



**NCDC**  
NATIONAL CURRICULUM  
DEVELOPMENT CENTRE

RESOURCE BOOK FOR TEACHERS  
AND OTHER CAREGIVERS

**SUPPORTING AND TEACHING  
LEARNERS WITH SPECIFIC  
LEARNING DIFFICULTIES**





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AND OTHER CAREGIVERS



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**FIRST EDITION**

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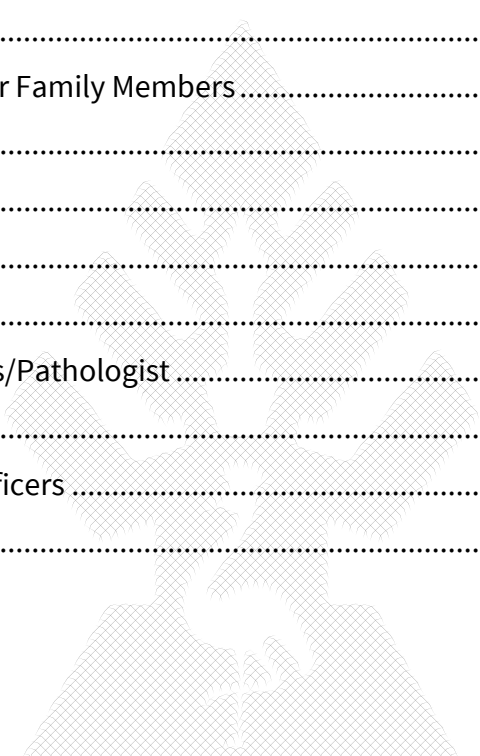
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## Foreword

The development of this Resource Book is a timely fulfilment of the government policy on Universal Primary Education (UPE), and Universal Secondary Education (USE) as stipulated in the government White Paper on Education (1992) and Persons with Disability Act (2006). In addition, equal access to quality education is the value that underpins the Sustainable Development Goals, particularly Goal 4 on education.

National Curriculum Development Centre (NCDC) is committed to providing quality education where all learners have the opportunity to develop their full potential through rich and varied learning experiences. The vision is to produce engaged, purposeful, skilful, and successful learners that are resourceful and industrious members of the society for the common good. Highly able learners are acknowledged as having particular learning needs requiring adjustment to their educational programme, so that they remain highly engaged and active learners.

The aim of this Resource Book is to support teachers and parents/caregivers in identifying, teaching and assessing learners with SLDs and to support schools in developing policies and procedures, and planning future directions for enhancing the education of their learners with SLDs. The Resource Book is also useful to education stakeholders in planning and providing high quality services for learners with SLDs while also emphasising the importance of the experience of their families.

We recommend this Resource Book to you and trust that it will be a valuable resource in your efforts to provide for the educational needs of all our learners.



Hon Janet Kataaha Museveni

**First Lady and Minister of Education and Sports**

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NCDC takes responsibility for any shortcomings that might be identified in this publication, and welcomes suggestions for effectively addressing the inadequacies. Such comments and suggestions may be communicated to NCDC through: P.O. Box 7002, Kampala or e-mail [admin@ncdc.org.ug](mailto:admin@ncdc.org.ug) or [www.ncdc.org.ug](http://www.ncdc.org.ug).



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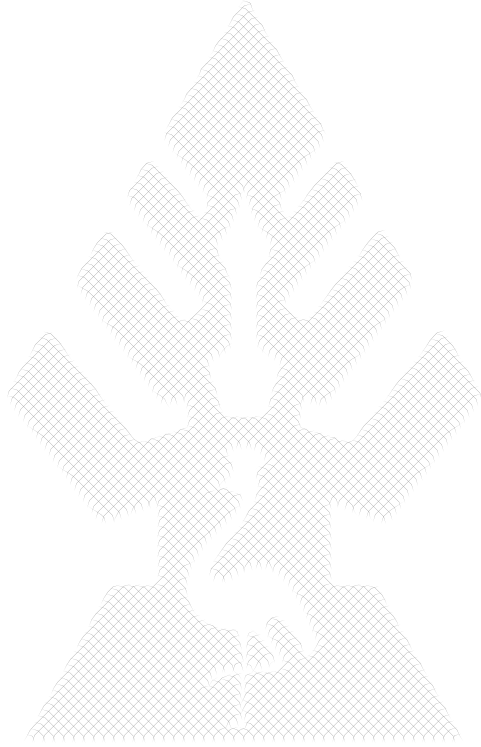




## List of Acronyms

<b>ADHD:</b>	Attention Deficit Hyper-Activity Disorder
<b>BODMAS:</b>	Brackets-Of-Division-Multiplication-Addition-Subtraction
<b>ICT:</b>	Information Computer Technology
<b>IEP:</b>	Individualised Education Programme
<b>SAV NAVs:</b>	Satellite Navigation
<b>NCDC:</b>	National Curriculum Development Centre
<b>OCR:</b>	Optical Character Recognition or Optical Character Reader
<b>SEN:</b>	Special Educational Needs
<b>SLD:</b>	Specific Learning Difficulties
<b>SLI:</b>	Specific Language Impairment
<b>SNE:</b>	Special Needs Education
<b>UNEB:</b>	Uganda National Examinations Board
<b>USE:</b>	Universal Secondary Education
<b>UPE:</b>	Universal Primary Education





## Introduction

The introduction of Universal Primary Education (UPE) in 1997 and Universal Secondary Education (USE) in 2007 in Uganda led to an increase in enrolment of learners including those with Special Educational Needs (SEN). There are different categories of learners with different learning needs; in fact, learning needs are as many as the number of learners because we are individuals with different needs. It is not easy to identify learning needs because of the wide variations. There is no symptom of a need.

However, some warning signs are more common than others at different ages. If you are aware of what they are, you will be able to identify a learning need early and take steps to help the learner. You should develop sensitivity to observe unexpected situations and events, and have the ability to obtain information about individuals and groups. This will help you to identify various learners' needs and be able to assist them but also become better teachers.

It has been observed that many of you presently have limited knowledge and skills in supporting learners with Special Educational Needs (SEN). All learners including those experiencing challenges in learning, development, and participation, as well as those with disabilities have a right to quality education that suits their age and ability. National Curriculum Development Centre (NCDC) has hence developed this resource book for all personnel that interface with learners with Special Educational Needs (SEN) in schools and at home. In particular, this resource book is developed to guide you in teaching and supporting learners with specific learning difficulties.

