basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

GUIDELINES FOR INCLUSIVE TEACHING AND LEARNING

2010

EDUCATION WHITE PAPER 6

SPECIAL NEEDS EDUCATION

BUILDING AN INCLUSIVE EDUCATION AND TRAINING SYSTEM

2010

Directorate Inclusive Education
Department of Basic Education
Private Bag X895
Pretoria 0001
(012) 354 4094
Fax (012) 323 7749
www.education..gov.za
www.thutong.org.za/Learningspaces/InclusiveEducation.aspx

TABLE OF CONTENTS

Glossary

Augmentative and Alternative Communication (AAC)	AAC strategies describe the way people supplement their communication when they cannot speak clearly enough to be understood by those around them. These strategies include a wide range of communication methods ranging from gestures and communication boards to assistive communication devices.
Barriers to learning	Refer to difficulties that arise within the education system as a whole, the learning site and/or within the learner him/herself which prevent access to learning and development for learners.
Category of disability	The current organiser for schools, funding and post provisioning in the special education system. These organisers have been weighted and they include: Multiply disabled, deaf, hard of hearing, blind, partially sighted, deaf/blind, cerebral palsy, specific learning disability, behavioural disorder, mild or moderate intellectual disability, severe intellectual disability, physical disability, autistic spectrum disorders, epilepsy, attention deficit disorder, with/without hyperactivity.
Curriculum Differentiation	It is the process of modifying or adapting the curriculum according to the different ability levels and learning styles of learners in one class. Differentiation is intrinsic to all aspects of flexible curriculum delivery, namely the content selection, the way in which it is taught or presented and the way in which the learner's performance is assessed. For example, the same activity can be taught to a class with learners who have diverse needs ranging from those with intellectual disabilities to those who are gifted, by differentiating what is taught, how it is taught and how the learners demonstrate that they have achieved the learning outcome.
Curriculum Adaptation	Refers to making aspects of the curriculum accessible such as the teaching and learning materials, the classroom environment and assessment. For example when material is made accessible by translating it into Braille, language is simplified and additional time is allocated in assessment
District Based Support Teams (DBST)	Groups of departmental professionals whose responsibility it is to promote inclusive education through training, curriculum delivery, distribution of resources, identifying and addressing barriers to learning, leadership and general management.
Full-Service Schools (FSS)	Ordinary schools which are specially resourced and orientated to address a full range of barriers to learning in an inclusive education setting.
Institution Level Support Teams (ILSTs)	Teams established by institutions in general, further and higher education, as an institution-level support mechanism whose primary function is to put in place co-ordinated school, learner and educator support services.
Individual Support Plan	A plan designed for learners who need additional support or expanded opportunities, developed by educators in consultation with the parents and the Institution-level Support Team.

Lead Professional	A Lead Professional is a member of the DBST who will coordinate the assessment process and decision-making on support packages needed and support provision and monitoring for learners.
Level of support needs	Scope and intensity of support needed at a system, school, educator and learner level. The main organiser for schools, funding and post provisioning in the inclusive education system.
Reasonable Accommodation	Reasonable accommodation means necessary and appropriate modification and adjustments not imposing a disproportionate or undue burden, where needed in a particular case, to ensure to persons with disabilities the enjoyment or exercise on an equal basis with others of all human rights and fundamental freedoms
Special Schools (SSs)	Schools equipped to deliver education to learners requiring high-intensive educational and other support either on a full-time or a part-time basis.
Special Schools/Resource Centres (SpS/RCs)	Special schools transformed to accommodate learners who have high intensity support needs, as well as provide a range of support services to ordinary and full-service schools.
Support Needs Assessment (SNA)	Process of determining the additional support provision that is needed. The process is guided by the various sections of the SNA form
Support Package	A package of support needed to address the barriers identified for each child or school to address the challenges/barriers experienced by learners. Packages vary from level 1 to level 5, in terms of intensity and variety. Each consists of a variety of resources which may be human, physical, or material, or a combination of these.
Support programmes	Support programmes refer to structured interventions delivered at schools and in classrooms within specific time frames.

INTRODUCTION

The right of every child to access quality education is enshrined in South Africa's Constitution. In 2001, the Minister of Education launched Education White Paper 6, the Policy on Inclusion, which spells out how barriers to learning should be removed from, and how inclusive education should be gradually introduced into, the entire education system.

In 1994, South Africa signed the Salamanca Declaration, which commits over 94 participating nations to pursue the goals of making education available for all children and youngsters.

In 2000 in Dakar, Senegal, the South African government committed to the Education For All (EFA) goals, which were first launched in Jomtien, Thailand in 1990. Two of the six EFA goals are to:

> *"ensure that the learning needs of all young people and adults are met through equitable access to appropriate learning and life-skills programmes";* and
>
> "*improve all aspects of the quality of education and ensure excellence of all so that recognized and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills"*

In 2007, South Africa signed the United Nations Convention on the Rights of Persons with Disability and, in 2008, was amongst the first 20 countries to ratify the Convention. Article 24 of this Convention specifically states that:

> *"persons with disabilities should be guaranteed the right to inclusive education at all levels, regardless of age, without discrimination and on the basis of equal opportunity."*

In making education accessible to all, the Department of Education introduced the National Curriculum Statement (NCS), which is underpinned by the principles of social justice, human rights, a healthy environment, and inclusivity. The principle of inclusivity, in particular, highlights the need to celebrate diversity among our learners and encourages the creation of welcoming cultures in schools and ensuring participation of all learners so that they are all valued and they are all made to feel they belong.

In field testing the implementation of inclusive education, the Department of Education has paid specific attention to how children with barriers to learning – including disabilities – may be assessed to determine the levels of support needed to maximize opportunities for success

in mainstream classrooms. The strategy for Screening, Identification, Assessment and Support (SIAS) has been developed and field tested with District Based Support Teams (DBSTs) as a tool for schools to plan for learner support. Once educators have determined the nature and extent of the support required by learners experiencing barriers to learning, planning for inclusive teaching and learning should follow naturally. This will usher in the changes the Guidelines to Inclusive Teaching and Learning seek to make.

