
<td>Symbol Search</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Arithmetic</td>
<td>07</td>
<td>Cancellation</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>
FACTSHEET 5: SUPPORTS FOR STUDENTS WITH DYSLEXIA IN IRISH EDUCATION

The key supports for students with dyslexia in Irish education include extra teaching support, language exemptions, RACE (Reasonable Accommodations in Certificate Examinations), DARE (Disability Access Route to Education) which is the supplementary admissions scheme for entry to CAO courses and financial assistance for the purchase of equipment or the cost of assessment.

Extra teaching support
At present there are two types of additional teaching support for students with difficulties.

Resource teaching hours are granted by the SENO (Special Educational Needs Organiser). Dyslexia is considered to be high incidence and is included in the general allocation of additional teaching hours. Application for the purchase of equipment which is deemed necessary, such as laptops, is also be made to the SENO.

Learning support targets students whose literacy or numeracy is below the 10th percentile on a standardised test, regardless of whether the student has an assessment or not.

In 2014 the NCSE (National Council for Special Education) proposed a new model for allocating teaching resources in the document Delivery for Students with Special Educational Needs. In this new model both learning support and resource teachers will become support teachers. See Factsheet 2.

Language exemption: Irish
Students, who have a diagnosed specific learning difficulty including dyslexia, may be granted an exemption from the study of Irish, subject to specific criteria. The psycho-educational assessment should show that student has average or above average cognitive ability (a standard score of 90 or 25th percentile upwards) and is achieving at or below the 10th percentile on a standardised test of literacy.

The parents make a written application to the school with a copy of the psycho-educational assessment (less than two years old) which recommends the student should be exempt because the criteria have been met. The school issues the certificate of exemption and informs the Department of Education and Skills (DES). An exemption granted for student at primary school is recognised at post primary level and for the entry to the National University of Ireland (NUI) colleges.

Language exemption: National University of Ireland (NUI) Irish and third language requirement
The study of a third language is not compulsory at post primary level. However the entry requirements for NUI state that a student must pass six subjects in the Leaving Certificate (two at higher level) and that English, Irish and a third language must be included. NUI recognises the DES exemption from Irish. Students with the Irish exemption are eligible for an exemption from the Irish and 3rd language requirements.

If a student does not have a DES exemption from Irish, an application can be made to NUI for an exemption from the Irish and/or the third language requirement. The student needs a psycho-educational assessment certifying that there is a specific learning difficulty present. This should be no more than 3 years old. Literacy attainment should be at or below the 10th percentile (standard score 81) in two literacy abilities and are significantly lower than might be expected from the student’s cognitive ability. Application forms and more details are available at www.nui.ie.

Language exemptions: Trinity College and University of Limerick
Both these colleges have a two language entry requirement. Students with dyslexia can apply for an exemption from this requirement by making a direct application to the respective college.

It is the responsibility of the student to ensure the CAO is informed of the existence of these language exemptions.

RACE (Reasonable Accommodation in Certificate Examinations)
Reasonable accommodation describes the various supports provided for students in the Junior and Leaving Certificate exams. These include:

- Reading assistance.
- Use of tape recorder.
- Use of a computer/word processor.
A scribe. When applying for a scribe, reasons must be provided why the student cannot use a computer or tape.

A waiver from the spelling and grammar elements of the exam in languages.

Students who receive any one of the first four accommodations take the exam outside the main centre. An explanatory note is attached to the statement of results.

Applications for RACE in the Leaving Certificate are made in May for the following year. There is a detailed application form to be filled in by the school. It should be accompanied three examples of the student’s work, preferably done under exam conditions, in subjects that require essay type answers. **Students should be encouraged to keep 5th year Christmas exam scripts.**

Evidence of a specific learning difficulty (SLD) should accompany the application. This evidence must be one of the following:

1. A psychological report that clearly states the student has a SLD
2. School evidence that clearly indicates the presence of an SLD and should include a test of general ability such as Cognitive Abilities Test (CAT4). If the application is turned down, there is an appeals process.

The school is likely to be required to carry out additional testing as the State Examinations Commission sets out criteria for each accommodation and specifies the tests to be used. The results should be given in standardised scores. The tests may be of handwriting speed, word reading or spelling/grammar/punctuation depending on the accommodation being sought. A standard score of 85+ is not likely to be eligible. A standard score of 85 is the equivalent of the 16th percentile.

Applications for RACE in the Junior Certificate are made in the October/November prior to the exam. It is a simpler application process.

If the student qualifies for accommodations in state exams, it follows that they benefit from receiving similar accommodations in house exams.

**DARE (Disability Access Route to Education)**

DARE [www.accesscollege.ie](http://www.accesscollege.ie) is a supplementary admissions scheme for school-leavers with disabilities applying to the CAO. Students may be admitted on their course of choice with lower Leaving Certificate points than those set by the CAO. The reduction in points for DARE places can vary every year and is dependent on a number of factors, such as:

- The number of places on the course
- The number of reserved DARE places on the course
- The number of DARE eligible applicants competing for these reserved places.

The application has three parts. The student completes a personal statement (Section A) and also has to ensure that a Section B (completed by the school) and Section C (the psycho-educational assessment) is submitted. This assessment must be less than three years old on February 1st of the year of application to the CAO. All tests used should be current, valid and age appropriate. The CAO [www.cao.ie](http://www.cao.ie) under the download tab has a link to DARE where there are downloads relevant to the assessment. These are:

- Psycho-educational assessment summary sheet.
- DARE suitable tests for the assessment of specific learning difficulties.
- DARE acceptable reports for specific learning difficulties.
- Second level academic reference form.
- DARE checklist

Students and their parents should be made aware of these downloads when going for an assessment.

The eligibility criteria for dyslexia state that ability should be at or above a standard score of 90 (25th percentile) and that standard scores in two literacy areas should be at or below a standard score of 81 (10th percentile). For dyscalculia, two mathematics scores should be at or below a standard score of 81.

If the student does not qualify for DARE, they are still eligible for help while at college and should contact the Access/Disability Officer of the college they will be attending.

**Financial Assistance**

VAT can be claimed back on the purchase of computers/assistive technology for home/personal use using Form VAT 61A from the VAT Repayments Section.

It is possible to claim tax back on part of the cost of a private assessment on the MED 1 form which is available from the Revenue Commissioners.
FACTSHEET 6: SCHOOL POLICIES TO SUPPORT THE STUDENT WITH DYSLEXIA

There are many ways in which school policies can support the student with dyslexia. Some may be whole-school policies on topics such as the readability of textbooks, the use of a dyslexia friendly style for handouts and exam papers or ensuring that teachers are aware of the learning difficulties of any student whom they teach. Other policies may be part of school organisation such as clearly delineated roles in supporting the student, option choice and class placement.

School organisation
Who provides support for students with dyslexia? Who should teachers go to if they have concerns that a student may have a learning difficulty?

Resource teaching hours may be provided by the Special Educational Needs Organiser (SENO). Learning support teaching hours target students who are at or below the 10th percentile in literacy and numeracy. In 2014 the NCSE (National Council for Special Education) proposed a new model for allocating teaching resources in the document Delivery for Students with Special Educational Needs. In this new model both learning support and resource teachers will become support teachers.

Who provides support for students with dyslexia who do not come within remit of resource or learning support? Such students may need help with option choice, study skills, exam accommodations or DARE applications. There needs to be a school policy where it is clear who they can approach for help.

Subject choice
- Is there support for students and their parents when deciding on the most appropriate options to choose in first year and for senior cycle? Due to the uneven pattern of ability there are some subjects in which students with dyslexia may do well and others in which they will find difficult to make progress.
- Does the option structure allow for the study of a third language to be optional? The Department of Education and Skills does not require students to take a language other than English and Irish. Some students with dyslexia find the study of languages very difficult and will achieve better results in other subjects. However since 2012 the eligibility criteria for the National University of Ireland (NUI) 3rd language exemption state that the student should be at or below the 10th percentile in two literacy areas. Many students with dyslexia have scores above these criteria. Parents need to be aware that they may be limiting college and course choice at third level if the student does not do a language.
- If the student is exempt from the study of Irish, is it possible to arrange for another subject or activity to take place during this time? The provision of a subject is of particular benefit in senior cycle because a student who is exempt Irish could be reduced to taking six subjects in the Leaving Certificate. Given the competitive nature of the points system, this may prove to be a disadvantage.

Class placement
- Are standardised tests used for entrance assessment and class placement? Are the limitations of such tests appreciated by the school? The Post-primary Guidelines on Inclusion state ‘standardised tests are often unsuitable for use with student with Special Educational Needs, because the language register inherent in many tests makes them inaccessible ....therefore caution should be exercised in using and interpreting the results.’
- If streaming is used for class placement, what is the most appropriate class to place the student with dyslexia who has average to above average ability but who might perform poorly on entrance assessment due to weaker verbal skills?
- In a streamed situation, is maths set for Junior Certificate? This allows the student with weaker verbal skills (which may result in being placed in a lower stream) but good maths ability to do higher level maths.
Communication with staff

• The Report of the Task Force on Dyslexia and the Guidelines on Inclusion state that mainstream teachers have the key responsibility for the progress of students in their class with learning support and resource teachers assuming supporting roles. Are all relevant teachers informed of a student’s difficulties? Information could include a profile of the student’s strengths/weaknesses and suggestions about effective teaching strategies based on the assessment.

• Such information is highly confidential and there should be policy and procedures for keeping it safe.

• Any teacher who has contact with the student also needs such information. These include the principal, deputy principal, year head, tutors, guidance counsellor and teachers involved in extra-curricular activities.

• Has in-service training being provided for the whole staff on the topic of learning difficulties including dyslexia? Such training may be available from Special Education Support Service www.sess.ie, or Dyslexia Courses Ireland www.dyslexiacourses.ie. Are teachers informed of training courses such as those provided by the Dyslexia Association of Ireland at central venues and on-line by ICEP — Europe www.icepe.ie and are they encouraged to participate?

Communication and teaching

• For students with dyslexia, the ability to read and understand text can be affected by the way the text has been written and produced. The font style, type of paper and layout of the page can affect how easy it is to read handouts and exam papers. Factsheet 14 gives guidelines on how to improve readability of text and could become the basis for a whole-school policy. It also includes advice on accessing readability statistics in Microsoft Word.

• School policies which promote dyslexia-friendly teaching and learning strategies could be adopted such as:
  o Providing notes if the student has difficulty taking notes from the board or dictation.
  o The use of graphic organisers.

• Subject departments should consider readability levels when deciding on texts. An analysis of some commonly used texts books for the Junior Certificate using internationally recognised readability tests showed some with reading age equivalents of fifteen or sixteen. See Factsheet 14 for more on calculating readability statistics.

• The language departments could co-ordinate the teaching of aspects of grammar such as parts of speech, verb tenses or punctuation to happen at the same time which would reinforce the learning taking place.