Therefore, the resource book highlights the diverse educational needs of learners with specific learning difficulties. This resource book will help you especially if you have little or no background of specific learning difficulties (SLD). The book provides background information on SLDs to enable you to understand the learner. Understanding the learner is key in teaching and supporting him/her. The information and suggestions in this resource book will enable you and the community to discover the learners with SLDs and to provide them with necessary support.

# UNIT 1: Understanding Specific Learning Difficulties

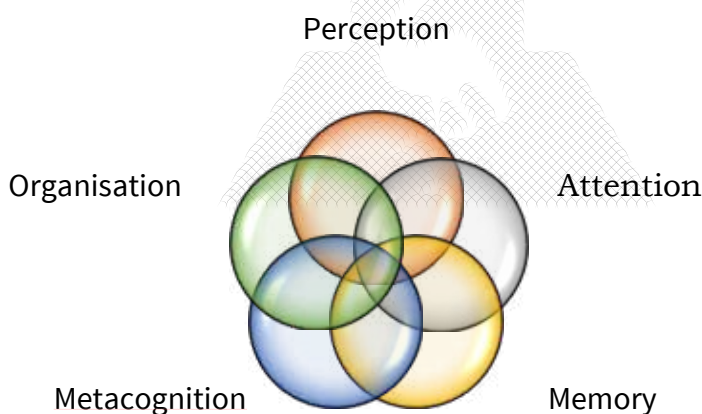
## 1.1 Defining Specific Learning Difficulties

A Specific Learning Difficulty (SLD) is a neurodevelopmental disorder that often affects a child's ability to perceive, process, organise, memorise, recall information and pay attention (Flanagan & Alfonso, 2011).

The specific learning difficulties are often hidden and affect certain areas of learning which include; literacy (reading, writing, and spelling) and numeracy. Learners with specific learning difficulties look and behave just like their peers and may not immediately demonstrate learning differences, however, this depends on the varying degrees of significance.

When no early interventions are made, specific learning difficulties can be a lifelong condition that can create an impact on a person's life (Flanagan & Alfonso, 2011).

In summary, there are five key areas that are affected by SLDs during the learning process and these include: perception, attention, memory, organisation, and metacognition.



If a learner has problems doing any or all of these things, it is easy to see how all learning can be affected.

## 1.2 Causes of Specific Learning Difficulties

Specific learning difficulties are caused by many factors some of which are:

- a) Internal **causes** such as: premature birth, mother's exposure to dangerous substances, infections that may affect child's brain in the foetus
- b) External **cause** such as: family history, a child having other disabilities, inadequate child's motivation, psychological torture, and others are unknown.

## 1.3 Types of Specific Learning Difficulties

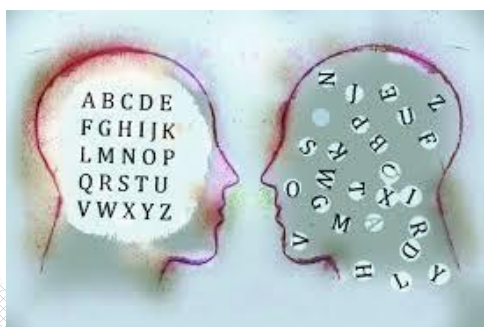
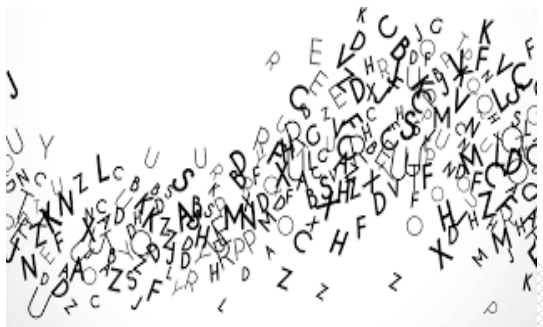
The term Specific Learning Difficulty is used to describe the unexpected and persistent learning problems experienced by some learners in specific areas of learning and achievement.

Types of specific learning difficulties are: Dyslexia, Dyspraxia, Dyscalculia, Attention Deficit (Hyperactivity) Disorder, Dysgraphia and Dysphonia:

- Dyslexia: a learning difficult that affects the learner's acquisition of skills in reading, spelling and writing.
- Dyspraxia: Difficulty in movement and coordination (clumsiness) and visual perceptual
- Dyscalculia: Difficulty in mathematics
- Attention Deficit (Hyperactivity) Disorder: Inability to concentrate well, pay attention and control behaviour.
- Dysgraphia: A learning difficulty associated with difficulties in writing, drawings, poor spelling, and problems selecting the correct words to use.
- Dysphonia: A learning difficulty associated with difficulty in speaking due to a physical disorder of the mouth, tongue, throat, or vocal cords.

However, this resource book addresses only three types which are most commonly found in learners and not clear to the teachers and these include: dyslexia, dyscalculia, and dysgraphia.

## UNIT 2: Dyslexia



According to the article “Dyslexia in Schools: Understanding and Teaching Students with Dyslexia” (2019), Dyslexia is defined as a learning difficulty that primarily affects the skills involved in accurate and fluent word reading, writing and spelling. As a result, auditory processing, language processing, and non-verbal learning are affected ([www.waterford.org/education/dyslexia-in-schools](http://www.waterford.org/education/dyslexia-in-schools)).

In other words, it is a learning difficulty that affects the learner’s acquisition of skills in reading, spelling and writing (Ebere, 2016). Such children with this condition may have normal intelligence and normal vision.

### 2.1. Signs to Identify a Learner with Dyslexia

The Dyslexia Resource in one of the articles “Understanding Dyslexia” (2021) identifies the following signs:

- Difficulty in decoding single words (reading single words in isolation)
- Slow to learn the connection between letters and sounds
- Confuse small words e.g., at/to, said/and, does/goes
- Talk later than their peers
- Difficulty pronouncing words, for example “buluk” for book, “clup board” for “cupboard”.
- Slow to add new vocabulary
- Unable to recall the right word
- Difficulty with rhyming

- Trouble learning the alphabet, numbers, days of the week, colours, shapes, how to spell and write his or her name
- Trouble interacting with peers
- Slower development of fine motor skills than in other children
- Difficulty telling and/or retelling a story in the correct sequence
- consistent reading and spelling errors e.g., letter reversals - d for b, b for d as in, dog for bog; word reversals – tip for pit; inversions - m and w, u and n; transpositions - felt and left; substitutions - house with home
- Trouble in remembering facts, may be slow to learn new skills; relies heavily on memorising without understanding
- Impulsive and prone to accidents
- Often uses an awkward pencil grip (fist, thumb hooked over fingers etc.) ([www.dyslexiaresource.org/category/understanding-dyslexia](http://www.dyslexiaresource.org/category/understanding-dyslexia))

In general, a learner who has a cluster of the following may be dyslexic:

- Difficulty with learning to read and/or write despite intervention
- Slow speed of processing spoken and/or written language
- Poor word retrieval
- Poor concentration/easily distracted
- Employing avoidance tactics, such as sharpening a pencil or looking for books
- Tends to view the world negatively. Less likely to enjoy the positive experiences in life. This makes it difficult for him/her to have fun.