These Guidelines should be seen as part of this two-pronged programme to make classrooms accessible to all kinds of learners. At this point of implementing the National Curriculum Statement, information on the various barriers to learning has to be provided, especially to those educators who are in designated full service schools, to fulfill the meaning of the notions that “no two children are alike” and “all children can learn”.

This document caters for this need by providing additional information for educators on conditions, illnesses, disabilities and deprivations that impact on children’s ability to learn effectively. It outlines characteristics, the barriers they present, and strategies for effective teaching. Even though disabilities are addressed, this is not done according the medical model. The information presented about disabilities in this document is information that is critical for teachers who have not yet dealt with learners with disabilities. We look at disabilities and learning difficulties from the point of view of learner-environment interaction, thereby promoting participatory approaches to learning and teaching. This approach also provides information on how specific barriers to learning present themselves, how they affect the learning experience, and how educators, particularly those in full-service schools, should mitigate the effect of the barrier(s).

Furthermore, these Guidelines seek to prevent the common misconception that barriers to learning exist only within the learner, and that barriers to learning are best taken care of during the practical session of a lesson by giving special needs learners less demanding tasks. This would constitute a lowering of expectations, something the National Curriculum Statement (NCS) is strongly against.

These Guidelines broaden the understanding of pivotal concepts on planning for diversity. They are meant especially to assist teachers to plan to address the diverse needs of their learner populations in an educationally sound and consistent way. Planning for diverse learner needs is presented as an integral part of curriculum planning, rather than an additional “nice-to-have” option. To illustrate this process, this document includes profiles of learners with specific needs, examples of learning programmes, schedules and lesson plans. These demonstrate how learners with specific needs could be supported. These Guidelines,

therefore, have relevance for ordinary schools, full service schools, special schools, and special schools as resource centres.

This document explores two key curriculum processes: curriculum adaptation and curriculum differentiation. *Adaptation* is presented as a strategy for ensuring effective curriculum delivery to all learners, particularly learners with disabilities. *Differentiation* is presented as a key strategy to cater for the different levels of ability, and to mitigate the effects of various barriers to learning. *Adaptation* refers broadly to modification and/or adjustment of lessons, activities and materials to make them suitable for different learner needs. For example, a comprehension passage that is presented in the form of a picture, diagram or cartoon will be adapted for a blind or partially sighted learner to a narrative describing the pictorial scene. Such a description will include all of the picture's salient features to enable the learner to visualise the scene in question.

Differentiation, on the other hand, assumes that learners vary in their cognitive abilities. It is the responsibility of educators in inclusive schools to plan lessons in such a way that they range from the most basic level to the most complex level. All learners are exposed to the same concept. The content may be presented in multimedia format to enable learners with different "intelligences" to access it. Learners are given different options in presenting their work, so that every child is assessed in terms of his or her strengths. Teaching methodology is varied to include collaborative teaching. Grouping of learners is also varied to enable all learners to benefit from one another and push levels of participation beyond the mundane. At the level of the lesson plan, for example, *differentiation* implies adjusting tasks to appeal to the various interests, needs, aptitudes, experiences and previous achievements of individual learners. In this document, differentiation has not been extended to include strategies for learners with exceptional academic aptitudes.

This document also does not deal comprehensively with all administrative aspects such as recording progress, assessment and promotion issues.

In conclusion, these Guidelines are primarily intended to support those dedicated teachers who work to create inclusive educational environments in which all learners can attain knowledge, skills, attitudes and values that will better their lives. The Guidelines further seek to demystify the concept of barriers to learning by providing more information on what constitutes barriers to learning, while providing strategies that foster greater participation for all learners.

What is presented here provides a starting point that forms a basis for more focused curriculum discussion on strategies for the different phases in the education system, as well as for specific challenges in the classroom environment, including multilingualism and the complex socio-cultural matrix that is South African society.

SECTION ONE

BARRIERS TO LEARNING AND THE NATIONAL CURRICULUM STATEMENT

This chapter seeks to explore what constitutes barriers to learning. It looks at disability as a barrier as well as how language and communication issues are barriers for some learners. Major learning and participation barriers include social issues, negative attitudes, lack of acceptance, unfavourable socioeconomic factors, lack of community involvement, lack of parental recognition, and lack of parental participation. These lead to exclusion and the loss of opportunities. According to Education White Paper 6, barriers to learning may arise from a range of factors, including physical, mental, sensory, neurological and developmental impairments as well as psychosocial disturbances, differences in intellectual ability, differences in life experiences, and socioeconomic deprivation.

1. Introduction to barriers to learning and development

All barriers to learning and development should be addressed in our classrooms and schools. Frequent causes of barriers include:

- disability
- language and communication
- lack of parental recognition and involvement
- socioeconomic factors
- attitudes.

1.1 Disability as a barrier

1.1.1 Understanding disability as a barrier to learning and development

Most understandings of disability relate to individual deficits. As a result, disability has always been regarded as a learning barrier. The most common barriers include:

- visual loss
- hearing loss
- speech and language difficulties
- intellectual disabilities
- physical disabilities
- psychological disorders
- neurological disorders.

1.1.2 Policy implications and guidelines for addressing disability as a barrier

Learners who experience barriers to learning as a result of disability should be welcomed in ordinary school environments with the necessary support, in order that they may achieve their full potential. Teams that include parents, teachers and other relevant professionals should establish the nature and extent of support needed by the learner, making use of the processes outlined in the *Strategy on Screening, Identification, Assessment and Support* (SIAS).

In situations where children with disabilities may not achieve certain assessment standards in specific learning areas on account of their disabilities, a policy for the straddling of grades needs to be developed in order to prevent such learners from being excluded, as research has proven that grade retention does not remedy such situations. Cases may include:

- Dyslexia and the acquisition of additional languages
- Dyspraxia and communication
- Dyscalculia and Numeracy.

In addition, norms and standards for the provision of resources and assistive devices for learners with disabilities have to be developed in order for funding to be channelled towards providing support for such learners in mainstream schools.

1.1.3. Language and communication

1.1.3.1 What are the common barriers associated with language and communication?

There are normally three main barriers related to language. Firstly, some learners find themselves in situations where the school's language of teaching and learning is either rarely or never used at home, thereby compromising effective learning.