• The Understanding Dyslexia CD/DVD published by the Department of Education and Skills provides a form which helps students analyse where they are having difficulty in class and enables them to ask teachers for help. It is available under downloads at www.dyslexiacourses.ie.
FACTSHEET 7: GENERAL CLASSROOM STRATEGIES FOR MAINSTREAM TEACHERS

The Report of the Task Force on Dyslexia states that mainstream teachers have the major responsibility for the progress of each student in their classes including those who have learning difficulties arising from dyslexia. Learning support, resource teachers and other professionals have supporting roles. As a result the mainstream teacher needs to be familiar with the findings of the psycho-educational assessment report as the profile of strengths and weaknesses has implications for the student’s learning. There needs to be a system to impart such information to mainstream teachers on an on-going basis. However this is highly confidential information and must be held securely.

FAIRNESS
To successfully manage the inclusive classroom, teachers should re-examine the notion of what is ‘fair’. Fairness does not mean every student gets the same treatment but that every student gets what he or she needs.

Understanding Dyslexia  Department of Education and Skills

Tips to help with communication

- Write clearly on the board giving plenty of time to take down information and homework tasks. Don’t write too much on the board, as a board with a lot of information is harder to read. Erase before more is written. Check the student has copied it correctly.

- The student, who has difficulty with sequences or who has to listen and then process information, may become confused unless instructions are kept simple. Break down the directions into simple steps. Repeat key points. It is helpful to give written notices of events.

- If students are slow in retrieving facts or words, give extra time for them to answer so they can get their thoughts together. They can spend time anxiously worrying about being asked questions rather than listening to the teacher. Arrange that they will only be asked a question in particular circumstances such as when the teacher approaches their desk.

- Talk to the student and ask what would help. Understanding Dyslexia DVD has a checklist which helps students to identify what supports might help.

Tips on classroom organisation

- Have the student sit towards the front of the class.

- The notes of the student may be inaccurate, illegible or incomplete. Often the task of taking notes is so demanding and takes total concentration that the student is not listening and does not understand what is in the notes. Help them by showing how to take notes, providing notes for them or photocopying the notes of another student.

- Clear routines and directions make the classroom more secure. Put up classroom lists of the routine for the day or week. A calendar showing key dates for the term is useful. Have a wall chart with classroom rules. Wall charts of key terminology also help.

Don’ts

- Minimise the use of cursive handwriting whether it is on the board, in notes or on exam papers. Students find it difficult to decipher. Teacher notes and test papers should be typed preferably in a dyslexia-friendly style (See Factsheet 14).

- When disciplining, avoid punishments based on written work or shorten the task. Avoid lengthy lectures. After explaining what the
mistake/misbehaviour was and what they can do to remedy the situation, ask them to repeat what has been said. This verbalisation can help the student process what is said and increases understanding.

- Don’t ask the student to read aloud in class unless it has been checked that the student is willing to do so.

Teaching approaches

- Foster self esteem by giving genuine praise whenever possible and promoting activities that yield success.

- Multi-sensory teaching can help learning. If lessons include oral, written and visual elements, these provide more ‘hooks’ for the student to remember the content. Choosing texts which are available on DVD or tape can be helpful.

- Co-operative learning strategies which promote peer tutoring, active learning and discovery learning can help. The Post-primary Guidelines on Inclusion has a section on the topic. The Special Education Service www.sess.ie has an eLearning course and a DVD as well as resources on differentiation in the classroom.

Homework and exams

- Some students may answer off the point because they do not understand the question. They need to be taught how questions are structured and the meanings of words used in questions.

- Use positive correction techniques when correcting. Not all mistakes need to be marked. Take one particular category of error and correct it. Comment positively on what was done well. One method could be to correct with two stars for what was done well and one wish for what could be improved.

- Ensure they know how to enter homework and other commitments into the homework journal. They should have one diary for all commitments such as social life, sports, and school.

- Adapt class and homework goals when necessary. This may mean accepting shorter answers, typed homework or shortening lists of quotes or poetry to be learnt. Set a maximum amount of time to be spent on a task.

- Before an exam, students benefit from being given lists of key material to be revised, with sections of work allocated to particular weeks.

- Modify test formats to reduce the use of long written answers by using formats such as multiple choice, true and false questions, labelling diagrams and oral tests.

- Leave three lines between questions on an exam paper.
FACTSHEET 8: DEVELOPING READING AND COMPREHENSION SKILLS ACROSS THE CURRICULUM

Reading and writing are essential skills across the curriculum. Students with dyslexia frequently underachieve owing to weaker verbal abilities. Dyslexia affects reading in different ways. Some students may have to decode the words they are reading and therefore cannot remember the content of what they have read. Others may read slowly and have to reread several times to get the meaning of the text, while some may misread words when tired or stressed. However, due to underlying ability, if they can find a logical approach and apply their learning strengths to the task, they can make rapid progress. There are many ways mainstream teachers in different subject areas can help these skills develop. The suggestions below are only a starting point. For more, see resources listed in the Factsheet 18.

Developing reading skills
- The most effective way to develop reading skills is to read. The school could encourage this by having a library with books at different reading levels. The NBSS website has a comprehensive listing of such books called READ – Engaging students with high interest and low readability books.
- Parents should be encouraged to see the benefits of the student reading at home on a consistent basis. For weaker readers, introduce parents to the practice of paired reading. They should be encouraged to maintain reading throughout the summer as progress made in school can be lost over the holiday period.
- Dyslexia Action has published a book Dive in – a book guide for the reluctant and dyslexic readers which gives guidance on books that might engage the reluctant reader as well as a guide for parents called Reading hints and tips for parents of reluctant and struggling readers. Website: www.dyslexiaaction.org.uk
- An active reading method such as the SQ3R, (Survey, Question, Read, Recite and Review) could be adopted as a whole school policy. See www.nbss.ie for more details. Once it has been explained, all teachers could ask students to use the method in their own subjects.
- Good readers retain a lot of what they read. Students with dyslexia, who may struggle with decoding the words, need to develop a way to make the information more real. Visualisation is a technique which turns the text into images making it easier to remember. See Cogan and Flecker’s strategies and worksheets on visualisation in their book Dyslexia in Secondary School.
- The Junior Certificate Schools Programme www.jcsp.ie has resources to support literacy development across the curriculum including keyword initiatives, reading challenges, classroom posters to promote reading and a teacher resource book.
- The increasing availability of textbooks as e-books where students can list and see the words at the same time helps with understanding the text.

Developing reading skills in the classroom
- Bookmarks or rulers help them keep their eyes focused on the text when reading.
- When choosing textbooks consider the readability level of the text. There are several readability tests available such as the Flesch-Kincaid Grade Level Readability Test. Some Junior Certificate texts had a reading age of 15 when checked. Most students in first year would have difficulty accessing such content. Factsheet 14 has information on readability tests including how to use Microsoft Word to calculate readability statistics.
- Check if the student is willing to read aloud in class. Some are very conscious of poor reading skills and anxiety makes their reading worse.
- If it is necessary for the student to read aloud, discreetly let them know the previous day the
section they will be asked to read, so they can prepare it.

- By introducing texts and giving cues about their content, teachers make them more accessible. If a science teacher shows that the chapter structure of the book divides the course into 3 sections of Biology, Physics and Chemistry, that key information is marked in bold print, that there is a revision section at the end of each chapter and how to use the index, it makes the book more approachable.

**Comprehension and learning strategies**

- When reading a chapter in a textbook, introduce the content, so the student becomes tuned in to the gist of the material and the keywords. This helps with comprehension.

- Effective summarising using summary maps, mindmaps and other graphic organisers helps the student to learn. The information is represented in a clear, logical manner, with key ideas highlighted. This helps with the recall of information and structuring written answers. The website: [www.pdst.ie/sites/default/files/Graphic%20Organiser%20Booklet.pdf](http://www.pdst.ie/sites/default/files/Graphic%20Organiser%20Booklet.pdf) has resources on many types of graphic organisers which can be used for different subjects.

- A note-taking strategy such as the Cornell method helps students to organise information. The page is divided into two columns. The left one is used for main ideas and key concepts. The right column is used for supporting detail. The Professional Development Service for Teachers (PDST) website ([www.pdst.ie](http://www.pdst.ie)) combines the SQ3R reading method and the Cornell note-taking method in Q notes and provides templates for their use.

- The Little Book is a way to get students to learn bits of information by teaching one another. Full instructions on creating and using Little Books are on the PDST website.

- Some students with dyslexia may find it difficult to make their own notes. Teacher notes or revision books give them access to key points for learning.

- Show students how to file notes using strategies such as colour coded files for different subjects, numbering pages, putting a heading on each page and having an index in the front of the file.

- Reduce the amount to be learnt by rote learning such as shortening lists of quotations in higher level English.

**Developing memory**

Many students, when asked how they learn a topic, say ‘I read over the chapter’ or ‘I learn my notes’. The student with dyslexia must make the material ‘their own’ to get it into long term memory.

Multi-sensory learning helps with the processing of the information. The more senses that are involved, the more likely the learning is stick. Triple strength learning involves seeing, saying and hearing. Quadruple strength learning involves the addition of writing.

Therefore they should say, hear, see and write as much as possible. The student should talk, listen, debate, use lists of questions, draw timelines or mind-maps, visualise, create mnemonics, or make up cards with key facts. The hard work involved in the active transfer of information sharpens the students’ understanding and it is a reliable route to successful learning. Once learnt, frequent revision of material is recommended.

The National Educational Psychological Service (NEPS) have produced handouts and tips for teachers and parents. They include a handout on Working Memory in the Classroom. It can be accessed on the Resources and Publications Page of the NEPS platform on www.education.ie.
FACTSHEET 9: DEVELOPING VOCABULARY AND WRITING SKILLS ACROSS THE CURRICULUM

A key difficulty for students with dyslexia is getting information down on paper. Teachers often say ‘Answers are too short’ or ‘Points are not developed’. There is a mismatch between oral and written ability. Their writing skills are not as automatic as they are for other students. Their writing is slower than their thinking, so good ideas and connections are lost as they struggle with spelling and writing.

**Developing Vocabulary**

- Choose dictionaries which have large print, preferably in dyslexia friendly fonts with plenty of space between entries. As some students may not remember the sequence of the alphabet, they could tag where the entries start with a different letter. A bookmark with the alphabet is also a good aid. Some editions of Collins dictionaries have the alphabet printed on each page.

- If an unfamiliar word appears in a text, show them how to pronounce it, explain its meaning and ask them to put it into a sentence so they become familiar with it. It could then be put into a subject-specific vocabulary notebook.

- The National Behaviour Support Service [www.nbss.ie](http://www.nbss.ie) has excellent resources on teaching vocabulary.

- The English Language Support Programme [www.elsp.ie](http://www.elsp.ie), while designed primarily for students whose first language is not English, has resources which equally well suit the needs of all students. In particular it has lists of key words and worksheets in many subjects such as maths, science, business and wood technology.

- The Special Needs Information Press has a literacy intervention programme which uses specific secondary curriculum words together with high frequency words to support word recognition and spelling. It can be used on a one-to-one basis or with groups. It is a free download at [www.snip-newsletter.co.uk](http://www.snip-newsletter.co.uk).