## 2.2 Effects of Dyslexia on Learning and Development

### a) Educational Connection

Dyslexia has an effect on both speed and accuracy of an individual in reading and writing (UCL 2016). Dyslexia may not have any effect with the general higher level language skills such as oral comprehension. However, when the ability to decode text is totally impaired, the reading comprehension is equally affected.

In most cases, dyslexic learners are slow readers and as the accuracy is also affected, they generally need to re-read texts more often than other learners.

Dyslexic learners generally dislike or fear reading aloud, as this exposes them to errors they make. Most learners with dyslexia cannot produce written work as quickly as other learners; they make more spelling errors even in word-processed work. Their punctuation and grammar are weak and they may often omit, repeat, or insert small function words or word endings in both reading and writing ([www.waterford.org/education/dyslexia-in-schools](http://www.waterford.org/education/dyslexia-in-schools)).

Learners with dyslexia find it difficult to proofread and edit their work. They may submit work with spelling errors which look as if they have not been checked for inaccuracies. Dyslectic learners also experience weaknesses in transcribing or copying given text or work. When calculations are involved, this may have serious implications.

**b) Social and Emotional Connection**

Social and emotional problems of learners with dyslexia can be observed when early reading instruction does not match their learning abilities. As time goes on, the behaviours increase especially when their classmates perform better than them in the reading skills.

**c) Stress and Anxiety**

Many learners with dyslexia are subjected to excessive pressure to succeed (or excel) without the proper support or training. Their progress may have limited success, despite countless hours spent working with specialists. Others have been continuously being compared to their siblings or classmates, making them embarrassed, cautious, and defensive. It makes sense for them to become withdrawn, seek the company of younger people, or become social isolates.

**d) Self-Image**

If learners succeed in school, they develop positive feelings about themselves and believe that they can succeed in life. However, a learner with dyslexia instead of feeling powerful and productive can feel powerless and incompetent which can affect his/her self-esteem.



Such learners often end up feeling frustrated and less capable than they actually are. After experiencing a great deal of stress due to academic problems, a learner may become discouraged and discontinue schooling (Jordan 1972).

### **2.3 Educational strategies for learners with dyslexia**

Learners are more successful when their early lives have been extremely supported and encouraged, especially when they have found an area in which they can succeed. In one of the articles in “The International Dyslexia Association: Supporting your child at school”, a writer states that schools can implement academic accommodation and modification strategies to help learners with dyslexia succeed, and suggests the following as some of the strategies that teachers can apply to create an incredible support:

- **Listening to learners’ feelings**

Since these learners have language problems and often make it difficult for them to express their feelings, teachers should encourage learners to talk about their feelings and be patient when listening to them.

- **Eliminating factors other than dyslexia that could impact academic performance**

For example, when confronting unacceptable behaviour, do not carelessly say words such as “lazy” or “incorrigible” [hopeless] that can seriously damage the child’s self-image.

- **Block out unrelated stimuli.**

If a learner is easily distracted by visual stimuli on a full blackboard or wall, a blank sheet of paper can be used to cover sections of the page/board/wall not being worked on at the time.

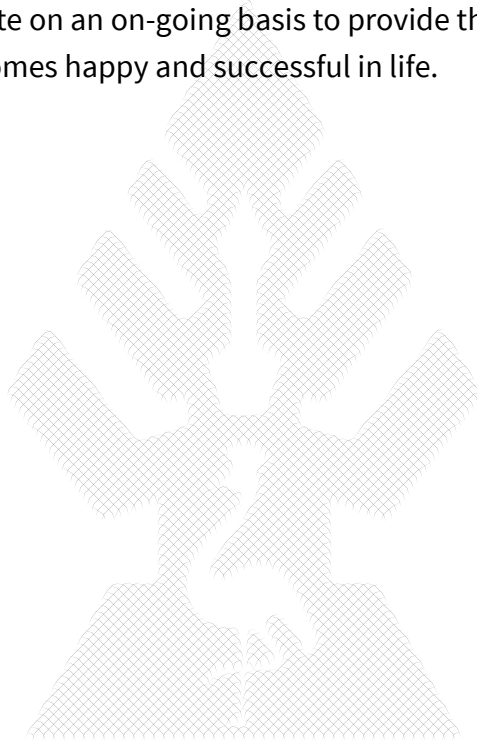
- **Use of assistive technology.**

Encourage the use of assistive devices such as computers, tablets, electronic readers/dictionaries/spellers, text-to-speech programs, audio books etc.

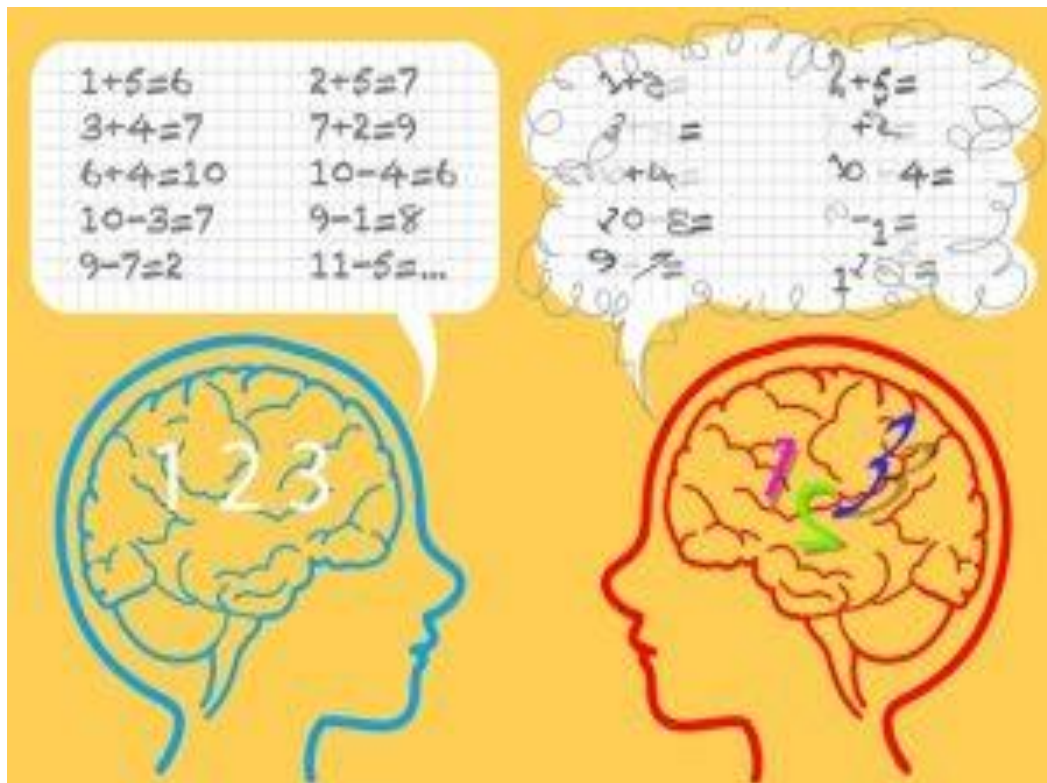
- **Appreciate learners' strengths and attributes.** Reward learners' efforts, not only "the product". For learners with dyslexia, it is important to reward all efforts from the start to the end product but not just the grades.
  