The communication needs of learners requiring South African Sign Language (SASL) as a language of teaching and learning are sometimes not met due to difficulties experienced in recruiting SASL-proficient educators.

The provision of technical support for learners who require it in order to communicate, is equally important.

1.1.3.2 Guidelines to address language and communication barriers

All learners are to learn their home language and at least one additional South African official language. For purposes of teaching and learning, South African Sign Language is treated as an official language. Braille – as a code – may be used as a medium of communication and learning.

When learners enrol in a school where the language of learning and teaching is not their home language, school management and teachers of all the learning areas and or programmes should ensure that support and supplementary learning in the language of learning and teaching is provided until such time that learners are able to learn effectively through the school's medium of choice. In such instances, it is the responsibility of each individual teacher to ensure that the language of learning and teaching does not become a learning barrier. Parents should be encouraged to participate in interventions regarding language.

Learners whose home language is not the school's language of learning and teaching should receive particular attention. Accelerated language acquisition should be supported so that the learner may work towards being assessed according to the assessment standards of the appropriate language level (home language, first additional language or second additional language).

1.1.4 Lack of parental recognition and involvement

1.1.4.1 Barriers and difficulties that arise as a result of a lack of parental recognition and involvement:

- Parents whose children do not utilise oral communication experience communication barriers with their children (e.g., speaking parents of a deaf learner who uses SASL for communication and learning).
- Difficulties around parental support of learners may arise due to a range of situations (e.g., a parent who cannot read Braille would not be able to support a grade one learner with his or her Braille homework).
- Parents are not always adequately informed of their children's problems or progress and are therefore often deprived of the opportunity to participate in their children's development. Conversely, some parents do not keep their teachers informed.
- Parents who are unable to understand their children's emotional and/or behavioural problems may in some cases aggravate their children's barriers.

- Parental non-involvement and non-recognition of the parents by the system create a lack of respect for parents as informed role-players in the assessment and development of their children.

1.1.4.2 Policy implications and guidelines fostering and promoting parental recognition and involvement

- The roles of parents as partners in their children's learning and school life need to be supported and upheld.
- Parents have a key role in the screening, identification, assessment and support of their children for effective decision-making regarding the nature and extent of the support their children require.
- When parents take an active interest in their children's teaching, learning and assessment, this enhances inclusion.
- In the case of certain disabilities and illnesses, it is imperative that the parents consult community-based clinics and/or other professional practitioners (including teachers) in order to conduct an initial assessment and to plan a suitable course of action for the learner. Parents have a responsibility to share information with the school that will facilitate inclusion. Early identification of disability is crucial for effective strategic intervention.
- General newsletters can assist in keeping parents informed of school programmes and developments. This is particularly important for boarding schools, where distance works against parental involvement and participation in the school.
- Information sessions and workshops to enable parents to better understand their children and their emotional and behavioural problems are effective. Staff from district-based support teams, including psychologists and social workers, could assist at such workshops.
- Where appropriate, school-based support teams should be strengthened by expertise from the local community, district-support teams and higher education.
- Schools need to be informed about, and responsive to, the communities from which their learners come. Issues of poverty, crime and violence also have an impact on learning.

1.1.5 Socioeconomic barriers

1.1.5.1 Barriers created as a result of socioeconomic factors

- Poor reading and print background (learners have not had preschool exposure to literacy and print in general). The parents of such learners have often had limited education opportunities.
- A lack of exposure to numerical concepts.
- Sensory deprivation resulting from a lack of opportunities during early childhood to explore the immediate and broader environments.
- Poor oral language development as a result of a lack of communication, interaction and learning opportunities.
- A poor self-image.
- Children with absentee parents who often return to empty homes from school tend to experience social isolation and developmental deprivation.
- The impact of alcoholism, substance abuse, violence and neglect.
- Dysfunctional and anti-social behaviour patterns (e.g., petty theft and lying).
- Depression and hopelessness in adults and learners.
- Teenage pregnancy.
- Learner-headed households often require significant additional responsibilities from learners.
- Mobility of families could create a lack of continuity in learning as a result of school-hopping.
- Changes in the family structure and family dynamics.
- Late school enrolment.
- Learners with challenging social conduct, including aberrant sexual behaviour.

1.1.5.2 How can we overcome the socioeconomic barriers?

This question does not imply a ‘welfare’ approach to poverty; it is a serious concern about the impact of poverty on learning and teaching.

- Teachers need to be sympathetic towards learners and facilitate the creation of a welcoming and supporting environment.
- Experiences that involve stimulation, enrichment and play must be created. These could be enrichment programmes that involve hands-on experiences, play with concrete objects. and reading to learners (to foster the understanding that print is meaningful.
- At a social level, an environment should be created that is comforting, is compatible with listening to learners’ voices as well as the detection of distress and depression.
- The school needs to reach out to communities, and should be a secure haven for learners.

- School nutrition programmes should help mitigate the effects of adverse socioeconomic factors.
- Schools should establish meaningful relationships with the courts, police, relevant NGOs (e.g., child welfare and SANCA) and the Department of Social Development. Joint procedures to discourage any form of abuse should be developed. When learners become perpetrators or victims of abuse and crime, relationships with these institutions are crucial. These issue are not limited to poor communities.
- Where district-based support teams have been established, such teams should be called upon to assist in matters of abuse and other learner-related issues. Where such support teams do not yet exist, institution-level support teams must be established.
- Use of accelerated academic bridging programmes and programmes-to-work links are vital for learners who enter the system late or who have experienced severe interruption in their schooling as a result of socioeconomic factors. Fast-tracking to acquire basic Literacy, Numeracy and Life skills through accelerated programmes, with a view to assisting the learner to catch up with his or her age cohort, is appropriate in such cases.
- Baseline assessment should be used to establish a learner's current academic level and to facilitate placement in the appropriate grade and/or set of learning programmes.

