

Specific Learning Difficulties – Dyslexia, Dyscalculia and Dyspraxia

(Taken from NHS Choices)

Dyslexia

The signs and symptoms of dyslexia differ from person to person. Each individual with the condition will have a unique pattern of strengths and weaknesses. Some of the most common signs of dyslexia are outlined below.

Preschool children

In some cases, it's possible to detect symptoms of dyslexia before a child starts school. Symptoms can include:

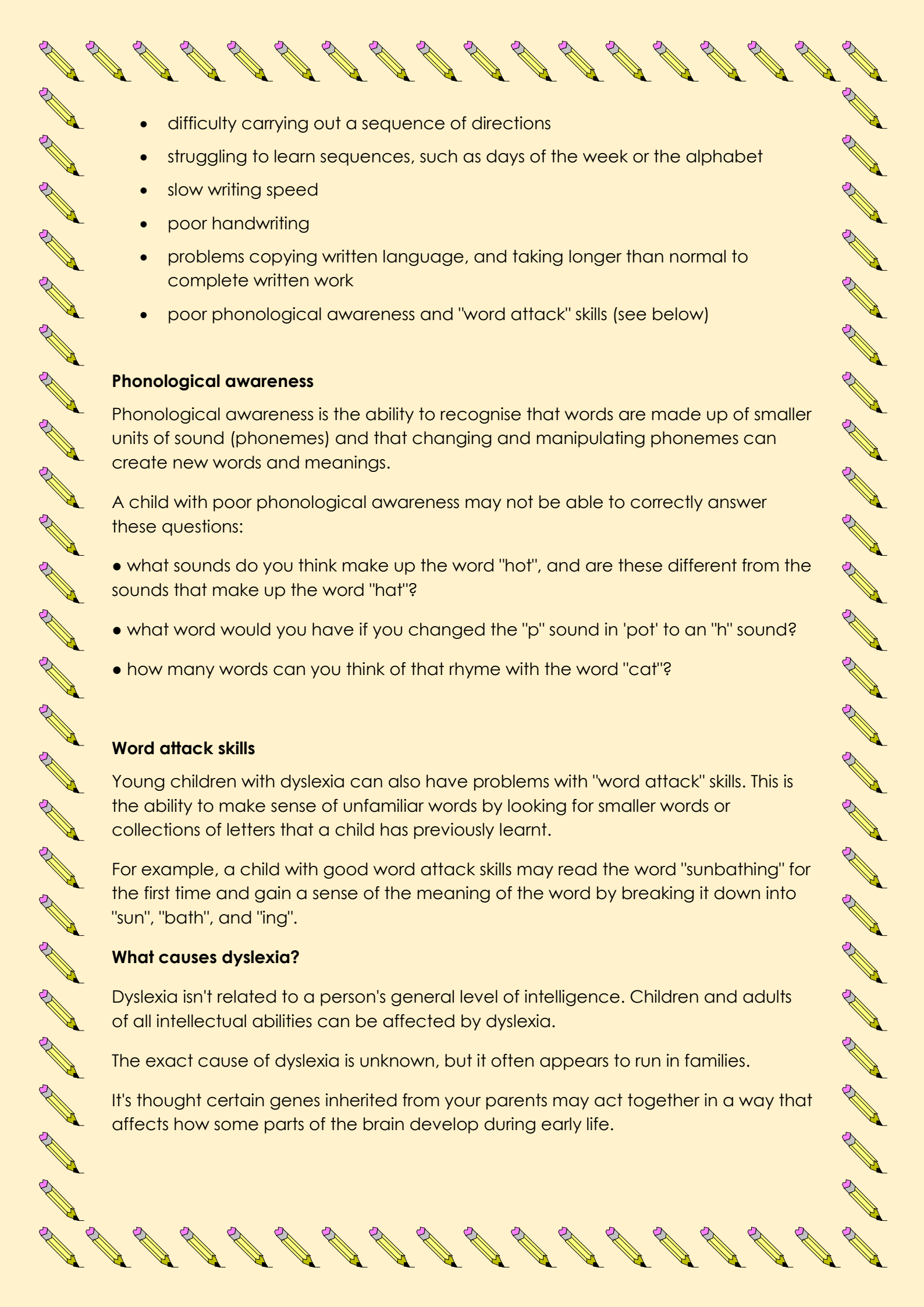
- delayed speech development compared with other children of the same age (although this can have many different causes)
- speech problems, such as not being able to pronounce long words properly and "jumbling" up phrases – for example, saying "hecicopter" instead of "helicopter", or "beddy tear" instead of "teddy bear"
- problems expressing themselves using spoken language, such as being unable to remember the right word to use, or putting together sentences incorrectly
- little understanding or appreciation of rhyming words, such as "the cat sat on the mat", or nursery rhymes
- difficulty with, or little interest in, learning letters of the alphabet