- **Write key points or words on the chalkboard/whiteboard.**  
Prior to a presentation, you can write new vocabulary/words and key points on the chalkboard/whiteboard. In addition, line markers can be used to aid reading, and windows/charts can be used to display individual math problems. Additionally, using larger font sizes and increasing spacing can help separate sections.
  
- **Use balanced presentations and activities.**  
Make an effort to balance oral presentations with visual information and participatory activities. In addition, there should be a balance between large group, small group, and individual activities.
  
- **Allow for alternative presentation of examinations:**
  1. Large print
  2. Electronic format (on computer)
  3. Coloured paper or coloured overlays since they have been found to reduce the impact of the learning difficulty
  
- **Present a small amount of work (task analysis).** Present small assignments to learners who are anxious about the amount of work to be done. This technique prevents learners from examining an entire workbook, text, or material and becoming discouraged by the amount of work.
  
- **Use peer-peer learning.**  
You can pair peers of different ability levels to review their notes, study for a test, read aloud to each other, write stories, or conduct laboratory experiments. In addition, a partner can read math problems for learners with reading problems to solve.

- **Change response mode.** For learners who have difficulty with fine motor skills (such as handwriting), the response mode can be changed to underlining, selecting from multiple choices, sorting, or marking and/or be given extra space for writing answers on worksheets. <https://dyslexiaida.org/policies>.

**Note:** It is critical that teachers and parents working with the learner with dyslexia communicate on an on-going basis to provide the support needed, so that the learner becomes happy and successful in life.



## UNIT 3: Dyscalculia



In the article “teaching students with dyscalculia, Sasha defines dyscalculia as a learning difficulty that makes individuals to have persistent difficulty in learning and practising mathematical concepts.

Although learners with dyscalculia may have difficulty in grasping new mathematical concepts, dyscalculia is not usually associated with low intelligence. Learners with dyscalculia are likely to do well in many other areas/subjects and only have difficulty with math due to how their brain personally processes information ([www.abtaclass.com/how-to-teach-students-with-dyscalculia](http://www.abtaclass.com/how-to-teach-students-with-dyscalculia)). This means that an individual (child or adult) who is otherwise intelligent or competent in other learning areas, truly battles specifically with numbers and mathematics.

### 3.1. Common Areas of Difficulty in Mathematics

Kunwar (2021) highlights some common areas of difficulty in mathematics for learners with dyscalculia as stated below:

- i) Calculations: Not able to do basic addition, subtraction, multiplication, and division, for example, choosing the correct numerical operation and applying it correctly.
- ii) Sequencing and recognising patterns: Troubles with recognising patterns and sequencing numbers. For example, struggle to understand information on charts and graphs.
- iii) Making sense of money and estimating quantities: Have trouble applying math concepts to money, such as making exact change.
- iv) Estimation: Understanding place value, problem-related to estimating quantities from the given numbers or numeric values, mathematical concepts, rules and formulae.
- v) Direction/orientation: Lack confidence in activities that require understanding speed, distance and directions, and may get lost easily. For example, confusion in identifying left and right directions.
- vi) Have trouble finding different approaches to the same math problem, such as adding the length and width of a rectangle and doubling the answer to solve for the perimeter (rather than adding all the sides).
- vii) Difficulty learning the days of week and months of the year
- viii) Time: Problem-related to telling time on an analogue clock: For example, telling the time and with aspects of time, such as yesterday and tomorrow.
- ix) Counting backward and counting in steps: Counting backward and stepwise.
- x) Assessing numerical quantity: Identifying the number numerically, larger or smaller.
- xi) Mental mathematics: Difficulty remembering procedures in mathematics, recognising quantities without counting, recalling basic math facts, linking numbers and symbols and problem-solving.
- xii) Fraction: Poor visual and spatial orientation in fraction diagram

## 3.2. Causes of Dyscalculia

Dyscalculia is a mathematics-related difficulty resulting from neurological dysfunction. Learners who are diagnosed with dyscalculia have average to above-average intellectual functioning and a significant discrepancy between their math skills and their peers. For a diagnosis of dyscalculia, it must be determined that the math deficit is not simply related to issues such as poor instruction, vision, hearing or other physical problems, cultural or language differences, or developmental delays (Admin 2019). ([www.dopasolution.com/dyscalculia](http://www.dopasolution.com/dyscalculia))

Other possible causes of specific learning difficulties Include:

**Illness during and after birth:** An illness or injury during or after birth may cause learning disabilities.

Other possible factors could be drug or alcohol consumption during pregnancy, physical trauma, poor growth in the uterus, low birth weight, premature or prolonged labour and genetical factors (family history).

**Note:** The causes listed above may cause all the specific learning difficulties.

## 3.3 Effects of dyscalculia on learning and development

**Frustration:** For a learner, dyscalculia symptoms can lead to intense frustration in a math class, and other situations requiring different forms of math, for example, when playing a mathematical game that requires knowledge of basic math concepts, and a general understanding of quantities. This frustration can cause a learner to feel nervous when placed in any of these settings.

Besides feeling frustrated, anxious, and nervous, when faced with math problems, dyscalculia can make children feel different from their peers. This can lead to low confidence, disconnection from peers, and possible hatred

towards teachers who do not understand the source of their frustration and anxiety.