1.1.6 Negative attitudes

1.1.6.1 Understanding negative attitudes as barriers to learning

Negative and harmful attitudes towards difference in our society remain critical barriers to learning and development. Discriminatory attitudes resulting from prejudice against people on the basis of race, class, gender, culture, disability, religion, ability, sexual preference and/or other characteristics manifest themselves as barriers to learning when such attitudes are directed towards learners in the education system.

1.1.6.2 How can we overcome negative attitudes towards learners who experience barriers and stimulate their inclusion in ordinary education?

- The labelling of learners should be discouraged since it learners find it difficult to grow beyond the limitations of the label. It is important for teachers, parents and peer groups to adopt positive attitudes towards all learners, regardless of perceived differences.
- Learners should not be categorised. They are often are placed in a particular learning environment because of the category of their disability rather than because of their

specific learning needs. In many cases, categorisation was convenient for the system, and not in the learner's best interests.

- Do not discriminate against learners who are HIV-positive or who have AIDS. Ignorance about HIV/AIDS leads to false assumptions and/or discrimination. All learners and staff should be treated equally.
- All learners should be viewed in a positive light, and there should be a determined effort to establish what every learner's real strengths are for the purpose of development.
- Learners with disabilities find it difficult enough to develop as it is, without further external discouragement.
- Schools must be welcoming environments for all learners, since any negative attitudes on the part of adults and learners in a school environment influences learners.
- Schools should embark on positive awareness campaigns about difference and the value of celebrating diversity based on South Africa's Constitution.

1.2 The National Curriculum Statement (NCS)

The National Curriculum Statement (NCS) adopts an inclusive approach by specifying minimum requirements for all learners. The special educational, social, emotional and physical needs of learners will be addressed in the design and development of appropriate learning programmes (DoE 2, p 10.)

The National Curriculum Statement has several components that allow for adaptation. Its flexible features include:

- "The outcomes and assessment standards emphasize participatory, learner-centered and activity-based education. They leave considerable room for creativity and innovation on the part of educators in interpreting what and how to teach." Overview of the National Curriculum Statement (DoE 1, 2002).
- Learning outcomes do not prescribe content or method. Therefore, content and methodology could be appropriate for a learner's needs. (DoE 1, 2002 p 14).
- Activities can be flexible. Teacher's Guide for the Development of Learning Programmes (DoE 2, 2003 p 10).
- The context can be made relevant to the learners' needs (DoE 2, 2003, p 10).
- More time can be provided for the assessment and execution of a task. (DoE 2, 2003, p 11).
- Assessment strategies are flexible (DoE 3, p 1).
- The learning programme can be structured to meet the needs of the specific learners (DoE 3 p 2).

- Learners can communicate using South African Sign Language (SASL), Braille, assistive devices or any other communication method. (DoE 3 p 1).
- Expectations can be adapted to the abilities of the learner within the framework of high expectations (DoE 2 p 12).
- The curriculum emphasises the principles of social justice, healthy environment, human rights and inclusivity (DoE 3 p 5).
- Teachers are encouraged to consider any particular barriers to learning and/or assessment that exist in different learning areas and make provision for these when developing learning programmes (DoE 3 p 7).
- Assessment standards can be divided into components (DoE, 2003: Teacher's Guide for the development of Learning Programmes, p 1).
- A lesson plan time allocation can range from a single activity, to a term's teaching, or more time if necessary, depending on learner needs (DoE, 2003: Teacher's Guide for the development of Learning Programmes, p 1).
- Time allocation and weightings regarding learning outcomes and learning programmes should vary according to learner needs (DoE 3 p 6).
- The number and nature of learning programmes at a special school, special school as resource centre, or full-service school can vary depending on the availability of staff, resources and learner needs.
- Flexibility in the selection of appropriate assessment standards according to the individual needs of a learner is possible on the recommendation of the assessment team in the case of a learner not capable of achieving a General Education Certificate (GEC).

Work schedules are not limited to a grade or year. Differently gifted learners may require the process to be accelerated or slowed down. The Guidelines to Inclusive Learning and Teaching are a sequel to the strategy for Screening, Identification, Assessment and Support (SIAS), which has been developed to enable teachers to identify learner needs. Learning programmes, work schedules and lesson plans have to be designed on the basis of the needs and strengths profiles of the majority of learners in a school, phase or grade. Lesson plans have to provide differentiated learning, teaching and assessment activities to ensure effective multilevel teaching. However, in addition to these forms of differentiation, teaching and assessment activities will be adapted at lesson plan level for learners who need **specific additional support** as a result of individual barriers to learning. Those involved in this process of adaptation must include the teachers and parents as well as school-based and district-based support teams (where they exist). Other relevant professionals from the communities can also be consulted.

SECTION 2

DIFFERENTIATION OF LEARNING PROGRAMMES, WORK SCHEDULES AND LESSON PLANS TO ACCOMMODATE ALL LEARNERS IN AN INCLUSIVE EDUCATION SYSTEM

2.1 Introduction

Learners presently in the General Education band who experience barriers to learning attend ordinary schools, full-service schools, special schools, or special schools as resource centres. Some of these schools already have a range of human and physical resources that can be utilised to expand opportunities for all learners. These may include teachers with specialised competencies, adapted or modified classrooms, workshops, computer rooms for addressing all barriers to the learning and teaching of work-related skills, where applicable.

Differentiation of existing learning programmes, work schedules and lesson plans as well as newly designed learning programmes, work schedules and lesson plans to meet learner needs must by no means compromise the standard of the curriculum as prescribed by the NCS Grade R-9 (2002). An attempt is made here to provide principals, school management teams, institution-level support teams, district-based support teams and all teachers with guidelines that will assist them with the differentiation, modification, adaptation, planning and management of the curriculum in order to address diversity.

2.2 Learner needs and learner profile of a school

The developmental needs of learners should not prevent them from accessing the National Curriculum Statement or progressing with their age cohort, as the value of peer interaction is essential for social development and self-esteem. The 1998 Policy on Assessment allows for learners to spend a maximum of one extra year per phase. An additional year, over and above what the policy currently states, may be granted by province's head of education. This would mean that, in some cases, learners experiencing barriers to learning may be older than their peers. In any school, whether it is an ordinary school, a full-service school, a special school, or a special school as a resource centre, there are learners with divers needs. The majority of these needs can be dealt with in a classroom at the lesson plan level through differentiated and/or adapted tasks or activities and alternative assessment within a framework of effective learner-centred teaching.