School children

Symptoms of dyslexia usually become more obvious when children start school and begin to focus more on learning how to read and write.

Symptoms of dyslexia in children aged 5-12 include:

- problems learning the names and sounds of letters
- spelling that is unpredictable and inconsistent
- putting letters and figures the wrong way round – such as writing "6" instead "9", or "b" instead of "d"
- confusing the order of letters in words
- reading slowly or making errors when reading aloud
- visual disturbances when reading – for example, a child may describe letters and words as seeming to move around or appear blurred
- answering questions well orally, but having difficulty writing down the answer

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- difficulty carrying out a sequence of directions
 - struggling to learn sequences, such as days of the week or the alphabet
 - slow writing speed
 - poor handwriting
 - problems copying written language, and taking longer than normal to complete written work
 - poor phonological awareness and "word attack" skills (see below)

Phonological awareness

Phonological awareness is the ability to recognise that words are made up of smaller units of sound (phonemes) and that changing and manipulating phonemes can create new words and meanings.

A child with poor phonological awareness may not be able to correctly answer these questions:

- what sounds do you think make up the word "hot", and are these different from the sounds that make up the word "hat"?
- what word would you have if you changed the "p" sound in 'pot' to an "h" sound?
- how many words can you think of that rhyme with the word "cat"?

Word attack skills

Young children with dyslexia can also have problems with "word attack" skills. This is the ability to make sense of unfamiliar words by looking for smaller words or collections of letters that a child has previously learnt.

For example, a child with good word attack skills may read the word "sunbathing" for the first time and gain a sense of the meaning of the word by breaking it down into "sun", "bath", and "ing".

What causes dyslexia?

Dyslexia isn't related to a person's general level of intelligence. Children and adults of all intellectual abilities can be affected by dyslexia.

The exact cause of dyslexia is unknown, but it often appears to run in families.

It's thought certain genes inherited from your parents may act together in a way that affects how some parts of the brain develop during early life.



Getting help

If you think your child may have dyslexia, the first step is to speak to their teacher then the school's special educational needs co-ordinator (SENCO) about your concerns.

If you or your child's teacher has an ongoing concern, take your child to see your GP so they can check for signs of any underlying health issues, such as hearing or vision problems, that could be affecting their ability to learn.

If your child doesn't have any obvious underlying health problems to explain their learning difficulties, different teaching methods may need to be tried.

School may be able to offer additional support to help your child if necessary.

If your child continues to have problems despite extra support, you or the school may want to consider requesting a more in-depth assessment from a specialist dyslexia teacher or an educational psychologist.