**Fear:** The impact of dyscalculia is far reaching and can have a profound impact on daily life, especially work. For example, some dyscalculia adults never learn to drive, because of the numerical demands of driving and map reading.

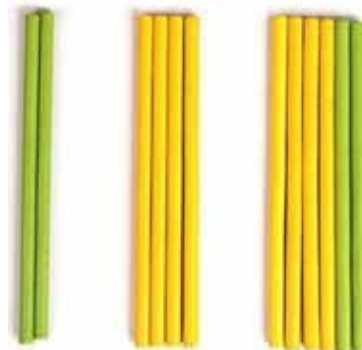
**Social isolation:** Due to an inability to be at the right place at the right time, or to understand the rules governing the games and scoring systems, learners with dyscalculia develop low self-esteem, tend to isolate themselves and hesitate to argue or express their views related to mathematical concepts.

**Job prospects:** Personal finances and budgeting will be an issue for people with dyscalculia. This can have a severe impact on job prospects and promotional opportunities for such work.

### 3.4. Educational strategies for learners with dyscalculia

When applying educational strategies for learners with dyscalculia, we need to have in mind that learners with learning difficulties are not the same and not all strategies will work for all, so you should identify the individual learners' needs, strengths and weaknesses whether diagnosed with a learning difficulty or not. Tucker (2021) stated the following strategies below:

- i) **Make use of real objects to teach abstract math in concrete ways.** Learners with dyscalculia have difficulty understanding mathematical problems without any physical demonstrations. While teaching numbers and concepts, make use of different concrete materials available around the locality and also use readymade or prepared materials such as abacus, calculators, counting sticks. Learners often respond much better when using physical objects to explain concepts rather than formulas written out with numbers and letters.



ii) **Administer word problems to solve a mathematical concept to the learner with dyscalculia.**

Rather than just giving a formula to solve the mathematical problem, give your mathematical presentation in words or scenarios. Most learners with dyscalculia understand word problems better than problems written out as equations or formulas. It is claimed that learners doing well in English or History classes benefit from a detailed word mathematical concept or formula better than the numbers/figures on the page.

iii) **Play games involving math.**

Depending on the age of the learners in your class, there are simple math games for teachers to use when demonstrating mathematical concepts. These games are great for increasing motivation as well as being yet another format to teach math concepts. Getting learners to use what they've learned in an active and competitive game can help those who may feel like giving up to get excited again and learn more (Kunwar 2020).

iv) **Identify the area of difficulty.**

It is important to note that a learner with dyscalculia may also experience a co-existing difficulty such as mother tongue interference, hearing or visual impairment, poor mental health etc.

Supporting learners with dyscalculia when teaching mathematics is all about getting the best ways and styles to solve most types of problems. For example, when teaching about adding and subtracting integers, teachers of mathematics often have students think of a number line and have rules about when to go in each direction. While this system might make it very



clear and easy for some learners with dyscalculia, others may not get this explanation.

v) **Use multi-sensory approach.**

Make use of multiple senses at a time in understanding a mathematical concept. For example:

- Show that the number 3 represents 3 snaps or 3 pens.
- Use paper pie to help understand fractions.
- Build blocks to create patterns.
- Use base ten blocks to understand place value.
- Use scratch paper and graph paper.
- Draw pictures when working with word problems.
- Draw out maths concepts that bring difficulty.
- Use mnemonic devices to learn and remember maths concepts.

vi) **Use modern technology.**

The use of Information Communication Technology (ICT) makes learning more effective as well as interactive. It can be employed to accelerate, enrich and deepen basic skills in reading, writing and arithmetic. Technology facilitates the learner with dyscalculia to learn mathematics in a fun and interactive way, and also motivates them for mathematics learning. ([www.abtclass.com/how-to-teach-students-with-dyscalculia](http://www.abtclass.com/how-to-teach-students-with-dyscalculia))

Much as Tucker highlights the strategies to support learners with dyscalculia as indicated above, there could be other viable strategies which could be adopted.

## UNIT 4: Dysgraphia

Roland (2018) defines dysgraphia as a learning disability that affects writing abilities. It can manifest itself as difficulties with spelling, poor handwriting and trouble putting thoughts on paper.

Because writing requires a complex set of motor and information processing skills, saying a learner has dysgraphia is not sufficient. In other words, dysgraphia is a specific learning difficulty that affects written expressions of an individual ([www.healthline.com/health/what-is-dysgraphia](http://www.healthline.com/health/what-is-dysgraphia))

The difference between dyslexia and dysgraphia is that dyslexia is a reading disorder while dysgraphia is a writing disorder. However, in most cases people with dyslexia may also have problems with their reading, writing and spelling. So, the conditions may sometimes be confused for one another. See some examples of dysgraphia in **Figures 1** and **2**.

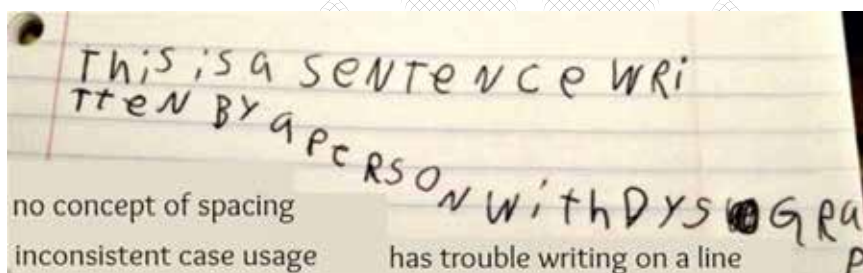


Figure 1

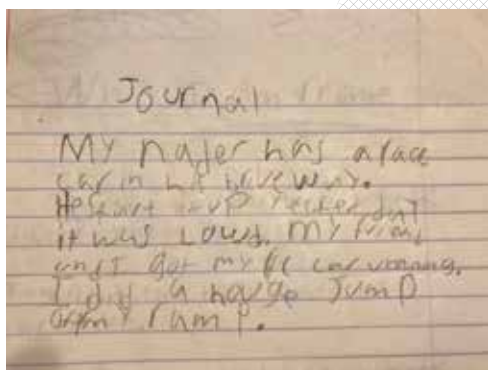


Figure 2

## 4.1. Symptoms of Dysgraphia

The symptoms of dysgraphia can be observed in the following categories namely: visual-spatial, fine motor, language processing, spelling/handwriting, grammar and organisation of language.

### Visual-Spatial Difficulties

- Has trouble with shape-discrimination and letter spacing.
- Has trouble organising words on the page from left to right.
- Writes letters that go in all directions, and letters and words that run together on the page.
- Has a hard time writing on a line and inside margins.
- Has trouble reading maps, drawing or reproducing a shape.
- Copies text slowly.