However, a minority of learning and support needs, whether in an ordinary or any other type of school, centre or class, might require individualised attention. These needs will be determined through the SIAS process, especially through the Support Needs Assessment Section 3. In this case, an individual support plan (ISP) must be developed. This may include the development of several smaller, intermittent steps towards the attainment of assessment standards. It may also include providing support in terms of assistive devices, such as a Perkins Brailler. In this way, the level of development of learners can be taken into account so that they can still work in the same context and/or content towards achieving the same outcomes. All learners must, therefore, experience their learning as meaningful and they work towards the same type of activity. The provision of support plays a major role in accommodating these learners in an education system.

For the minority of learners, individual support plans in which the support needs of that particular learner must be addressed must be a viable option. Such individual adaptations should include a learning pathway that consists of an individual learning programme, a work schedule or year plan, and the specifically adapted lesson plans. They could also include a range of support interventions, such as peer support, assistive devices, and environmental adaptations. Such specialised planning should be done in collaboration with the institution-level support team (ILST), taking into account the provision of resources as well as the development of appropriate skills and knowledge, values and attitudes.

The support needs of the majority of learners in a special school, special school as resource centre, or full-service school will be different to those of the majority of learners in an ordinary school. Therefore, special schools, full-service schools, and special schools as resource centres need to take their learner profiles into account when designing learning programmes, work schedules and lesson plans. The levels and types of resources and activities in full-service schools, special schools, and special schools as resource centres must be true to the profile of the majority of the learners in those schools. The provision of resources, whether human, physical or material is a further determining factor.

Home tasks are critical in the learning and development of a learner who experiences barriers to learning. Caution must be taken not to overload such a learner with homework. Where more than one educator teaches a particular class, it is essential that a homework timetable be in place. The homework tasks should be clearly explained in the classroom, and written down by the learners. When learners encounter barriers to reading and/or writing, alternative methods of recording homework tasks should be utilised. Peer support for learners experiencing barriers to learning is of great value and can be enhanced through a “buddy” system.

2.3 Implications for differentiating learning programmes, work schedules and lesson plans at special schools, special schools as resource centres, and/or full-service schools

2.3.1 Differentiation and the learner

A differentiated curriculum offers a variety of ways for learners who differ in abilities, knowledge and skills to access a shared curriculum. Educators offer adaptations to what learners learn (content), how learners learn (process), and how learners demonstrate what they have learned (product).

"*Differentiation is not a recipe for teaching. It is not an instructional strategy. It is not what a teacher does when he or she has time. It is a way about teaching and learning. It is a philosophy. As such, it is based on a set of beliefs, that:*

- *Students who are the same age differ in their readiness to learn, their interests, their style of learning and their life circumstances;*
- *The differences in students are significant enough to make a major impact on what students need to learn, the pace at which they need to learn and the support they need from the teachers and others to learn it well.*
- *They will learn best when supportive adults push them slightly beyond where they can work without assistance….."*

http://www.adifferentplace.org/

2.3.2 Differentiation and design of learning programmes

A learning programme is a phase-long plan that details:

- The sequencing of learning outcomes and assessment standards across the phase to ensure a coherent teaching, learning and assessment programme;
- The core knowledge and concepts or knowledge foci selected to attain the learning outcomes;
- The context that ensures that teaching and learning are appropriate to the needs that exist in the communities, school and classroom; and
- The time allocation and weighting allocated to the different learning outcomes and assessment standards in the phase.

When developing the learning programme, teachers also need to consider:

- How integration within and across the learning areas will happen;

- The resources needed to determine the teaching, learning and assessment activities; and
- Any special or national events likely to be included in the school calendar.

These considerations should be addressed in depth and detail when planning the work schedule and lesson plans.

A team-planning approach will promote coherence, integration and cohesion in the learning programme for the phase. Such and approach also provides for a framework for the development and effective use of learning and teaching support materials.

(*DoE 2: Teacher's Guide for the Development of Learning Programmes)*

The differentiation of the design of learning programmes in special schools, special schools as resource centres, and full-service schools to suit the needs, strengths and interests of learners experiencing barriers to learning could influence:

- The straddling of grades and phases
- The number of learning programmes
- The weighting of learning programmes
- The duration of learning programmes
- Measures for portability
- Decision-making criteria around progression and certification
- The formulation of individual learning programmes.

2.3.3 Differentiation and planning of work schedules

At the start of each year, baseline assessment tasks must be set in order to establish the nature and extent of learners' current achievement levels. Initial and ongoing observation should be done by the teacher to determine how, if needed, each lesson can be differentiated and adapted to accommodate all the learners in the class. This will also inform all support planning and developmental assessment. Educators should ensure that a range of activities and forms of assessment are used and applied in the class.

A *work schedule* is a *year-long programme* that shows how teaching, learning and assessment will be sequenced and paced in *a particular grade.* It is a delivery tool, a means of working towards the achievement of the learning outcomes specified in the learning programme, and it incorporates the assessment standards that will be achieved in that grade.

The principles that inform differentiation apply to planning the work schedules for a class with divers learner needs. Baseline assessment, which needs to be conducted at the beginning of the year, should provide the teacher with the information that will inform the work schedule planning for the class. Learners with a divers array of needs will be accommodated in the number of activities planned, the strategies for facilitating teaching and learning, the resources needed, and the time needed for both learners who are straddling grades and learners who have to take on additional material to meet their academic potential.