- The PDST website ([www.pdst.ie](http://www.pdst.ie)) has links to Web 2.0 Tools for creating resources for creating video, sound recording, crosswords, word searches, flashcards etc.

- Show how a word can be broken up into its base word, and suffix and/or prefix and how these change the meaning of the word, e.g. **helpful**, **helpless**, **unhelpful**.

- Knowing the Latin and Greek origins of words can help students understand new words. For example, the use of the ending ‘cide’ means killing, so it is easier to find the meaning of words such as **homicide**, **infanticide**, **herbicide**, etc.

**Developing Spelling**

- Check how the student says the word. Many, for example, say ‘I should of’ instead of ‘I should have’ and therefore spell it the same way.

- Divide new words into syllables and show how to pronounce the word and write it, e.g. **com/pre/hen/sive**, **post/trau/ma/tic**.

- Students will find it difficult to learn new spellings by simply copying words. A multi-sensory approach LOOK-PHOTO-COVER-PHOTO-WRITE-CHECK is a proven method for learning spelling.

- Mnemonics help them to have a rule in their head. Examples include: A piece of pie or Never believe a lie or *Emma has a dilemma*.

- Knowing the rules of Latin and Greek plurals can help them make sense of the spelling, e.g. why **curriculum** changes to **curricula** or **fungus** changes to **fungi**.

- Don’t ask them to correct and copy all the misspellings. It will not help. Explain one or two categories of error and ask them to do examples showing they understand what was wrong.

**Developing Writing (Presentation)**

- Check the basics. How does the student sit and hold the pen. A pen grip might help.

- Handwriting can be quite difficult to read. The teacher might put a note on an exercise ‘Improve handwriting’ but the student does not know how to do this. The reasons for the poor handwriting can include:
  - Letters too large or too small.
  - Spaces between letters/words uneven.
  - Slope of the handwriting inconsistent.
  - Writing does not stay on the line.
Not closing letters such as ‘a’ or ‘d’.

The teacher could ask the student to concentrate on correcting one of these difficulties at a time.

- Poor presentation of work can come from a lack of perception of space on the page. The student may need to be taught how to lay out work in steps and how necessary it is to use tools such as rulers/margins to improve layout.

**Developing Writing (Content)**

Key problems in written work of students with dyslexia are either they write off the point or do not write enough when answering. Train them to tackle writing essay-type answers in 5 stages: analyse the question, brainstorm, plan, write and check.

- **Analyse the question:** They do not have to include all they know on a topic but have to select relevant material to answer the question asked. Check they understand the meanings of words used in questions. Take class time to practise deconstructing questions and identifying what they have been asked.

- **Brainstorm** a topic. Headings should be brief and no attempt at structure at this stage so the mind is free to make associations. When brainstorming, use Post-its for points. It will help when organising ideas.

- **Plan:** The next stage is to plan the structure of the essay using the brainstorm. Common problems include lack of structure, haphazard planning or an uneven amount of writing on different aspects of the answer. Some ideas to help with planning
  - Making mindmaps or outline plans mean they can see the structure of the essay spatially arranged.
  - Give class assignments that require them just to hand in the planning for an answer.
  - In some subjects it is helpful to give writing frames/formats which show the structure of the answer required.
  - The software Inspiration has templates for answers in a number of subjects.
  - Lists of points to be included in an answer can prompt them to write at greater length.
  - Get them to make up three characters in great detail such as how they look, clothes, hobbies, family, school, jobs, friends, opinions etc. They could get pictures from magazines or the internet which will help them visualise the individuals. This makes it easier to compose a short story.

- **Write:** When they start to write, their thinking has been done. Now they concentrate on writing skills to express their ideas.

- **Check:** Students are more likely to pick up errors if they proofread aloud or by saying each word quietly. They can hear the mismatch between what they have written and what they meant to have said. They will pick up more errors if they proofread three times, once for content, once for spelling and once for grammar/punctuation.
FACTSHEET 10: MATHEMATICS: DYSLEXIA AND DYSCALCULIA

Some students find mathematics difficult to understand. It may be the result of dyslexia or dyscalculia. Dyslexia affects mainly the phonological processes which are essential for reading. Dyscalculia is a difficulty with understanding number. Students may experience difficulties in manipulating numbers, learning maths facts, mental calculation, estimation, whole-part relationships, place value concepts and problem-solving. One can have dyscalculia with or without having dyslexia and vice versa.

**How does dyslexia affect mathematics?**
Students with dyslexia may have some of the following difficulties:

- Poor memory and in particular working memory. Rote learning of tables is problematic. They perform badly at mental arithmetic.

- Their working memory often can hold only a small number of items at a time. As a consequence they cannot automatically perform mental calculations or may have difficulty remembering the steps in a complicated procedure such as long division or quadratic equations.

- Information may not have been well stored in long term memory and this may mean that they have not a solid grasp of basic facts which affects future learning.

- Confusion about direction or left and right can result in difficulties in many aspects of maths such as co-ordinate geometry, the number line with positive and negative numbers, decimals and division. Students may reverse words, numbers or symbols. Left to right confusion in maths is not helped by the fact that the usual way to work in maths is the opposite direction to that when reading.

- Where several operations are required in an arithmetic calculation, the student may have difficulty with sequencing and direction e.g. ‘Which number do you take from which’, or ‘Which procedure must be done first’. The student may have difficulty in remembering accurately the meaning of the symbols used in maths such as bigger than (>), or less than (<).

- One of the most stress-inducing situations is performing under pressure of time. The student with dyslexia may have a processing speed difficulty, which may affect mental calculations, the processing of verbal instructions and writing down answers.

**Difficulties with the language of maths**

- Procedures may have more than one way of being explained. Teachers may differ in their approaches. This can be confusing.

- Vocabulary is not always used consistently. *Subtraction*, for example, can also be indicated by the words *take away, minus, decrease, less than* or *difference*.

- Terms used in ordinary speech take on a different meaning in maths. *Mean* in English denotes *unkind, to represent* or *miserly* while in maths it has a precise and very different meaning.

- A student with dyslexia may have difficulty taking in instructions, particularly if these are long and complex and if specialist vocabulary is used inconsistently.

- Reading may be inaccurate. Words with similar prefixes such as *concave/convex* are easily confused. Students may have difficulty understanding and interpreting what is being asked because of the language in which the problem is presented.

- Students with visual difficulties such as visual stress and tracking may lose their place when working across a line of symbols and numbers, often skipping to the next line or place. They may find the page too crowded or too distracting to be read easily.

**Difficulties specific to Dyscalculia**

Students with dyscalculia have no natural understanding of number. They find it difficult to comprehend the relative size of number, for example, to know if 345 is bigger or less than 543. There is an inability to conceptualise and execute maths processes. The student may be complete
the calculation correctly but does not understand why it works. This means knowledge is not transferred to new problems. A student may experience some of the following difficulties:

- Not seeing patterns within numbers. They do not easily see that \(7 = 2 + 2 + 2 + 1\) and also \(3 + 4\) or \(3 + 3 + 1\).
- Finds it hard to visualise the overall ten structure of the number system e.g. 27 is twenty seven ones, two tens and seven ones or seven more than twenty.
- Generally counts in ones, often using fingers. Find it hard to count backwards.
- Poor working memory leading to difficulties remembering formulae and procedures.
- Does not remember number facts such as tables, or everyday applications of numbers in budgets or financial information.
- Does not easily generalise knowledge from one topic to the next topic in number work.
- Will experience considerable anxiety around maths. This intense fear and avoidance can affect their ability to learn maths skills and concepts.

**Can students make progress in maths?**

Progress in number work is often slow and students can regress. Nevertheless basic number work needs to be worked at to lessen as much as possible the difficulties experienced by students with dyslexia and dyscalculia. There are other areas in maths where students may not have the same level of difficulty such as algebra and geometry. Progress is possible if one adopts certain principles of teaching and learning strategies that have shown good returns.

There are a range of practical programs and apps that students may find useful for practising their techniques with numbers and for learning patterns, thus gaining confidence in using mathematical procedures.

**Websites**
The following websites are useful for students.

- **www.ixl.ie** IXL is aligned to the Leaving and Junior Certificate syllabus and provides comprehensive coverage of maths concepts and applications.
- **www.mathletes.ie** The Mathletes Challenge is a free Maths tournament based on the Khan Academy approach to learning and teaching Maths.
- **www.alison.com** Alison, which provides free online training, offers 250 Maths tutorial videos aligned to the Leaving and Junior Certificate Project Maths syllabus.
- **www.mathsexplained.co.uk.** This is a short series of videos for adults and children who experience difficulty with Maths. It is designed to address many of the barriers to learning students may have met before and allows time to learn. It is designed by Steve Chinn, author of *The Trouble with Maths*. There is a cost.
- **www.harrysmagictables.ie** An ingenuous way to learn multiplication tables using rhyme and pictures.

**Apps**

There are endless numbers of free apps that are excellent for learning the links and patterns between numbers. The benefit for the student is that the mistakes they make are not noticed by anyone else and they have the enjoyment of working towards their personal best.

Some examples of Apps are
- Maths Tricks
- Maths Workout
- Maths Pieces (Maths puzzle game)

- **www.teachthought.com/technology/stunningly-simple-way-explain-pi** is a gif animation which does what it says. It is a simple way to explain Pi.

All versions of MSWord from 2000 on have a built-in equation editor that can be used to complete mathematics work. It is possible to see demonstrations of this editor on YouTube.
FACTSHEET 11: TEACHING MATHEMATICS TO STUDENTS WITH DYSLEXIA & DYSCALCULIA

Essential texts are Steve Chinn’s The Trouble with Maths and More Trouble with Maths and in particular the sections dealing with diagnostic assessment and teaching strategies. He states that ‘Mathematics appears to be THE subject for school anxiety’. Anxiety will be greatly reduced by showing understanding of the difficulties, by building up competence through encouragement, by judicious marking and by assisting the student to set attainable goals. While the student’s difficulties present the teacher with a ‘problem’, the teaching process may present the student with a ‘problem’.

How can one best support the student with difficulties in maths?

The programme of remediation should be:

- Structured and cumulative, using multi-sensory methods.
- Individual to the student, based on analysis of their work and learning speed.
- Cyclical, with built-in regular revision of previously learned facts and procedures.
- Based on understanding rather than rote learning.
- The language of instruction should be clear, unambiguous, consistent and concise.
- New concepts should be introduced using simple examples.