### Fine Motor Difficulties

- Has trouble holding a pencil correctly, tracing, cutting food, tying shoes, doing puzzles, texting and keyboarding.
- Is unable to use scissors well or to colour inside the lines.
- Holds his wrist, arm, body or paper in an awkward position when writing.

### Language Processing Issues

- Has trouble getting ideas down on paper quickly.
- Has trouble understanding the rules of games.
- Has a hard time following direction.
- Loses his train of thought.

### Spelling /Handwriting Issues

- Has a hard time understanding spelling rules.
- Has trouble telling if a word is misspelled or not.
- Can spell correctly orally but makes spelling errors in writing.
- Spells words incorrectly and in many different ways.
- Has trouble using spell-check—and when he does, he does not recognise the correct word.
- Mixes upper and lowercase letters.

- Blends printing and cursive.
- Has trouble reading his own writing.
- Avoids writing.
- Easily gets tired or cramped handed when he writes.
- Erases a lot.

### **Grammar and Usage Problems**

- Does not know how to use punctuations.
- Overuses commas and mixes up verb tenses.
- Does not start sentences with a capital letter.
- Does not write in complete sentences but writes in a list format.
- Writes sentences that “run on forever”.

### **Organisation of Written Language**

- Has trouble telling a story and may start in the middle.
- Leaves out important facts and details, or provides too much information.
- Assumes others know what he is talking about.
- Uses vague descriptions.
- Writes jumbled sentences.
- Never gets to the point, or makes the same point over and over.
- Is better at conveying ideas when speaking.

**Note:** The symptoms of dysgraphia also vary depending on a learner’s age. Having one of these symptoms does not mean that a person has dysgraphia. However, if a learner’s writing skills lag behind those of his/her peers or has trouble learning the basic skills for writing at an appropriate age, a learner may have dysgraphia condition (Virginia W. Beminger, Beverly J. Wolf 2020).

## 4.2. Effects of Dysgraphia on Learning and Development

The impact of dysgraphia on a learner's development varies, depending on the symptoms and their severity. Here are some common areas of struggle for learners with dysgraphia:

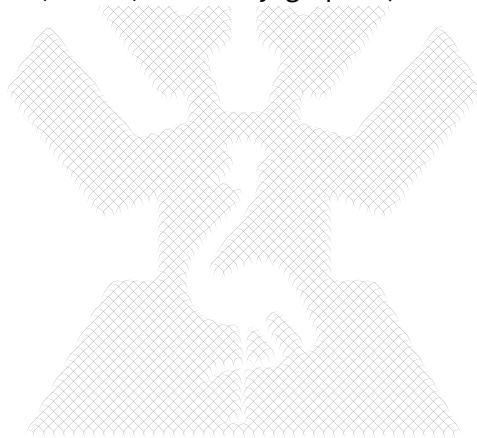
- a) **Academic:** Learners with dysgraphia can fall behind in school work because it takes them so much longer to write. Taking notes is a challenge. They may get discouraged and avoid writing assignments.
- b) **Basic life skills:** Some learner's fine motor skills are weak. They find it hard to do everyday tasks, such as buttoning shirts and making a simple list.
- c) **Social-emotional:** Learners with dysgraphia may feel frustrated or anxious about their academic and life challenges. If they are not identified, you may criticise learners for being "lazy" or "sloppy." This may add to their stress. Their low self-esteem, frustration, and communication problems can also make it hard to socialise with others.

## 4.3. Educational Strategies for Learners with Dysgraphia

Handwriting should never be eliminated, as it is a necessary life skill, but accommodations should be made to allow creativity to dominate over the disability. Dysgraphia is a lifelong condition that affects the learner's writing skills. You can use the following strategies to help a learner to improve his/her writing skills:

- **Be patient and positive when practising handwriting.** Remember that dysgraphia is a learning disability and not a sign of laziness, so criticism is inappropriate and damaging. Always reinforce the positive efforts and aspects of the learner's performance.
- **Encourage proper grip, posture, and paper positioning.** Encourage the child to use a proper grip, which is aided by different sized and shaped pencils as well as pencil grips. Model proper posture and paper positioning as well.
- **Time.** Build in extra time for the learner to complete writing tasks and reduce the amount of writing required.

- **Keyboarding:** Allow the use of a word processor for writing tasks and practise keyboarding skills. Older learners can use speech recognition to dictate long assignments into a word processor.
- **Special paper.** Use paper with raised lines for tactile cues of letter placement. Graph paper is very helpful for math assignments. Similarly, ruled paper can be turned sideways to write math problems in straight columns.
- **Learners can also make an audio recording of important lessons/exams.** Allow the learners to use oral exams and to dictate assignments to a scribe.
- **Provide hand-outs instead of requiring copying.** Learners can also complete writing assignments in small steps.
- **Encourage the learner to take breaks:** A learner with dysgraphia will naturally get fatigued due to poor motor skills and difficulty with pencil grip and posture. So, allow some breaks in between when dictating notes ([www.healthline.com/health/what-is-dysgraphia](http://www.healthline.com/health/what-is-dysgraphia).)



## UNIT 5: Considerations when Conducting Assessment to Learners with SLDs

### 5.1 Introduction

Criteria for Determining SLD

It is determined that a child has SLD if:

The child does not achieve adequately at his or her age or meet level standards in one or more of the following areas, when provided with learning experiences and instruction appropriate for the child's age or level standards:

- oral expression
- listening comprehension
- written expression
- basic reading skills
- reading fluency skills
- reading comprehension
- mathematics calculation
- mathematics problem solving

The child does not make sufficient progress to meet age or level standards in one or more of the areas above when using a process based on the child's response to scientific, research-based intervention; or the child exhibits a pattern of strengths and weaknesses in performance, achievement, or both, relative to age or level standards.

### 5.2 Formative Assessment

Formative assessment refers to wide variety of methods that teachers use in process evaluations of learner comprehension, learning needs and academic progress during a lesson or unit.

Formative assessment is planned, ongoing process used by all students and teachers during learning and teaching to elicit the use evidence of learner learning to improve learners' understanding of intended disciplinary learning outcomes and support learners become self-directed learners.