Dyscalculia

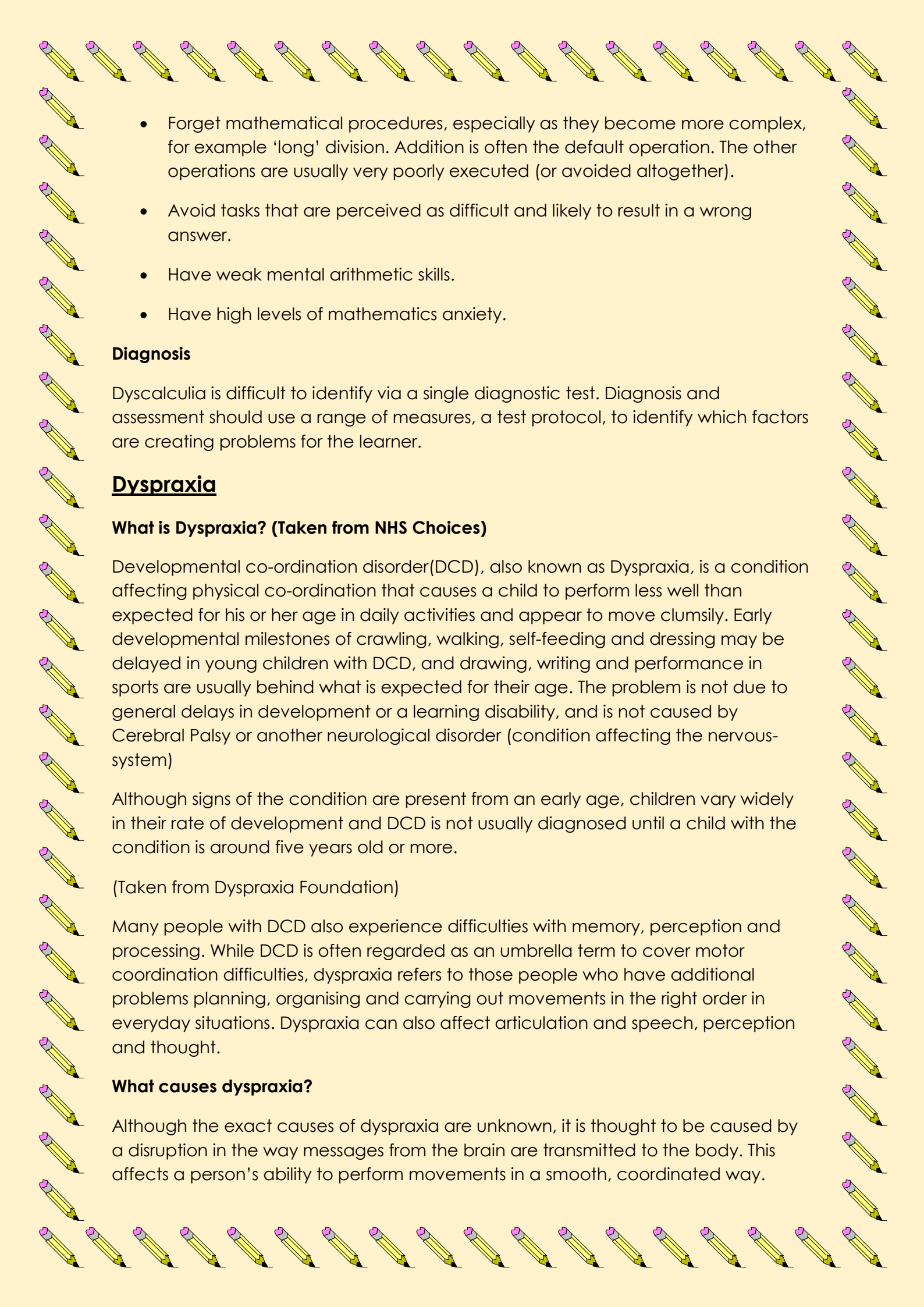
(Taken from The Dyslexia Association)

Dyscalculia is a specific and persistent difficulty in understanding numbers which can lead to a diverse range of difficulties with mathematics. It will be unexpected in relation to age, level of education and experience and occurs across all ages and abilities.

Signs of dyscalculia

A person with dyscalculia/mathematical learning difficulties may:

- Have difficulty when counting backwards.
- Have a poor sense of number and estimation.
- Have difficulty in remembering 'basic' facts, despite many hours of practice/rote learning.
- Have no strategies to compensate for lack of recall, other than to use counting.
- Have difficulty in understanding place value and the role of zero in the Arabic/Hindu number system.
- Have no sense of whether any answers that are obtained are right or nearly right.
- Be slower to perform calculations. (Therefore, give fewer examples, rather than more time).