General strategies for the classroom

- The use of diagnostic assessment as the basis for effective intervention is needed. This allows teachers to understand the student’s unique difficulties and to identify the exact processes that are not being understood or learned. Test scores are less important than identifying where the problems lie.
- Cognitive styles can influence how the student approaches a number task. Some think holistically and intuit the answer to the problem (the Grasshopper), while others prefer to move analytically step-by-step (the Inchworm). Teachers can help by understanding these styles and providing strategies to help.
- Students may be slow in reading questions. Even after decoding the words, they may not comprehend what is required. If explained, they have no problem doing the maths. It is a reading problem. Students may have more difficulty with Project Maths due to the increase in the verbal content of the paper.
- Practice and repetition: Students with dyslexia require more time rehearsing facts and procedures before these can be accessed automatically. This becomes the rationale for building in recurrent revision to a teaching programme. Progress should be evaluated against the student’s own scores, not those of the class.
- Understanding is the key to learning. For students who have poor rote memories and yet need to learn basic number facts, the key to learning is to ensure they understand why a particular procedure is chosen and the purpose of the task.
- The ability to visualise is a skill that many students with dyslexia use to great effect. Visualisation is developed through hands-on learning and the use of concrete materials. When they have internalised the vocabulary, the symbols and the procedures for calculating numbers they will be able then to automatically access the relevant facts for problem solving.

Practical Tips

- Teach organisation skills. The student may need to be taught how to lay out work on the page and to use a ruler and margins. Use squared pages. Test papers should be clearly set out, even to the point of one problem per page, to avoid distraction.
- The direction of calculation needs to be regularly reinforced through using concrete materials and colour coding. The student could use arrows to show in which direction the sum goes.
- Use mnemonics when possible. They provide a path through confusion. Examples include ‘The old American sat on his car and hiccupsed’ for Tan, Sin and Cos or ‘FED’ (foreign to Euro divide) for currency exchange.
• Put keywords into a vocabulary notebook to be used for reference and revision. Take time to teach maths vocabulary in class using multi-sensory methods. The Junior Certificate Schools programme [www.jcsp.ie](http://www.jcsp.ie) and the English Language Support Programme [www.elsp.ie](http://www.elsp.ie) have lists of key vocabulary in maths along with worksheets and activities to promote learning of the keywords.

• Use subvocalising by training students to say numbers quietly as they write them. The mismatch between the eye and ear alerts the student to inaccuracy.

• Allow more time than usual for working out and answering.

**Don’ts**

• Don’t overuse the blackboard. Minimise the amount of copying from the blackboard, possibly by providing photocopies. Don’t dictate a problem. It is unlikely information will be taken down accurately.

• Don’t overload homework. Set a maximum time for homework.

• Because maths is a progressive subject, it is unwise to move from one topic to the next unless the first has been understood and internalised.

**Websites**

• Engineers Ireland STEPS programme website ([www.steps.ie](http://www.steps.ie)) has maths revision videos, maths modelling, Project Maths support and real world maths for students. It also has downloadable maths worksheets for second level teachers.

• The National Centre for Excellence in Mathematics and Science Teaching and Learning website ([www.nce-mstl.ie](http://www.nce-mstl.ie)) has many resources for use in the classroom. It has a section on research and resource guides which are digests of current research and resources on good practice for the teaching of maths and science which will be updated twice a year.

• The Nrich programme based in University of Cambridge ([www.nrich.maths.org](http://www.nrich.maths.org)) aims to enrich the mathematical experience of all learners and has many resources for second level teachers and students.

**Useful References**

Butterworth, B. *The Dyscalculia Screener* [www.gl-assessment.co.uk](http://www.gl-assessment.co.uk)


Chinn, S. *The Trouble with Maths* (2nd Ed. 2012) Routledge


Emerson, J. & Babtie, P. *The Dyscalculia Assessment* (may be useful with 1st & 2nd Years).

FACTSHEET 12: TEACHING LANGUAGES TO STUDENTS WITH DYSLEXIA

The criterion for granting an Irish exemption is that the student is of average ability and has literacy scores at or below the 10th percentile. The same criterion applies to the granting of the NUI 3rd language exemption since 2012. This means many students with dyslexia do not qualify for such exemptions and are likely to study languages.

If students have had difficulty in the study of their own language, they may struggle when learning a new language. Difficulties may include pronunciation, phonics, tenses, spelling, sequencing words in the sentence, vocabulary development and grammar. Cogan and Flecker in their book Dyslexia in Secondary School, a Practical Handbook for Teachers, Parents and Students have an excellent section on teaching languages with many practical strategies and photocopiable worksheets. Many of the strategies below are based on this book and it is a key resource for language teachers.

Sounds
Many students face the challenge that vowel and consonants combinations do not make the same sound in the new language as they do in English. They need to practise seeing and saying the sounds until they recognise them automatically. Teaching the phonics of new sound combinations and giving worksheets on sounds is helpful.

Use of Dictionaries
Choose dictionaries for use that have large print, preferably in dyslexia friendly fonts with plenty of space between entries. As students may have difficulty remembering the alphabet they could tag where the entries for each letter start. A bookmark with the alphabet is a good aid. Collins Publishers have dictionaries with the alphabet printed on each page.

6.4 in Cogan and Flecker illustrates connections between French and English spellings.

<table>
<thead>
<tr>
<th>French</th>
<th>English</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>C</td>
<td>prix = price</td>
</tr>
<tr>
<td></td>
<td>choix = choice</td>
<td></td>
</tr>
<tr>
<td>U</td>
<td>L</td>
<td>faucon = falcon,</td>
</tr>
<tr>
<td></td>
<td>saumon = salmon</td>
<td></td>
</tr>
<tr>
<td>oire</td>
<td>ory</td>
<td>victoire = victory,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>gloire = glory</td>
</tr>
</tbody>
</table>

- Linking an action to the word makes it more memorable, such as smiling when saying sourir or saying je tousse when coughing.
- Using a vocabulary list with space to draw pictures helps with learning.
- When copying vocabulary, they will make mistakes. Also layout could be poor and handwriting difficult to decipher. Give printed vocabulary sheets.
- Vocabulary lists that are topic-based allow students to visualise which helps learning, and are preferable to alphabetical lists with no connections between words. Always place new words in a context and write them in a sentence.
- Highlighting words in pink and blue help students remember the gender of nouns.

Learning Vocabulary
Learning vocabulary is crucial to mastery of a new language. Dyslexic students may find the task exceptionally hard. They need structured programmes of vocabulary development and a multisensory approach which makes them see, say, hear and write words.

Suggestions when learning vocabulary include:

- The more connections dyslexic learners can make between their own language and the foreign language, the more confident they become. They are likely to find rote learning hard but may learn more easily through understanding a pattern. Fig.
**Verbs**

Students with dyslexia may find learning verbs difficult. They do not easily see or hear the segments within a word due to a deficit in phonological processing. As a result they are not alert to the ‘base’ word and prefixes/suffixes.

To help them identify the base word and the endings, give a piece of written material where they use a highlighter to mark the endings of verbs.

Another difficulty is that they often have a poor sense of time and this leads to problems with identifying tenses. They can be helped by identifying tenses in their own language. This can be done with cards with verbs written on them and they have to place them under the headings of the tenses such as past imperfect, present etc. Once they can identify and justify their decision by saying ‘This is the imperfect tense because it is a continuous action in the past’, they will be able to apply this learning to the new language.

**Grammar**

Sequencing difficulties may mean the student has difficulty with grammar and syntax. This is particularly true in languages where the grammatical conventions are very different to English such as Irish where the verb comes first. Cogan & Flecker suggest strategies such as:

- Give a sheet of model sentences, each of which illustrates a rule. This gives students an example against which to test their own work. Putting these on tape allows for multi-sensory learning.
- Use cards games to help build up sentences. Each word in the sentence is on a separate card and they arrange the cards to make sentences. The words could be colour coded for different parts of speech.

**Resources**


Crombie, M & Schneider, E. *Dyslexia and Foreign Language Learning* British Dyslexia Association Curriculum Series, Editors: Peer, L & Reid G.

**Websites**

[www.duolingo.com](http://www.duolingo.com)
This site provides interactive learning of languages in progressive stages with writing and speaking exercises. Languages include Irish, French, Spanish, German and Italian.

[www.rte.ie/exams](http://www.rte.ie/exams)
This website has links to French and German newspapers and radio stations.
Factsheet 13: Educational Choices for Students with Dyslexia

Students with dyslexia tend to have uneven abilities. In order to capitalise on their strengths, it is important that they navigate the school system by making the best educational choices and that schools allow as much flexibility as possible to enable students achieve their best.

**Standardised Testing**

Standardised tests are often used at entrance and prior to senior cycle. There are limitations to the use of such testing for students with dyslexia. The scores in the psycho-educational assessment are more valid and give an indication of potential as well as attainment.

The reasons why it is difficult to get an accurate result on standardised testing for students with dyslexia include:

- Speed of processing may be a weakness. It takes students longer to understand text and complete a test. They may not complete all questions within the time limits and yet, if given more time, they could do much better.
- They may be slower in reading instructions or deciphering the meaning in a sequence of instructions. This can be a big disadvantage in a timed test.
- In a maths test where questions are in a verbal format, it may become a test of their English and not their maths abilities.
- They may lack the vocabulary and have to take time to decode what the words mean or have to reread the questions to ensure understanding. Some students with severe dyslexia may not be able to read the questions, yet if the questions are read to them, they are capable of answering correctly.

The Public Appointments Service allows applicants with dyslexia additional time when taking standardised testing for recruitment and promotion purposes.

**Class placement**

What is the most appropriate class placement for the dyslexic student who typically has an uneven profile of ability?

- Mixed ability allows the student to benefit from the range of ideas and stimulation in the class.
- Setting allows the student to specialise in subjects they are good at.
- Streaming provides the worst scenario. They may be placed in a weaker stream due to poor performance at entrance and their poorer verbal skills. Such a class may not provide the challenge and stimulation to cater for their strengths.
- Where classes are streamed and maths is not set, the student may not be able to do higher level maths.

**Subject choice**

Subject choice is of critical importance for students with dyslexia. Students with no difficulties may have individual preferences about subjects but are likely to do on average equally well in a variety of subjects. Dyslexic students, due to their uneven profile of ability, may do exceptionally well in some subjects and may find others very difficult and face failure in them. Below are some of the issues to consider when choosing subjects particularly for the Leaving Certificate which is such an important gateway to third level courses.

- Many face similar difficulties in the study of languages as they have had in English. Phonics, spelling, sequencing of words and learning vocabulary all pose problems. If obliged to take the language they may drop to ordinary level whereas they would take higher level in another subject. This affects their points. NUI have tightened the criteria for granting an exemption in third language requirement in 2012. It states the student should be at or below the 10th percentile on two literacy scores in a psycho-educational assessment. This means more students having to take a third language in order to keep open the option of studying in the NUI colleges. In senior cycle, would it be more strategic for a student to study the 3rd language outside school at ordinary level and take a different subject at higher level in school?
- Subjects that require answers containing factual information may be easier than subjects in which answers are in essay type format. Therefore geography, business, or physics may be easier to achieve in than English or History.
• Subjects that require a large amount of rote learning or the learning of many unfamiliar words can pose problems. Therefore home economics or chemistry could prove to be easier than biology.

• The student may have strengths in visual-spatial skills and could do well in subjects such as technical graphics, art, technology and construction studies.

• Continuous assessment is of benefit to students with short term memory difficulties so subjects with marks going for projects/journals/practical work are of benefit.