### **5.2.1 Considerations in conducting formative assessment**

- i) Allow alternative assignment formats e.g., oral reports, demonstrations, recorded on video or audio tape.
- ii) Allow assignments written in outline format or numbering format rather than essay format for learners with dysgraphia.
- iii) Time extensions for written assignments should be permitted to all learners with SLDs.
- iv) Do not penalize for handwriting, grammar and spelling when a word processor is not available for learners with dyslexia and dysgraphia.
- v) Provide scaffolding to ensure the learner is able to demonstrate knowledge, skills and understanding.
- vi) Provide explicit teaching of essay-writing formats and provide examples of well-structured essays to the learners with dyslexia and dysgraphia
- vii) Consider alternative or supplementary assignments that may serve evaluation purposes, such as recorded interviews, slide presentations, photographic essays, or hand-made models.

### **5.3 Summative Examinations/Timed Assessments**

Summative assessments are used to evaluate learning progress and achievement at the conclusion of a specific instructional period usually at the end of term, year, or cycle.

#### **5.3.1 Considerations in conducting summative assessments**

- i) Allow for extra time in examinations. According to UNEB, the current standard time is 45 minutes as additional time for all learners with SEN during examinations.
- ii) Allow the use of a scribe or a word processor for a learner with severe handwriting difficulties.



- iii) Do not penalise learners with learning difficulties for spelling errors. Poor handwriting or spelling may not necessarily indicate an immature or uninformed examination answer.
- iv) Allow the examination questions to be read to learners with reading difficulties. This could be done on audio/video recorder or by using a reader in cases when the learner has a severe reading difficulty.
- v) Allow for alternative examination locations in a separate room; sitting examinations in a separate, quiet room with natural lighting.
- vi) Provide practice exam questions and guides on how to use different terminologies involved in the examinations that demonstrate the format of questions. Make sure you use simple language in examination questions.
- vii) In mathematics, a learner with a learning difficulty may understand the concept, but may make errors by misaligning numbers or confusing arithmetical facts. Therefore, a learner of such category may need more or extra guidance (support).
- viii) Allow learning aids such as dictionaries, computer spellchecks, a proof reader; in mathematics and science, a calculator and access to mathematical or scientific tables.
- ix) Allow for alternative presentation of examinations:
  - Large print
  - Electronic format (on computer)
  - Coloured paper or coloured overlays since they have been found to reduce the impact of the learning difficulty
- x) Consider timetable changes, not to overload the learner with SLDs.
- xi) Split examination papers due to extra time and fatigue. (Try to space the papers adequately; such learners can take their examinations at different intervals rather than doing them spontaneously). The reason behind this is that they can get tired or fatigued easily)

- xiii) Allow rest days between examination papers. After identification of such candidates or learners, the national examination body may opt to either space the days or time adequately. This may act as a reasonable accommodation measure.

## **5.2. Assistive technology/devices during assessments**

Assistive technology or devices are those whose primary purpose is to maintain or improve an individual's functioning and independence to facilitate participation and to enhance overall being.

For learners with SLDs, the following assistive devices can be helpful:

### **Reading:**

- Text to speech software
- OCR software applications
- Screen reading software
- Audio books

### **Writing:**

- Portable word processors
- Auditory word processing software
- Word prediction programs
- Graphical word processors
- On-screen keyboards
- Voice recognition software
- Organisational/outlining/drafting software
- Online writing support

### **Maths:**

- Calculator
- Mathematical Chart

## **UNIT 6: Roles and Responsibilities of Various Stakeholders in Supporting Learners with SLDs**

### **2.1 Learners**

Learners with specific learning difficulties can benefit in a number of ways in collaboration. These may include:

- i) Learning by being together/interacting with others; it provides a nurturing learning environment which helps all learners to learn and benefit from one another and their teacher's support. Learners learn using their individual learning style(s) and at their own pace. This helps them to develop their potentials.
- ii) Developing a positive understanding of themselves and others; when learners of different abilities, cultural backgrounds, and social status play and learn together, they develop positive self-esteem and confidence, appreciation of the differences they have, and acceptance of one another.
- iii) Developing friendships: As learners with specific learning difficulties and others learn and interact with one another, they develop social skills and friendships. They also develop different ways of supporting those among them who need help.
- iv) Learning academic and practical skills; With appropriate support and instruction, learners with specific learning difficulties and others learn to read, write, draw, and do mathematics, crafts and other subjects in an inclusive classroom setting. They learn the importance of collaborating in classroom and out of school activities.

### **2.2 Parents and Other Family Members**

Parents and other family members of learners with specific learning difficulties are primary stakeholders; their involvement is crucial in the provision of education to their children.

Parents are key members of the team because they have unique knowledge of their children's strengths and needs. Parents have the right to be involved in meetings that discuss the identification, evaluation, Individualised Educational Program (IEP), developments and educational placement of their children.

Parents and other family members can play many important roles to ensure that their children access education, including:

- i) Enrolling children in schools within reach to enable them, (the parents) monitor and regularly support the children's learning.
- ii) Discussing with teachers and head teachers their (parents') goals, expectations and preferences for the children.
- iii) Encouraging their children to participate in all learning activities and to make friendship with classmates.
- iv) Knowing and advocating for the rights of their children, the services, and support they require.
- v) Raising awareness about their children's potential and needs among teachers, their children's classmates, and the school management.
- vi) Providing learning materials for their children and taking part in some classroom and school activities.
- vii) Assisting teachers in some curriculum adaptations based on the needs of their children.
- viii) Supporting schools in environmental modifications to ease accessibility for their children.
- ix) Facilitating resource persons (other professionals) to sensitise or support teachers in specialised areas of need for the children.
- x) Promoting respect, discipline, harmony, and cooperation among teachers and all children in school.
- xi) Taking part in mobilising resources for the school.
- xii) Ensuring continuity of learning processes. For example the parent must ensure that his or her child is supported to learn from home not necessarily school alone. This enables the learner get adequate support and make more practice in different learning programmes or contexts.

## 2.3 Teachers

You are undoubtedly the primary stakeholders to collaborate with. This is because you are the principal implementers of educational provision.

Therefore, you should be able to:

- i) identify learners with SLD and provide remedial teaching.
- ii) show expertise in differentiated teaching so that each and every learner in the class benefits.
- iii) sensitise other learners about SLD and ensure that learners with SLDs are not stigmatised.
- iv) show an expertise in your subject and have good communication skills.
- v) show enthusiastic about teaching all learners with various learning needs.
- vi) encourage co-curricular activities like debate, quiz, writing, etc.
- vii) encourage initiatives and creativity among the learners.
- viii) train the learners in the art of answering questions satisfactorily.
- ix) should be available to the learners even outside class hours.
- x) show concern for all learners, that is, be a parent, a friend, a philosopher and a guide.