2.3.4 Differentiation and lesson planning

Differentiation at the level of the lesson, task and activity – at the interface between the proposed curriculum and the learning needs of individual pupils – implies adjusting tasks to the various interests, needs, aptitudes, experiences and previous achievements of divers groups of pupils. (Richard Byers & Richard Rose 2004). This entails careful consideration of:

- **Content** – so that learners work on various aspects of the same subject matter;
- **Interest** – ensuring that activities have relevance to pupils' own experience and sources of motivation;
- **Level** – enabling pupils to work on similar concepts at levels that reflect their previous achievements;
- **Access** – so that material is presented to learners through various modes, whether aural, visual, tactile, concrete, symbolic, linguistic or via information technology;
- **Structure** – whereby work may be presented, for example, in small, developmentally sequenced, subject-specific steps for some learners and in conceptually holistic integrated chunks for others;
- **Sequence** – allowing learners access to material in varying orders, which may be planned in advance or determined spontaneously through learner preference;
- **Pace** – encouraging learners to work through material at varying speeds;
- **Response** – acknowledging that learners will respond to similar activities in a variety of ways, either because the teacher has planned to request different outcomes from different individual learners or because learners spontaneously respond in different ways;
- **Staff time** – allowing individual learners different amounts and qualities of staff support, varying from intensive one-on-one input, through pauses permitting delayed responses, to occasional guidance for learners who work mostly independently;
- **Teaching style** – ensuring that learners experience a range of approaches to teaching from didactic classroom presentations, through investigative, experiential field work to discursive tutorials;.

- **Learning style** – giving learners opportunities to respond to teaching in a variety of ways, whether by listening passively, participating actively in explorations and discoveries or taking the lead in solving problems;
- **Grouping** – offering a balance of individual, paired, group and class, departmental and whole-school learning experiences.

(Byers et. al., p 79)

2.4 Features of the National Curriculum Statement and differentiation

2.4.1 Designing down

Designing down is one of the important features of outcomes-based education and the National Curriculum Statement. It involves breaking down the assessment standard in order to build it up in a logical, progressive way. Simply put, designing down involves looking at an assessment standard and dividing this minimum expected set standard for the year-end into smaller, achievable components that are spread across the duration of the year. In other learning areas, the content must be identified and the learning outcomes (which are process learning outcomes) should be applied to the content. This allows time for each component to be achieved step-by-step, working gradually towards achieving the assessment standard by year-end.

2.4.2 The number of learning programmes

The number of learning programmes in the General Education band at special schools, special schools as resource centres, and full-service schools could vary according to the needs, strengths and interests of the learners and individual schools' available human and physical resources.

It is essential that the learning outcomes and assessment standards – as stated in the eight learning areas in the General Education band – are addressed by the various learning programmes at a school, irrespective of the final number of learning programmes offered.

Learners should be in a position to select a set of learning programmes from a variety of learning programmes depending on available resources. It does not matter how many learning programmes are available, as long as they are designed down from the same assessment standards. The knowledge, skills and values learned in the practical components of learning programmes should be transferable to the cognitive component of the learning programme for the achievement of learning outcomes and assessment standards.

In special circumstances, extended learning programmes could be implemented to address the needs of learners.

2.4.3 The weighting of learning programmes

The weighting of learning programmes refers to the percentage of time allocated to a specific learning programme. The mathematics and languages learning areas would be distinct learning programmes and will form the basis for all other learning. Other learning programmes could also address some of the learning outcomes and assessment standards required in the mathematics and language learning areas, thus facilitating total integration of the learning process across the eight learning areas.

The purpose of weighting is to:

- Give learners optimal opportunity to show their competence in achieving the learning outcomes: and
- Provide groups of learners who need temporary intervention the opportunity to engage with certain aspects of the curriculum.

The weighting of learning programmes in ordinary schools will mainly be according to the time allocations stipulated in the Overview document.

2.4.4 The duration of learning programmes

The duration of the learning programmes in ordinary schools is either 4 years in the Foundation Phase (including Grade R) or 3 years in the Intermediate and Senior Phases. The duration of a learning programme can be longer or shorter, based on the learners' range of needs.

The duration of the learning programmes will be linked to the learners' age upon admission and the duration of the learners' stays within the General Education band.

2.4.5 The formulation of individual support programmes

For learners with Autism Spectrum Disorder (ASD), for example, an individual support programme (ISP) will be the backbone and major vehicle for curriculum delivery in a special school as resource centre. The best practice is for a trans-professional team (including parents) to collaboratively develop an ISP based on an in-depth understanding of the learner.

Ideally, such a team would include a psychologist, speech therapist, occupational therapist, and educator, all of whom should be experienced in the field of ASD. Where the full complement of the team cannot be sourced, the educator and parents – as core members – should involve as many other professionals as possible.

Reference to an ISP for ASD learners is made as learners with ASD tend to have irregular learning profiles. For example, a 12-year-old learner might be capable of accessing the Grade 3 Numeracy learning area while functioning on a pre-grade R level in terms of literacy. Such learners cannot access all the learning areas or meet the NCS assessment standards. They have not acquired proficiency in reciprocal language use, a capacity that is assumed of learners entering Grade R. In order to address an ASD need such as developing a functional communication system, the formulation of individualised outcomes is crucial in order to meet the learner's needs. The ISP outcomes formulations and assessment standards, that must be consistently monitored, should reflect a broad, balanced and relevant curriculum to meet the learner's needs.

Whenever learners are ready and capable to access the NCS, be it with ASD-specific methodology, they should be supported in order to be able to do so effectively.

2.4.6 Measures for portability

Learners have the freedom to move between different types of schools. The district-based support team could be involved in the decision-making process. This means that a learner could, for reasons that would have to be in his or her best interest, be transferred from a special school or a special school as resource centre to an ordinary school or full-service school. It could also happen that a learner is transferred from an ordinary school to a special school or a special school as resource centre. Learning outcomes and assessment standards acquired in one type of school are, therefore, transferable to another type of school and will contribute to the eventual achievement of the General Education Certificate. The term, portability of learning and achievements refers to this type of movement of credit a learner has accumulated in school. The district-based support team could be involved in the decision-making process.

2.4.7 Decision-making criteria around progression and certification

The minimum requirements for achieving a General Education Certificate (GEC), as spelt out in the National Curriculum Statement, may not be compromised. However, within this flexible learner-based and learner-paced approach to the curriculum, all learners will be enabled to

achieve their full potential irrespective of whether or not the end result will be a formal General Education Certificate.

SECTION 3

DIFFERENTIATION AND LEARNING AREAS IN THE GENERAL EDUCATION BAND

The General Education phase offers a minimum of eight learning areas for all learners. Some of the common difficulties for learners are outlined below, with suggested strategies for educators.