**Choices after second level**

• DARE provides assistance by way of reduced points to some students when applying to college. The eligibility criteria for students with dyslexia are that they have an assessment less than three years old with a diagnosis of dyslexia and that two literacy scores are at or below the 10th percentile. For dyscalculia it is the mathematics scores that need to be at or below the 10th percentile. The CAO website has downloads giving guidelines about the tests to be included in the assessment.

• Many students will not qualify for DARE. Even so, they are still eligible for the supports in college and should apply to the disability services in their chosen college.

• Students with dyslexia may not do well in the broad-based Leaving Certificate where they may be taking subjects they find difficult to achieve in. Yet when at college when they can specialise in courses that suit their strengths, they can make good progress.

• Continuous assessment, semesters and project/practical elements in the course help the student to achieve when in college.

**NCSE Booklet**

The National Council for Special Education in association with the National Disability Authority has published an information booklet on the full range of post school education and training options for adults and school leavers with disabilities. It provides summary information on all the main programmes and supports available. It is downloadable at [www.ncse.ie](http://www.ncse.ie).
FACT SHEET 14: MAKING INFORMATION ACCESSIBLE – DYSLEXIA FRIENDLY STYLE GUIDE

For people with dyslexia, the ability to read and understand text can be affected by the way in which text has been written and produced. If producing information to be read by others, it is important to remember that up to 10% of readers may have dyslexia. Dyslexia friendly text improves readability and has a better visual impact for all readers, but especially those with dyslexia.

The following are some simple recommendations to help ensure that text is dyslexia friendly:

**Font Style**
- Use a san serif font such as Arial, Comic Sans, Verdana or Sassoon.
- Use a minimum of 12pt or 14pt font size.
- Use lower case letters. Avoid unnecessary use of capitals. Using all capital letters can make it harder to read.

**Paper**
- Use a coloured paper, even cream or off white. Some individuals have specific colour preferences, e.g. yellow or blue.
- Use matt paper to reduce glare.
- Don’t use flimsy paper which may allow text from the other side to show through. Good quality 80 or 90 gsm is effective.
- Avoid light text on a dark background.

**Presentation Style**
- Keep sentences and paragraphs short. Try to break text into short readable units.
- Use wide margins and headings.
- Use at least 1.5 line spaces between lines of text, if possible.
- Use bold print to highlight. Italics and underline should be avoided as they can blur text.
- Highlight important text in a box or use colour.
- Use bullet points and numbers rather than long passages of prose.
- Keep text left justified with a ragged right edge.
- Don’t use unnecessary hyphenation.

**Writing Style**

It is best to keep text as simple and concise as possible, to aid navigation and comprehension.

- Keep sentences short and to the point (15-20 words per sentence).
- It helps to imagine the reader is sitting opposite you and you are talking directly to them.
- Give clear instructions, and avoid lengthy explanations.
• Use short words and terms where possible – avoid unnecessary complex vocabulary.
• Good advice on producing text in ‘Plain English’ can be found online at www.plainenglish.co.uk/free-guides.html.

Readability Tests
There is a good briefing on readability tests at the following link: http://www.snip-newsletter.co.uk/pdfs/downloads/readability_briefing.pdf

Microsoft Word Version 2010 and later versions have a readability function which could be used to check the readability of handouts or of textbooks by typing in a selection of text from a book. How to access this feature:
Go To File, to Options, to Proofing. Tick the Readability Statistics.
Then take the document, do a spellcheck on it and when it completes the spell check, it will provide readability statistics. It provides a Flesch Reading Ease Score and a Flesch-Kincaid Grade level.

Flesch Reading Ease Score
A score between 90 and 100 would be easily read by eleven year olds
A score between 60 and 70 would be easily read by thirteen to fifteen year olds
A score between 0 and 30 would be easily read by university graduates.

Flesch Kincaid Grade Level
This test gives the grade level in USA schools. The SNIP newsletter suggests the following instruction to interpret this. Add 5 to the F-K grade and you have an approximate UK readability level. Remember that this is a simplistic method but provides a starting place when evaluating text.

Posters and Leaflets
• Keep design simple.
• Avoid background graphics which can make text harder to read.
• Keep essential information grouped together, such as the time, date and place of an event.

Universal Accessibility
Everyone processes information in a different way. While some people may prefer long wordy explanations, others may need alternative presentation styles.

• Include useful pictures and graphics.
• Flow charts can help to explain procedures.
• Lists of “do’s and don’ts” can be more useful than long passages of text.
• A glossary will help to explain abbreviations, acronyms and jargon.
• Longer documents should have a contents guide at the beginning and an index at the end.
• It is important to provide documents in a timely manner. Teachers and lecturers should make handouts available before the class begins.
FACTSHEET 15: COMPUTERS AND ASSISTIVE TECHNOLOGY

Developments in computers and assistive technology provide essential and significant help to students with dyslexia.

The Department of Education and Skills circular (circular 0010/2013) outlines a scheme of grants towards the purchase of essential assistive technology equipment for pupils with physical or communication difficulties who could not access the curriculum without such support. An application is made to the National Council for Special Education and should be accompanied by professional reports such as a psycho-educational assessment which states how the equipment will be used.

The circular outlines a staged approach to the provision of assistive technology. As part of this approach it states:

‘Many students now have personal/table computers, or smart phones with equivalent capability, which may have been purchased for them by their parents or alternative sources. Where pupils with special educational needs, or with distinct educational requirements, have personal computer with relevant educational software or technological packages, which can assist them in schools, schools should allow those pupils, subject to agreement and supervision, to use such devices in schools. It will be a matter for schools to ascertain the relevance of the educational equipment or software being used and to supervise its use in school, in accordance with the schools policies on the use of electronic equipment in schools’.

This means that parents could approach a school to ask if the pupil could use their own laptop or tablet in the classroom if it helps them in the classroom.

If the computer and/or software are bought by parents for home/personal use, the VAT can be claimed back using Form VAT 61A from the VAT repayments section. The form can be downloaded online from www.revenue.ie

Some simple low cost technology

- Typed rather than handwritten notes. Font size should be a minimum of 12 or 14, using san serif fonts such as Arial or Comic Sans.
- Photocopy onto coloured paper. This reduces glare for some people. Coloured overlays placed on the text when reading can also help.
- Colour coding key information such as the different parts of speech when learning languages.
- Provision of visual information such as pictures, diagrams, charts or mindmaps.
- Use of tapes, CDs, DVDs
- Some students, who learn best by hearing, benefit from tape lectures or recording their own notes. An MP3 player can be used so they can listen to their own notes. Digital copies of textbooks are available from some of the educational book publishers.
- Electronic dictionaries such as the Franklin Spellmaster. If the student makes a reasonable phonetic attempt, there is a good likelihood of identifying the correct spelling.

Developing literacy and numeracy skills

There are hundreds of excellent programmes available which support the development of skills in reading, phonics, spelling and maths. Examples of some of the programmes include:

- Workshark based on the Alpha to Omega programme which uses games to develop reading and spelling skills.
- The Lexia reading series helps students in areas such as phonemic awareness, decoding skills and comprehension.
- The Gamz Player CD is based on popular swap games and supports reading, phonics and spelling.
- Numbershark, Mathmania, BBC Maths Workshop Series, IntelliMathics are all useful programmes for numeracy difficulties. See Factsheet 10 for more websites to help with numeracy.
Reading support/accessing text
Accessing curriculum textbooks can be challenging for students with reading difficulties. If their reading is reasonably competent but occasionally they may come across words they cannot identify, a reading pen is good solution such as the Quicktionary reading pen or the Hanvon TextReader/eDictionary Pen which enables words to be scanned and read. It also has a dictionary feature. It also allows material to be scanned and transferred later to a computer.

Students with more significant reading difficulties may need to go for complete text-to-speech options. Screen reading software reads any text on the computer screen, whether it is text the student has typed in, emails, webpages or the pages of a textbook which has been scanned in. The reading voice and speed can be adjusted. Text scanned in can be converted to an audio file and downloaded to an MP3 player. Examples of such software are Claroread, Kurzweil, Read and Write Gold and TextHelp. Mobile versions of this software are available (on a USB drive) allowing the student to use it on any compatible computer.

Writing support
Students with dyslexia are more likely to produce better work on a computer than if they are writing by hand. The computer produces clear legible text. Spelling can be checked using a spellchecker. Editing and rearranging text is easy, which is of particular help to students who have sequencing difficulties.

Screen readers, which read what is typed in on the screen, are a useful tool to support writing. They allow the student to hear any errors such as a misspelling or an incomplete sentence. Claroread and TextHelp have a homophone checker. Possible homonyms are identified in the text and guidance is given to help choose the correct word. Both programmes have word prediction.

Software such as Textease, Co-Writer and Penfriend support writing with features such as talking spellcheckers and word prediction which can increase the speed of written production. Clicker is another useful programme where the student can write with whole words and even pictures.

Voice recognition software is ideally suited to older students who have to produce longer pieces of written work. All instructions can be given verbally. The computer types as the student speaks. Dragon Dictate Naturally Speaking is the most commonly used programme of this type. Accuracy does increase with usage. To get the best from these programmes, a powerful modern computer with a good soundcard and microphone is essential.

Organisational and Study Skills
A very common feature of dyslexia is poor organisation skills, which affects many areas such as timekeeping, planning study timetables and especially organisation of information.

Mind-mapping software programmes such as Inspiration are very useful tools for students with good visual spatial ability. Students use it to make visual revision aids, brainstorming, concept mapping and planning essays.

Wordswork is a multi-sensory programme on study skills. While designed primarily for undergraduate students with dyslexia, it is relevant for students at second level. Topics covered include essay writing, memory strategies, exam revision and time management, with sections on reading, spelling and grammar.

Students may find a PDA (Personal Digital Assistant) or electronic organiser helpful to keep track of course requirements and to-do lists, study timetables, and sports/social commitments.

iPad/Android tablets
While Apps cannot provide the full range of facilities found on computers and laptops, they can be very helpful and have had a major impact in the last few years and are used increasingly in teaching and learning. With over one million Apps in the App Store for the iPad alone, it can be bewildering to identify what might be most appropriate for an individual student. The following websites provide guidance and help for teachers and parents.