## 2.4 Head teacher

As the most senior teacher and leader of a school, she/he is responsible for the education of all learners, management of staff and school policy making. The head teacher leads, motivates and manages staff by delegating responsibility, setting expectations and targets, and evaluating staff performance towards promoting the learning of all learners with various learning needs.

The head teacher's main responsibilities in supporting learners with SLDs involve:

- i) Formulating overall aims and objectives of the school and policies for their implementation
- ii) Working with Board of Governors (BoG) and senior colleagues to deploy staff effectively and recruit new staff
- iii) Meeting with other education professionals, and representing the school at conferences and other events outside the school, in the local community and nationwide
- iv) Ensuring the good financial management of the school
- v) Managing accommodations, adaptations and modifications
- vi) Establishing and maintaining links and partnerships with stakeholders in the promotion of learning

## **2.5 Physiotherapists**

If the learner's SLD is associated with injury, illness, or disability through movement and exercises, a physiotherapist provides manual therapy, education, and advice.

## **2.6 Psychiatry**

The psychiatrist's role is to diagnose, prevent, study, and treat the effects of SLDs.

## **2.7 Speech therapists/Pathologist**

The role of speech therapists is to help learners with SLDs in speech and language problems to minimise on speech and language deficiencies.

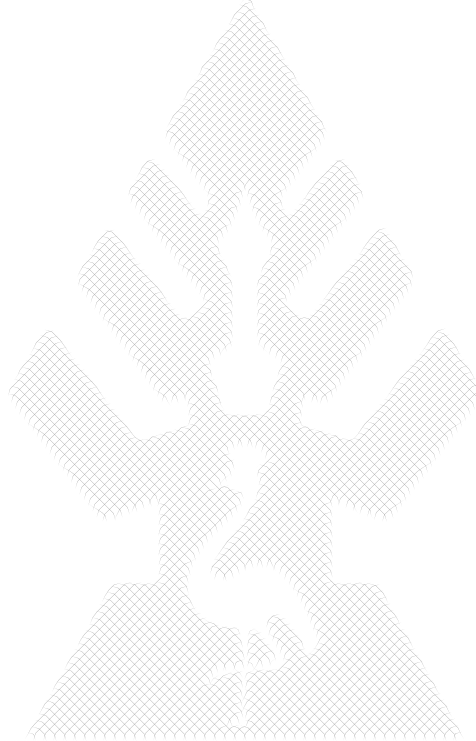
## **2.8 Psychologists**

The psychologist is a leader in issues pertaining to assessment, mental health, home-school and school-agency collaboration. He also advises in the management of SLDs' academic progress and career, and provides a complete picture and action plan that will address the learner's needs.

## 2.9 Rehabilitation Officers

Community Development Officers (rehabilitation officers) have a role of improving the quality of life for various groups in the community. The officers involve themselves with different council departments such as parks, health care, community learning, housing and social services.

Community development is a process where by those who are marginalised and excluded from society are enabled to gain self-confidence and to join with others.



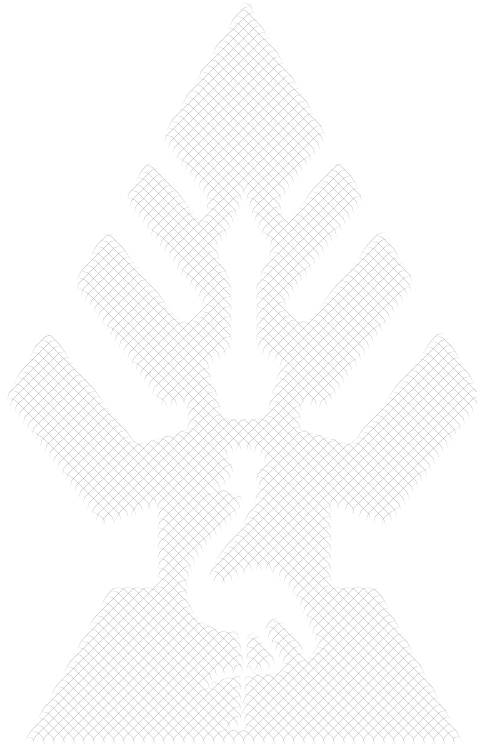
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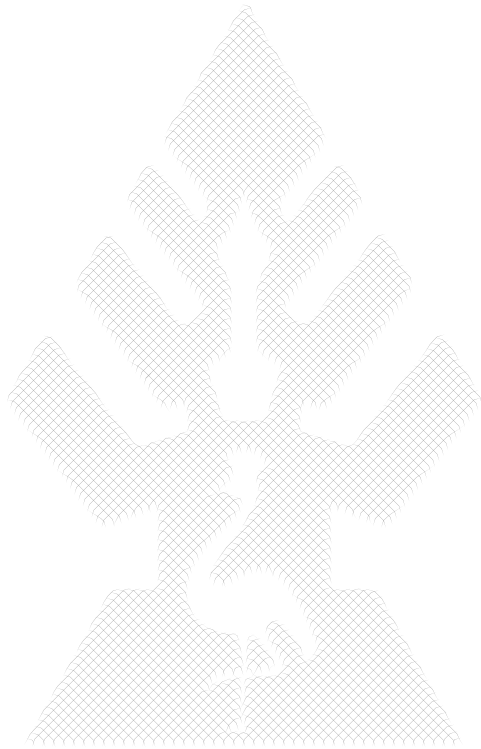
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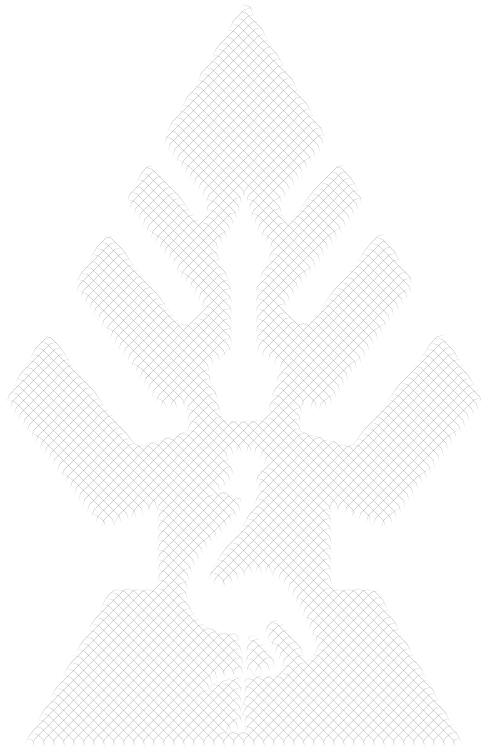


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