3.1 Learning Area: Mathematics

3.1.1 Learning outcomes and assessment standards

Learning outcomes 1 (numbers, operations and relationships), 2 (patterns, functions and algebra), 3 (space and shape [geometry]), 4 (measurement) and 5 (data handling) all need adaptation to accommodate all learners, irrespective of their barriers to learning.

- Activity-based learning is essential. Practical experience and practical examples are therefore crucial. Learners experiencing barriers may need to use real objects, pictures, graphics, concrete objects etc. for a longer period in order to grasp mathematical concepts. Moving into abstraction too soon may hinder the understanding of concepts.
- Practicing of memory-training techniques, especially for numbers, is very important.
- The use of resources such as balances and counters are needed to assist learners to meaningfully master concepts in the assessment standards. These visual supports will help the learners to see the relationships between numbers.
- Learners experiencing barriers to learning may require more time to master concepts, understand terminology (vocabulary and grammar), execute tasks, acquire mathematical thinking as well as to be assessed. The number of examples and activities to be completed should be adapted to accommodate learners experiencing barriers to learning. However, the thought process used to do the calculation or solve the problem should not be compromised. The quality of the skills to solve problems should not be comprised for the quantity of problems solved.
- The use of a calculator should be allowed once a learner has understood the basic concepts of addition, subtraction, multiplication and division. Learners can also use calculators to verify calculations.
- Solving problems involving money could involve using real money and real objects or empty containers.

- Learners struggling to understand the number system should still try all other areas of the mathematics learning area mathematics (learning outcomes and assessment standards) such as simple fractions, measurement, plots and graphs.
- Follow the step-by-step formal approach: First teach counting sequence, then cardinality (how many), then teach continue counting, then teach addition, before teaching "commutativity" and place value.

3.1.2 Barriers and strategies for differentiation

BARRIERS EXPERIENCED BY LEARNERS	IMPLICATIONS	STRATEGIES
Numbers, operations and relationships	Learners may: • rote count with no understanding of one-on-one correspondence. • not recognise number symbols or number names. • not count and say the numbers in a one-to-one correspondence • not understand quantity. • not remember or be able to visualise and remember how many they have counted (cardinality). When the learner is asked 'how many,' their response is invariably to recount the objects.	• Pair off: Give the learner any amount of shapes. The learner must place the shapes on the number line (e.g., from number 1 to 5). Do this exercise a few times. • Body exercises for pairing off: Beat the tin with the wooden spoon. Learner has to walk rhythmically on the beat of the drum, one step for each number. • Constant exposure by drawing attention to numbers through everyday experiences (e.g., age, house numbers, clocks, money). Learners must make the connection that the spoken number is represented in a visual form. • Matching number cards, pointing to the number on the number line, matching number cards to their position on the number line. o Touch count each sequenced number. o Move the object into a line as the number is spoken. • When counting objects on paper, cross out the object with a pen as the number is spoken. • Draw a number line on the floor. The learner stands on the naught. Bounce the ball once on each number. No bounce on naught because it is an empty group! • Count real objects often. Allow learners to touch or point to the objects while counting. One word per item. Encourage the learner to slow down when counting. Use shapes that are not too large or too small and do not roll. • Pairing off together with estimation: Use the number line from 1 to 10. Ask the following questions: In my hand I have 8 shapes / blocks. Are there enough shapes for all the blocks? Yes / No. The learner can now put the blocks on the different numbers on the number line. Do the same with other numbers. • Match numbers with shapes/pictures (e.g., 3 = ♦♦♦). • The learner needs to be taught that 'how many' means to retain and recall the last number

BARRIERS EXPERIENCED BY LEARNERS	IMPLICATIONS	STRATEGIES
		counted rather than recounting the number sequence. Teach the cue 'put the number in your head' (e.g., 'How many?' Response should be 5, not 1,2,3,4,5). • Play counting games, which end before the whole set has been counted, also to encourage understanding cardinality.
	Learners may • Confuse Next number / One more / One less and equal • Experience problems with number concept • not understand ordinal numbers: 1st, 2nd, 3rd	• Play counting games that start at numbers other than 1. • Repeated modelling and practice is needed to teach the learner to count from the given number. 'Count to 10. Start at 5. Initially, use a number line / number grid as a visual prompt. The learner can now visually check which is more or less. • Quantity: Use everyday experiences (particularly food) to estimate which is more or less. o Check by pairing objects for each group. The learner then selects which group is preferred. o Using numbers with the same 'ten' (e.g., which is more, 25 or 21?). o Using multiples of 10 (e.g., which is more, 30 or 20?). o Using any two numerals (e.g., which is more, 27 or 31?). • Games Walk to number 3. Give 1 step forward. Where are you now? 4, therefore 4 steps are more than 3 steps. Learner goes back to number 3. Walk 2 steps forward. Where are you now? 5, therefore 5 steps are more than 3 steps. Learner goes back to number 3. Walk 1 step backwards. Where are you now? 2, therefore 2 steps are less than 3 steps. Learner goes back to number 3. Walk 2 steps backwards. Where are you now? 1, therefore 1 step is less than 3 steps. Do a lot of these exercises. • Work with each number in isolation until mastered. • These numbers must relate to real-life experiences (e.g. lining up at the door and sports day). Support auditory memory with a card (visual cue) (e.g., visually and verbally identify 1st, 2nd, 3rd).
	Learners may • not be able to count in 2s, 3s (skip or interval counting) • not understand addition:	• Learners group real objects (e.g., in twos and then count in twos, moving two objects at a time as they count). • Initially, the learner will need to be shown how to miss alternate numerals (e.g., jumping or stepping over cards on the floor, 'jumping' over numbers on a number line). • To prepare for addition, play counting games that start at numbers other than 1. • In order to be able to add, it is very important for