The British Dyslexia Association (BDA)
The BDA website www.bdatech.org is updated regularly. It provides advice on choosing technology and looks at Apps under the following headings

- Reading options for the device.
- Apps to support reading and study.
- Writing with Text to Speech Options.
- Speech to Text.
- Writing and Writing with Stylus.
- Planning.
- Drawing.
- Scanning and OCR.
CALL Scotland
CALL Scotland, which is based in the University of Edinburgh, provides information on communication and assistive technology for people with disabilities. It has two very useful resources.

iPads for Communication, Access, Literacy and Learning (iCall) (2nd Ed.) is a guide to helpful information and resources for iPads which is a free download at www.callscotland.org.uk/resources/books/

Topics addressed are:
- Getting to grips with the iPad.
- Apps to support teaching and learning.
- Accessibility options.
- iPad accessories.
- iPad resources.
- Managing and implementing the iPad.
- Glossary of terms.
- Managing curriculum materials between Windows and the iPad.
- iPad management using iTunes – some useful tips.

iPad Apps for learners with Dyslexia/Reading and Writing Difficulties is a visual guide to Apps and is downloadable as a poster or a A4 page. This 'Wheel of Apps' is not comprehensive but attempts to identify relevant Apps and to categorise them according to the difficulties faced by the pupil with dyslexia. Dyslexia indicator Apps do not fit within the Wheel, but links to them are given on the page. They are not formal screening tests, but give an indication that a learner may have dyslexia and that this should be investigated. Available for download at www.callscotland.org.uk/resources/posters-and-leaflets/iPad-Apps-for-learners-with-dyslexia/

Dyslexia, Supporting Students by Jeanette Davies is a free download for the MAC or iPad in the iTunes Store. The information in this multi-touch book is designed to demonstrate how the teacher or parent can utilize the built-in accessibility features of the Mac and iPad to support the student with dyslexia.

Digital copies of books
Assistive technology is changing very quickly with the advent of tablets. Digital copies of books are very useful for the student with dyslexia as it enables them to see and hear the text. The educational publishers make digital copies available. It may be the PDF file of the book with images and graphics stripped out or it may be the eBook version of the text.

However, at the moment there is a problem with the integration of iPad assistive technology software with the eBook version of the Irish textbooks. This means that in most cases the text book cannot be read aloud.

Below is how to access digital copies of books of the main publishers as of December 2014.

CJ Fallon
If contacted by teacher or parent, they will create and assign an eBook account free of charge for textbooks used in the classroom. If they feel it is being abused, they can revoke the access. The books are same as the printed version.

They are working on integration with the iPad assistive technology. At the moment the way to access it is as follows:

On Ipad, go to Setting >General>Accessibility>Turn on Speak Selection>Set Accessibility Shortcut to VoiceOver(triple click home). This is important as it allows you to toggle VoiceOver on and off. Next open a title in your CJFallonReader app, go to a page you want to read, next click the “T” icon top right of screen, next triple click the home button, then tap the paragraph you want to read and tap again. Triple click to turn VoiceOver off.

Other Educational Publishers
The other educational publishers such as Edco, Folens and Gill & McMillan provide pdf versions of textbooks which are accessible to readaloud software. In general they require proof of purchase of a copy of the book and the first page of the assessment report. Contact publishers for full details of how to apply.

Courses and online resources
Assistive Technology Videos.
UCC Assistive Technology Outreach Programme offers training to secondary students, parents and educators in the UCC catchment area in how to
use assistive technology (AT). They have also made video tutorials on using AT available at www.ucc.ie/en/dss/callouts/resources/videos/. These include tutorials on the following:

- An overview of AT for writing difficulties
- Mindmapping, an introduction
- Using mindmapping for school work and homework
- Touchtyping advice and resources
- Using MS work to help with reading difficulties.

**Dyslexia Association of Ireland** [www.dyslexia.ie](http://www.dyslexia.ie)

DAI run Tablet Technology and Dyslexia Workshops in their offices in Dublin. The aim of the interactive workshop is to equip individuals with knowledge of how tablet technology and apps can be used to the benefit of people with dyslexia. A range of different apps and tablet features is demonstrated.

**UrAbility** [www.urability.com](http://www.urability.com)

UrAbility provides the following:

- A technology review session with the parent and child which lasts an hour and a half to ensure that they are using the correct assistive technology (AT) to suit the child’s needs. The review sessions are held around the country on different dates. UrAbility can also source the software that suits the student best.
- Camps for students who have specific learning difficulties (dyslexia or dyspraxia) to help them to learn how to use assistive technology to enable learning. The Camp includes a session for parents on AT.
- Courses for teachers on how to use assistive technology to its full potential.
FACTSHEET 16: HOW PARENTS CAN HELP THE STUDENT WITH DYSLEXIA

Consistent parental understanding, support and interest are vital components for the student’s progress. Parents may need support and advice but they have a major contribution to make in achieving effective outcomes. The Understanding Dyslexia DVD has a section which gives comprehensive advice on how parents can help. Factsheet 17 has study tips for students. However the key contribution which parents make is to provide a safe and reassuring home.

Tips on organisation of homework
- Negotiate a homework timetable that takes into account any sports or other commitments. Once agreed, put it up in the study area and expect that it will be kept to. The website www.studentenrichment.ie has templates for timetables and goal setting.
- No distractions such as television or mobile phone.
- At a desk/table, with good light.
- Plenty of space with shelves to organise books and files.
- All necessary equipment that help with good filing and multisensory learning such as pens, pencils, crayons, staplers, punches, highlighters, plastic wallets, index cards, etc.
- Show the student how to colour code their timetable with different colours for different subjects.
- Colour coded files/copies, e.g. red for English, yellow for Maths etc.
- Calendar or planner on the wall with key dates marked in such as deadlines for assignments, exams, projects, as well as sports and other commitments.

Tips on routines
- Ensure that the homework journal is used to take down homework in each class of the day. Homework consists of both written and learning work and that both are written in.
- If necessary, the student could write in the names of subjects in the journal the night before to make it quicker to take down homework.
- Get the student to use the homework journal to pack the school bag for the next day.
- If homework has not been entered accurately, does the student have the phone numbers/emails of reliable students who could be contacted.
- Is there a school network which might have homework tasks listed on it?
- Negotiate that the student does a weekly ‘housekeeping’ session where the bag is checked and notes are filed.

Communication with the school
Good communication between the school and parents is an invaluable support and can be fostered by the following:
- Ensure each teacher is aware of the difficulties the student may face. This could be done by sending the summary of the report or key points from it.
- If a teacher is absent for a period of time, send the summary into the substitute teacher.
- If the student does not read fluently aloud, teachers need to be aware of this before the student enters the school in September in 1st year.
- Monitor the homework journal for teacher comments and use it yourself to communicate with teachers.
- Ask teachers for written notices of events.
- Inform yourself about who is the key teacher to contact about supports such as accommodations in exams or subject choice.
- Inform the school if the student is stressed or homework is taking an excessive amount of time.
- Ask if the student could sit in the front of the class if it helps with concentration.
- Be informed about educational choices such as subject choice at school, types of Leaving Certificate programmes such as the LCA, exemptions from the study of Irish or a third language, reasonable accommodations in state and school examinations and be ready to act as an advocate for the student to access appropriate supports.
- If students in senior cycle are applying to DARE (Disability Access Route to Education), they need a recent assessment (within 3 years). On the download section of the CAO website www.cao.ie there is a link to DARE. This link has several downloads which detail the eligibility criteria and specify the tests which should be part of such an assessment for DARE.
- Suggest through the Parents Association that the school organise an in-service for teachers on dyslexia and/or a talk for parents on how to help students with dyslexia.
**Tips to help with reading**

- Reading is a key skill at second level. Parents can foster it by ensuring the student reads for about 20 minutes every day. Paired reading may help or reading books with an appropriate reading level. The school library or local library may have literacy reading schemes with books with more adult content but which have been abridged and vocabulary simplified.
- Reading should continue through the summer, otherwise reading may regress.
- Listen to tapes of books on long car journeys so they are not missing out on the stories their peers are accessing through reading.
- Dyslexia Action has published a book *Dive in – a book guide for the reluctant and dyslexic readers* which gives guidance on books that might engage the reluctant reader as well as a guide for parents called *Reading hints and tips for parents of reluctant and struggling readers*. Website: www.dyslexiaaction.org.uk

**Tips for helping learning**

- Be in the background when homework is being done to monitor that it is done effectively and to help sort any difficulties out. This should reduce as routines become established. Is the homework of good quality? Is the layout and writing clear?
- Help them develop memory strategies. Students with dyslexia must make the material ‘their own’ to get it into long term memory. Receiving information in one channel such as language and expressing it in another such as a mindmap helps information transfer from working to long-term memory. Possible learning activities include talking, listening, debating, answering questions, drawing timelines or mind-maps, visualising, creating mnemonics or making up cards with key facts.
- If there are difficulties, don’t do the homework for the student. Teachers need to be aware if students cannot cope.
- If teenagers are not feeling confident, they may be defensive and reluctant to accept help. Ask them for their ideas on how you can help. Possible strategies to help include:
  - Test new vocabulary which has been learnt.
  - Listen to the student explain a new topic which has been learnt.
  - Ask questions based on the textbook or revision book.
  - Help with the planning of an essay.
  - Show them how to make clear concise notes with bullet points, colour, numbering of points and headings. Then make sure the notes are filed.
- Get tapes of texts for English, so that they can hear and read the text at the same time.
- Some educational publishers may make digital copies of textbooks available.
- Revision books can help by giving access to keypoints for learning. There are also websites that have on-line tutorials, revision notes available in different subjects. They are listed on Factsheet 17 for students.

**Tips for home life**

- Help the student be organised in the house. Have consistent routines. Make lists of jobs and chores to be done.
- Keep a masterfile where all the school reports and assessments are held. The assessment report is an important document and may be needed in future years.
- Be informed about dyslexia, read books, attend lectures or courses and talk to professionals so you are aware of what is available and can help.
- Encourage the development of keyboarding skills.

**Assistive Technology**

Assistive Technology (AT) gives invaluable support. See Factsheet 15. There is so much hardware and software available that it is easy to be overwhelmed by the choice. Ask teachers for advice or get a demonstration/free downloads to find out what is most appropriate and useful.

- These websites help:
  - www.dyslexia.ie
  - www.bdatech.org.uk
  - www.callscotland.org.uk
- UCC Assistive Technology Outreach have online videos showing how to use AT at www.ucc.ie/en/dss/callouts/resources/videos/.
- Dyslexia Association of Ireland (www.dyslexia.ie) and UrAbility (www.urability.com) have courses on AT.

**Tips for developing self esteem**

Self-esteem means young people feel competent and, when faced with new challenges, they feel that they can achieve. It is fostered by taking interest in their activities and giving genuine praise for achievement.

- Encourage them to partake in activities that will yield success. Focus on their strengths. It might be in sports, drama, music, art, scouts, or voluntary social activities.
- Spend family time together where they contribute and are listened to. Family discussions over meals or on outings can promote social skills and verbal
expression. Watch TV programmes, films or the News together and give them an opportunity to express their opinions. Board or interactive games will help develop communication skills, problem solving and decision making.

- Ask them to contribute to decisions about planning holidays or home decoration.
- Be open about the fact the student has learning difficulties. Reassure them that they can talk to you and you will listen and try to help.
- Discuss the assessment with them, judging the amount of information that is appropriate for their stage of development and how much they will understand. By the end of second level they should know how the dyslexia affects their learning and their learning strengths and weaknesses. They will need this information to be able to make appropriate decisions and to maximise learning.

**Key dates**

**Beginning for First Year**

- Give all teachers a profile of the student’s abilities, strengths and weaknesses along with the recommendations on the report. Do this every year.
- Discuss with the school if reasonable accommodations are an appropriate support for the student. If they are, check they are in place for house examinations.