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- Forget mathematical procedures, especially as they become more complex, for example 'long' division. Addition is often the default operation. The other operations are usually very poorly executed (or avoided altogether).
 - Avoid tasks that are perceived as difficult and likely to result in a wrong answer.
 - Have weak mental arithmetic skills.
 - Have high levels of mathematics anxiety.

Diagnosis

Dyscalculia is difficult to identify via a single diagnostic test. Diagnosis and assessment should use a range of measures, a test protocol, to identify which factors are creating problems for the learner.

Dyspraxia

What is Dyspraxia? (Taken from NHS Choices)

Developmental co-ordination disorder (DCD), also known as Dyspraxia, is a condition affecting physical co-ordination that causes a child to perform less well than expected for his or her age in daily activities and appear to move clumsily. Early developmental milestones of crawling, walking, self-feeding and dressing may be delayed in young children with DCD, and drawing, writing and performance in sports are usually behind what is expected for their age. The problem is not due to general delays in development or a learning disability, and is not caused by Cerebral Palsy or another neurological disorder (condition affecting the nervous-system)

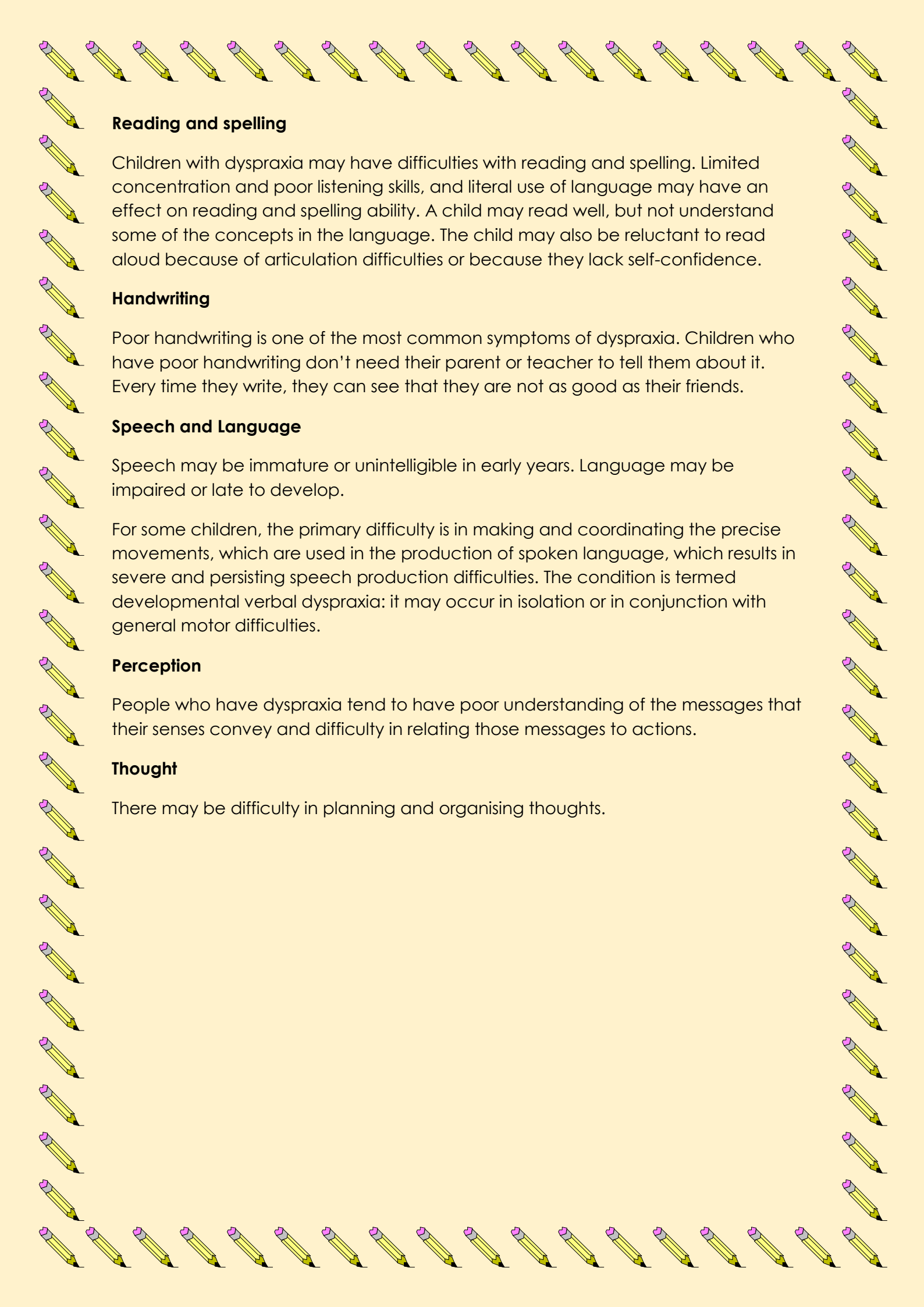
Although signs of the condition are present from an early age, children vary widely in their rate of development and DCD is not usually diagnosed until a child with the condition is around five years old or more.

(Taken from Dyspraxia Foundation)

Many people with DCD also experience difficulties with memory, perception and processing. While DCD is often regarded as an umbrella term to cover motor coordination difficulties, dyspraxia refers to those people who have additional problems planning, organising and carrying out movements in the right order in everyday situations. Dyspraxia can also affect articulation and speech, perception and thought.

What causes dyspraxia?

Although the exact causes of dyspraxia are unknown, it is thought to be caused by a disruption in the way messages from the brain are transmitted to the body. This affects a person's ability to perform movements in a smooth, coordinated way.



Reading and spelling

Children with dyspraxia may have difficulties with reading and spelling. Limited concentration and poor listening skills, and literal use of language may have an effect on reading and spelling ability. A child may read well, but not understand some of the concepts in the language. The child may also be reluctant to read aloud because of articulation difficulties or because they lack self-confidence.

Handwriting

Poor handwriting is one of the most common symptoms of dyspraxia. Children who have poor handwriting don't need their parent or teacher to tell them about it. Every time they write, they can see that they are not as good as their friends.

Speech and Language

Speech may be immature or unintelligible in early years. Language may be impaired or late to develop.


For some children, the primary difficulty is in making and coordinating the precise movements, which are used in the production of spoken language, which results in severe and persisting speech production difficulties. The condition is termed developmental verbal dyspraxia: it may occur in isolation or in conjunction with general motor difficulties.

Perception

People who have dyspraxia tend to have poor understanding of the messages that their senses convey and difficulty in relating those messages to actions.

Thought

There may be difficulty in planning and organising thoughts.



Quality First Strategies

- Avoid approaches that have not worked in the past and recognise that processing difficulties will not be overcome by practice
- Allow extra time to complete tasks and tests
- Teach basic skills in context, using learners' own written work
- Encourage students to identify their own strategies, e.g. mnemonics, learning by doing, so that they become independent learners
- Encourage learners to make visual representations of information, such as mind maps
- Use alternative tasks to writing, e.g. charts, labelled diagrams, matching activities.
- Use pair/group work.
- Limit written responses to key points only.
- Provide writing frames to aid organisation and recall of content as well as reduce written requirements.
- Provide visual reminders of writing needs and routines, e.g. check/add punctuation, underlining.
- Provide text for reading as an alternative to copying tasks.
- Use word banks on wall – in alphabetical order.
- Have alphabet strip/cue cards stuck to desk
- Provide visual cued key word lists for task, topic and subject.
- Use word banks, personal wordbooks, spellcheckers.
- Respond to pupil's work in a positive way. Limit written feedback to one area of focus.
- Use technology to support the development of basic skills and as an alternative means of curriculum access.
- Give information in small chunks. Repeat key points. Provide visual reinforcement.
- Present instructions in small steps. Use flow charts, task boards.
- Reduce homework to essential and manageable tasks. Write instructions for pupil.
- Praise, praise, praise. Provide 'pack up and sort out' time.
- Avoid black text on white background – buff or coloured paper is easier to read