**Third Year**

- Applications for reasonable accommodations (RACE) in Junior Certificate examination are made in October/November.
- If the student has been granted accommodations for the Junior Certificate, check that they are in place for the Mocks in February.

**Third Year or Transition Year**

- Apply to NUI (National University of Ireland) for 3rd language exemption if appropriate. If the student is exempt from the study of Irish because of a specific learning difficulty, the third language exemption will be granted. If not exempt from the study of Irish, the criteria for the 3rd language exemption are that the student is at or below the 10th percentile (standard score 81) in two literacy areas.

**Fifth Year**

- If the student intends to apply for DARE (Disability Access Route to Education), a new assessment will be required. It needs to be less than three years old on February 1st of the year the student applies to the CAO. The assessment may be used when applying for RACE in the Leaving Certificate.

- If applying for RACE, keep the scripts of Christmas house examinations to accompany the application.
- The applications forms for RACE for the Leaving Certificate are completed and submitted by the end of May in 5th year.

**Sixth Year**

- Students interested in applying for DARE should make a CAO application by 1st February.
- They should disclose their disability or learning difficulty by correctly filling in Section A of the Supplementary Information Form by March 1st. If they wish to be considered for the DARE scheme, they must tick the Yes box on Question 1.
- It is the student’s responsibility to ensure that the school reference (Section B) and evidence of disability (Section C) are submitted to DARE by April 1st.
- It is the student’s responsibility to ensure that the CAO are aware of the existence of language exemptions.
- Full details of DARE is available at www.accesscollege.ie.
FACTSHEET 17: STUDY TIPS FOR STUDENTS WITH DYSLEXIA

Dyslexia may mean that you learn in a different way. While dyslexia may affect your reading, writing and spelling, it might also be hard to remember new information or to be organised. Even when you work harder than others in the class, it may be a struggle to get good results. You may know more than you can put down on paper. The assessment report shows learning strengths and weaknesses. Using your strengths, it is possible to find alternative ways to learn. Find out what works for you when accessing information, storing it in your memory and showing what you know. Pick out what will work for you from the tips below. Your teachers are there to support you. Ask them for help and advice. There is a form called ‘Asking for Help’ which is available on the download section of the website www.dyslexiacourses.ie. This helps you pinpoint exactly what supports would help in the classroom and communicate them to teachers.

**Organisation.**
- Study at a desk/table with plenty of room, shelves for files and books and with all necessary equipment present, such as staplers, highlighters, colour pens, etc.
- Take small breaks during the study period.
- Colour code the subjects in your timetable.
- Use the same colours for your files/copies, e.g. yellow for English, red for Maths.
- Have a ‘housekeeping’ day once a week where bags are cleared and notes are filed. If necessary, include the organisation of your locker in school.
- Always put the subject, date and topic as a heading on notes. Don’t fold them.
- Have no distractions in study area such as TV or mobile.
- A calendar on the wall, with key dates for exams, school work, sports and social life.
- Study/revision timetable on the wall. This should be one that you can keep to. The website www.studentenrichment.ie has templates with blank timetables.
- Use the homework journal to take down homework and to pack the bag for the next day.

**Motivation**
- Study at the same time and in the same place so a routine is established.
- A tidy and organised study area helps you settle. It also avoids wasted time looking for items.
- Have a ‘to do’ list on the wall, so if you think of something, you can write it down. Have a revision plan detailing all topics for revision for an exam. Mark them off as you revise and see your progress.
- Motivation grows on success, so planning and meeting targets will encourage you.
- Use multi-sensory methods to learn. This means activities such as writing, highlighting, talking or making mindmaps. It is harder to be distracted if learning is activity based.
- Set clear goals. Long term goals are key life objectives such as getting the points for your chosen course in college. Medium term goals are the stages in getting to that point such as results in house exams. Short term goals are for this evening’s study period. SMART goals help use study time in the most effective way. Again the website www.studentenrichment.ie has templates for long, medium and short term goal setting.
- Build in rewards for meeting goals, such as small treats like a small break or cup of coffee.

**SMART Goals**
SMART goals are:
- **Specified:** Sets out exactly what is to do and when.
- **Measurable:** Criteria for knowing you have achieved the goal.
- **Action based:** What are the actions you need to do?
- **Realistic:** It is possible for you to achieve the result within the time.
- **Time-based:** Sets the time frame to achieve the goal.

Instead of a general goal such as ‘To read over the chapter on the Reformation three times’ SMART goals are statements such as:
- To learn 15 new words in French, their gender and spelling. (20 minutes)
- To learn 5 reasons for the Reformation, 6 key facts about Luther’s life and 5 key beliefs he had. (25 minutes)
- To draw a picture of a microscope and label the ten key parts of it. (25 minutes)
**Reading**
Reading is a key skill for second level and for college.
- Reading improves, the more you read. Reading regularly will develop reading stamina, speed and comprehension. Read for 20 minutes a day as a routine. Find reading material that you are interested in whether it is newspapers, magazines or books.
- If it helps, use a ruler to keep your eye on the line of text. Have a pen or highlighter in your hand.
- It reduces errors in reading if you say the words quietly to yourself. This way you see and hear the words on the page.
- Ask for advice if you are given lengthy reading lists so you can identify the key texts to read.
- Get tapes of English texts so you can listen as well as read the text. Look at the websites listed below. There are video summaries of Shakespearian plays and No Fear Guides which have the original text and a modern English translation side by side. There are revision notes and on-line tutorials in lots of subjects.
- Use a reading method for texts such as SQ3R.

**SQ3R Reading method**
SQ3R stands for Survey, Question, Read, Recite and Review and is a reading method to improve comprehension. It involves the following steps.
- **Survey** the text by looking at title, headings, pictures, opening and closing paragraph.
- **Question** what you expect to know after reading the text.
- **Read** actively looking for answers to your questions.
- **Recite.** See if you can answer the questions raised. The more senses involved in reciting, the more likely the learning is stick. Triple strength learning involves seeing, saying and hearing. Quadruple strength learning involves the addition of writing.
- **Review.** In the following days and weeks check you can still answer the questions.

**Spelling/Vocabulary**
- Have a dictionary to help with new vocabulary. Put a tab for each section beginning with a new letter and have a bookmark with an alphabet on it so you can find words easily. Some Collins dictionaries have the alphabet printed on each page.
- Develop mnemonics for spelling words you confuse.
  - Dilemma Emma has a dilemma
  - Separate There is a rat in separate
- Keep a vocabulary notebook for each subject.
- Become a word detective. Lots of longer words come from Latin and Greek. If you understand their meanings, you may be able to understand new words you might come across. For example, if \( \text{aqua} = \text{water} \), \( \text{phobia} = \text{fear} \), \( \text{hydro} = \text{water} \), \( \text{bi} = \text{two} \), \( \text{lateral} = \text{side} \), \( \text{--cide} = \text{killing} \), you might be able to guess the meaning of the following:
  - Aquaphobia, hydrophobia,
  - Hydrotherapy,
  - Bilateral, multilateral,
  - Herbicide, infanticide, insecticide.

**Notetaking**
- Revision books can help if you find it difficult to summarise textbooks.
- Can you bypass taking notes in class so you can concentrate on understanding what is being said. This can be done by photocopying the notes of another student.
- When taking notes, mark words you cannot spell and move on. Ask the teacher later.
- Go over the notes that night, and redo them if legibility is a problem.
- Ask for time to take notes/diagrams in class.
- Use plenty of space, headings, colour and bullet points when making notes.
- Take time to make good notes/mindmaps as they can help in structuring answers.
- Graphic Organisers and Mindmaps help organise your thinking, help when learning/memorising material and then help in structuring written answers. The Assistive Technology Outreach Service at UCC has online videos showing how to make use of mindmaps. ([www.ucc.ie/en/dss/callouts/resou rces/videos](http://www.ucc.ie/en/dss/callouts/resources/videos)).

**Learning**
- Material/notes need to go from short term into long term memory. This involves hard work to make the material your own. This does not happen by reading alone. It means changing the channel the information comes in by talking, listening, debating, drawing, visualising, writing or making mindmaps or flashcards.
- You need to understand what you are learning as rote learning is not likely to work for you.
- If there are specific facts, dates, definitions or words to be learnt, make study cards with the new word on one side and the explanation on the other side. Keep them in a box and test yourself often.
- Mnemonics are devices for helping to memorise key facts. An example is FATDAD.
for the 6 counties of Northern Ireland or Richard of York gave battle in vain for the colours of the rainbow.

- Visualisation means making a mental image of a text, making pictures in your mind’s eye. Here is an example. The colours in the wires in the electric plug are blue, green/yellow, and brown. See the image of a Teddybear (brown for the live wire,) on green grass (green for the earth wire) and a blue sky (blue for the neutral).
- It is only possible to memorise a limited number of unrelated facts, so organising a list of facts into groups help.

Writing
Writing involves so many tasks, which the student with dyslexia finds difficult, that there is often a mismatch between oral and written work. Written answers may be too short, lack fluency or do not answer the question asked. When you concentrate on the writing rules such as spelling, handwriting and punctuation, ideas suffer. When you are thinking and making interesting connections, the writing skills suffer. Divide the task into five stages.

1. Understanding the question. Take time to analysis the question and understand what is being asked. This is important. Very often students with dyslexia write everything they know about a subject down, rather than using their information to answer the question being asked.
2. Brainstorm. With an empty sheet of paper, put down all ideas that come into your head with your mind running free and making associations.
3. Planning. Using the brainstorm, select and connect ideas. Plan and structure the answer. The plan will display pattern of the essay as a whole, and where different points are linked. It is easy to see the balance and sequence of the essay. Include references and points to be made. Templates which show how to structure an answer help with planning. Examples are available with Inspiration Software.
4. Write. Now that thinking has been done, the task is to write. The comprehensive plan keeps your writing to the point. Use signposts for the reader to understand the structure such as words like ‘however’, ‘finally’. Don’t stop for spelling at this stage. Get your ideas down.
5. Check. Proofread three times, once for spelling, once for punctuation and paragraphing, and once to check the content is to the point and well structured.

Here are some ideas which might help with writing.
  - Make up three characters in great detail such as how they look, clothes, hobbies, family, school, jobs, friends, opinions etc. Even collect photos of what they might look like. It makes it easier to compose a short story if you have the characters already in your head.
  - Use your five senses when writing a description of a scene.
  - When answering questions think of 3 points to support your answer, then 2 references /quotes to back up each point.
  - Have checklists of points to prompt you to write more. For example when writing about a person in history, think about clothes, food, farming, houses, rulers, religion, schools, beliefs, death.

Revision

- Students with dyslexia do not cram for exams well. A good revision programme avoids the feeling of being overwhelmed.
- The first step is to know what is coming up in the exam. Ask teachers for the topics which are to be examined. Check you have the necessary sets of notes, text books and revision books. Make out a master sheet of what has to be done in each subject. Mark off topics as you revise and you see the progress you are making.
- Make out a revision timetable showing each day of the week and the time allocated to study. Then allocate subjects to these times. Ensure that you have time for all your subjects over the week.
- Get up early the morning of an exam and revise from 6.00 am to 8.00 am. It means the information is fresh in your mind.
- Revision is an active process and involves hard work. The multi-sensory methods of seeing, hearing, listening and writing all help the retention of material learnt.
- Be familiar with past examination papers and how questions are framed. Practise answering questions. When examiners correct papers, they have a marking scheme which shows
them what to look for and award marks on the paper. These schemes are available for students to look at on website www.examinations.ie under Examination Material Archive.

Key dates for students

Third Year
- Applications for reasonable accommodations (RACE) in Junior Certificate examination are made in October/November.
- If you have been granted RACE for the Junior Certificate, check that the school will provide the same accommodation in the Mocks.

Third Year or Transition Year
- Apply to NUI (National University of Ireland) for 3rd language exemption if appropriate. If you are exempt from the study of Irish on the grounds of dyslexia, the 3rd language exemption will be granted. If you are not exempt from Irish, the criteria for the 3rd language exemption are that scores in the assessment report should be at or below the 10th percentile (standard score 81) in two literacy areas.

Fifth Year
- If you intend to apply for DARE (Disability Access Route to Education), a new assessment will be required. It has to be less than three years old on February 1st of the year you apply to CAO.
- If applying for RACE, keep the scripts of Christmas house exams for the application.
- The applications for RACE for the Leaving Certificate are submitted in May in 5th year.

Sixth Year
- If you are interested in applying for DARE, you should make a CAO application by 1st Feb.
- You should disclose your disability or learning difficulty by filling in Section A of the Supplementary Information Form by March 1st. If you wish to be considered for the DARE scheme, you must tick the Yes box on Question 1. Take time with the personal statement to make the best possible case. Have it proofread.
- It is your responsibility to ensure that DARE receive the school reference (Section B) and evidence of disability (Section C) by April 1st.
- It is your responsibility to ensure that the CAO are aware of any language exemptions.

Useful websites for students on study skills, revision notes and exam preparation.

General sites
www.rte.ie/exams
This site includes advice and analysis of exam papers across many subjects. It has podcasts giving advice in the final run-up to the exams in June. It has revision notes in some subjects.

www.skool.ie
Resources include
- Podcasts in French and Irish to support LC aural and oral exams.
- Revision notes in subjects at JC (English, Maths, Science, Business, French, Irish, History, Geography, and Home Economics) and LC (Biology, Chemistry, Physics, German, Geography, Home Economics and Applied Maths.)
- Revision Checklists so that there is an overview of the topics in a subject.
- Interactive lessons in Business and French at LC and English, Maths, Science, Business, and French at JC. The JC English includes poetry and improving English skills in grammar and expression.

www.sparknotes.com
Provides
- A range of literature study guides including a wide range of Shakespearian plays and many novels.
- A number of animated video guides to some of the plays (Hamlet, Macbeth, Othello, Romeo and Juliet, etc.) and some novels (To Kill a Mockingbird, The Adventures of Huckleberry Finn, 1984 etc.).
- There are also No Fear Guides for some of the plays (Merchant of Venice, King Lear, Macbeth, Hamlet, etc.) and some novels. These provide the original text on one half of the page, with modern English language version on the other half of the page.
- There are study notes on subjects such as Biology, Chemistry, Economics, Physics, History and Maths. It includes a section on poetry with specific poets such as Dickinson, Donne, Eliot, Frost, and Yeats.

www.studentenrichment.ie
Study tips, templates for goals setting and timetables, links to revision sites.
**www.studynotes.ie**  
Includes revision notes, flashcards for key vocabulary, lists of key quotations, videos for JC and LC in a wide range of subjects. There are short animated video summaries based on Spark notes of Hamlet, Macbeth and Romeo and Juliet. Poems in the Irish syllabus are read aloud.

**www.s-cool.co.uk**  
Website for the UK GCSE and A levels, with free revision guides and study tips in subject such as Biology, Chemistry, Physics, French, Maths, Economics etc.

**www.studyclix.ie**  
This site provides an analysis of past papers in the LC and JC by topic as well as the marking schemes. It also has notes and videos on different topics. However basic access to 2 questions and 2 marking schemes is free. Otherwise it is €25 for access to the resources for all subjects for one year.

**www.vark-learn.com**  
VARK is an on-line questionnaire that provides users with a profile of their learning preferences.

**Subject specific websites**

**Art History**  
**www.pdst.ie/node/4141**. This link has powerpoint presentations on different topics from the History of Art course for LC.

**Engineering**  
**www.rte.ie/exams**  
This website has a link to Engineering notes and powerpoints.

**English**  
**www.sccenglish.ie**  
Website for St. Columba’s English Department. It covers poetry, drama, essay and includes podcasts on key texts for the LC such as Hamlet, King Lear and MacBeth. An example is Podcast 21 which is the third in a series of 6 podcasts on King Lear which are about 10 minutes each. This Podcast features 10 quotations and examines the quotations as key moments in the play, linking them to the rest of the text and prompting fresh reflection on the themes and characters. Podcast 24 is about patterns in poetry.

**Geography**  
**www.lcgeography.preswex.ie**  
Website designed for the Geography students in Presentation School Wexford, but has grown to help all students studying Geography at LC level. (If the above link does not open, search for Leaving Certificate Geography Presentation Wexford).

**History**  
**www.leavingcerthistory.net**  
Website for the Leaving Certificate History class in St. Patricks Comprehensive School, Shannon.

**Irish**  
**www.Irishstudysite.com**  
Resources on the study of Irish with sections on prose, poetry, essays, the oral Irish etc.

**Languages**  
**www.duolingo.com**  
This site provides interactive learning of languages in progressive stages with writing and speaking exercises. Languages include Irish, French, Spanish, German and Italian.

**Maths**  
**www.alison.com**  
Free on-line course in Project Maths with video tutorials of lessons at JC and LC levels in both ordinary and higher levels. The site also covers topics in Physics and Chemistry.

**Science**  
**www.thephysicsteacher.ie**  
Study notes in JC Science, LC Physics and Applied Maths with some material on Biology.

**www.juniorcertscience.com**  
Notes and resources for Junior Certificate Science

**www.frogblog.ie**  
Frogblog contains short and snappy articles on topics in Science, Environment, Engineering, from Astronomy to zoology. It is for science enthusiasts of all ages. From 2013 it is no longer being updated, but the archive remains active.
FACTSHEET 18: USEFUL RESOURCES

Essential Publications for second level schools
National Behaviour Support Unit: [www.nbss.ie](http://www.nbss.ie)  Literacy and Learning Programme and Resources
Special Education Support Service: [www.sess.ie](http://www.sess.ie)  Science Differentiation in Practice

Government Publications
Guidelines for teachers of students with General Learning Difficulties NCCA (2007)
Inclusion of Students with Special Educational Needs, Post Primary Guidelines (2007)
Signposts SESS (2008)
A Continuum of Support for Post-primary Schools, Guidelines for Teachers NEPS (2010)
A Continuum of Support for Post-primary Schools, Resource Pack for Teachers NEPS (2010)
Delivery for Students with Special Educational Needs, a better and more equitable way NCSE (2014)
Effective Interventions for Struggling Readers, a Good Practice Guide for Teachers NEPS (2012)
NEPS Guidelines, Handouts and Tips for Teachers and Parents NEPS (2015) This publication includes sections on visual perception, working memory, thinking skills and metacognition.

Dyslexia Association of Ireland Publications
All Children Learn Differently:  A Parent’s Guide to Dyslexia
Living with Dyslexia: Information for Adults on Dyslexia

Other Publications
Buzan, T. Use your Memory  London: BBC Worldwide
Moody, Dr. S., Dyslexia, a Teenager’s Guide  London: Vermillion
British Dyslexia Association Curriculum Series, Editors Peer, L. & Reid, G. P
*Dyslexia and English* Turn E. & Pughe J.
*Dyslexia and Foreign Language Learning* Schneider, E. & Crombie, M.
*Dyslexia and General Science* Hunter V.
*Dyslexia and History* Dargie R.
*Dyslexia and Maths* Kay J. & Yeo D.
*Dyslexia and Physical Education* Portwood M.
*Dyslexia and Design & Technology* Ranaldi F.

**Websites Organisations**
- [www.bdadysexia.org.uk](http://www.bdadysexia.org.uk) British Dyslexia Association
- [www.dyslexia.ie](http://www.dyslexia.ie) Dyslexia Association of Ireland
- [www.dyslexiacourses.ie](http://www.dyslexiacourses.ie) Dyslexia Courses Ireland
- [www.dyspraxiaireland.ie](http://www.dyspraxiaireland.ie) Dyspraxia Association
- [www.pdst.ie](http://www.pdst.ie) Professional Development Service for Teachers
- [www.sess.ie](http://www.sess.ie) Special Education Support Service

**Websites for resources**
- [www.bbc.co.uk/skillswise](http://www.bbc.co.uk/skillswise) Literacy and Numeracy resources
- [www.beingdyslexic.co.uk](http://www.beingdyslexic.co.uk) Support for students and adults with dyslexia
- [www.dyslexiaaction.org.uk](http://www.dyslexiaaction.org.uk) Dive in – a guide to books for reluctant and dyslexia readers
- [www.duolingo.com](http://www.duolingo.com) Languages courses
- [www.elsp.ie](http://www.elsp.ie) English Language Support Programme
- [www.jcsp.ie](http://www.jcsp.ie) Junior Certificate Schools Programme
- [www.nbss.ie](http://www.nbss.ie) National Behaviour Support Service
- [www.nce-mstl.ie](http://www.nce-mstl.ie) National Centre for Excellence in Mathematics and Science Teaching and Learning
- [www.nrich.maths.org](http://www.nrich.maths.org) The Nrich Maths Programme
- [www.readingrockets.com](http://www.readingrockets.com) Strategies to help reading
- [www.steps.ie](http://www.steps.ie) Engineers Ireland STEPS programme
- [www.tes.co.uk](http://www.tes.co.uk) Site for teaching resources

**Useful websites with information on the use of technology in education**
- [www.ncte.ie](http://www.ncte.ie) National Centre for Technology in Education (NCTE)
- [www.bdatech.org.uk](http://www.bdatech.org.uk) British Dyslexia Association (BDA)
- [www.callscotland.org.uk](http://www.callscotland.org.uk) Call Scotland
- [www.dyslexic.com](http://www.dyslexic.com) iAnsyst Ltd.

**Youtube**
- *Left from Write* (2014) which shows the experience of people with dyslexia in Ireland.
- *How difficult can this be?* Or FATCITY-Dyslexia. This puts the viewer in the situation of experiencing difficulties similar to those the student with dyslexia faces.
- *Dyslexia explained – what is it like to be dyslexic* (7 Mins) good for primary school

**On-line library**
Special Education Support Service [www.sess.ie](http://www.sess.ie) has an on-line library available to teachers. Schools register by paying €30.00