BARRIERS EXPERIENCED BY LEARNERS	IMPLICATIONS	STRATEGIES
	• not be able to subtract • not understand borrowing • not understanding "commutativity" • experience difficulty with place value	understanding place value. • Introduce the vocabulary or symbol to be used while showing the process of adding objects together. Record the number sentence underneath the concrete process. • Pairing off with classification: Take different coloured shapes (two colours, e.g., red and yellow). Place 3 yellow blocks left and 7 red blocks right on the number line. 3 + 7 = 10. • Number charts: The learner has to match the number on the number charts with the matching number on the number line. • The open number line: Walk up to number 5. Ask the following questions: How many steps must you take before you reach number 9? 5 + □ = 9. Walk up to number 6. Place a shape or block on the number 6. Now the learner has to bounce a ball on each number up to number 10. • How many times did the ball bounce up to number 10? 4 times. • Therefore 6 + □ = 10. Do more examples. • Introduce visually using the game of ten-pin-bowling. Verbalise the process (e.g., ten empty bottles, five knocked down, five left). Record the number sentence. Use a variety of other concrete materials to support the process. • When learning subtraction, some learners do well until they are asked to regroup or borrow. It seems that no matter how many times you say, 'Take the bottom number from the top number,' they will subtract the smaller number from the lager number. Colour code numbers, making the top number red and the bottom number green. Say, 'Take the green number from the red number.' By using colour to organise the thinking, the learner seems able to grasp the concept. 34 (red) -27 (green) • Commutative: Train game: Put 4 red shapes or blocks on number line (numbers 1 to 4). Put 5 blue shapes or blocks on the following numbers of the number line. Now put the two colours together on the right-hand-side of the number line. Teacher writes the calculation on the blackboard. 4 + 5 = 9. Repeat the calculation, but now the learner uses 5 red blocks and 4 blue blocks. Now put all the blocks together on the left-hand-side of the number line. he teacher writes the calculation on the blackboard. The learners are now allowed to compare the two rows of blocks. • Writing numbers helps the learner understand placing value in terms of how we write large numbers, but addition helps the child

BARRIERS EXPERIENCED BY LEARNERS	IMPLICATIONS	STRATEGIES
		understand 10 = 10 units, 5 = 5 units, 2 = 2 units and then 12 = 10 + 2. • Until the learner understands tens and units, he or she has no basis to cope with the decimal system for money or for weights and measures.
Patterns, functions and algebra	Learners may • not be able to follow or design simple patterns	• Start by copying simple sequences using colours or objects (e.g., red, blue, red, blue… or objects (e.g., crayon, block, crayon, block…). • Make the sequences more complex using 3 and later 4 colours, shapes etc. Learners should understand that a pattern is a repetition of a sequence or actions. • Sequence numbered unifix blocks horizontally or vertically. Give verbal and visual cues. • Let them repeatedly add the same number. For example, **1** (+2) = **3** (+2) = **5** (+2) = **7** (+2) = **9** (+2) = **11** (+2) = …
Shape and space (geometry)	Learners may • have difficulty with the following concepts of shape and space: naming shapes identifying shapes sorting according to shape over/under through by in/out on/off inside/outside behind/in front top/bottom near/next to forward/backward back/front across high/low middle side/corner/edge toward/away from around left/right • left/right:	• Identifying and describing shapes The learner feels the outside of the shape while naming the shape and its characteristics. • Multiple choice: Practice identifying the shape from a selection of two or more (e.g., 'Give me the circle'. Repeat these steps until mastered. • Practice and generalisation: • Sorting shapes of varying size, texture, colour and thickness o finding the shape in the environment o drawing the shape o tracing around the shape o making the drawn shape into a picture o select the shape – by touch alone – from a small selection 'feely bag'. • The following procedure is recommended for concept development: o Model of concept: o The concept is modelled to the learner using verbal cues (e.g. adult or peer shows the concept, moves *behind* the chair or places a plastic object *behind* the chair). o Experience the concept: o The learner repeatedly experiences the concept while hearing and using the language (e.g., playground equipment, classroom situations hiding *behind* the chair_. o Practice with 3-dimensional objects: o The learner uses 3-dimensional socio-dramatic play equipment to practice the skill (e.g., Duplo doll's house, Fisher Price garage, tea sets). o Practice with 2-dimensional objects: o The learner identifies or uses the concepts in books or worksheets. • The following activities provide practice at developing spatial skills in each step of the procedure:

BARRIERS EXPERIENCED BY LEARNERS	IMPLICATIONS	STRATEGIES
		o **barrier games:** A simple game based on giving and receiving instructions. Set it up by providing each learner with an identical set of materials. The instructor arranges his or her materials and instructs the listeners on how to reproduce this arrangement. The listener uses questions to clarify information that is incomplete or unclear. When the instructions are completed, the players compare their placement of materials. Prevent left-right confusions by seating the learners next to each other, facing the same way. Turn all the pieces face up before starting the game. o **listening skill games (using peers/audio tapes).** o **drama and dance using positional concepts.** o **use everyday routines to practice spatial concepts.** Peer or cross-age tutors can be utilised to give instructions in the above activities in order to practice these concepts. • Initially teach left/right in relation to the learner's own hands and feet. 'Hokey Pokey' is a good game for reinforcing these concepts. Use practical activities to reinforce the concept. Visual scanning left to right on the keyboard, number line and games all need to be specifically taught and practiced.
Measurement	Learners may experience difficulty with • **time**: night/day morning/afternoon, today **age,** before/after date on written work **birthday**: day and month 7 days in one week order of days of the week weekdays/weekend yesterday/today/tomorrow O'clock related to daily activities day/month/year am/pm Seasons, special days or events calendar • struggle to understand • **measuring:** length capacity/mass temperature	• constant use of a clock, pictures, real events and/or calendar is very important when introducing a new time concept: o discuss and describe vocabulary (e.g., morning is before lunch, afternoon is after lunch). o relate to learners events for that time using pictures/individual learner photos etc. (e.g., photo or picture of learner in bed at night, walking to school). o use individual timetables (displayed in visual form) showing the sequence of events o teach recording of date (e.g., 12 January 2004). o memorise date and month of birthday and know how to plot it on a calendar. o introduce concepts of weekdays and weekends (e.g., on weekdays we go to school, and on weekends we don't go to school). o the learner places flashcards with the word 'yesterday' and 'tomorrow' on blank calendar. • Introduce the learner to units of measurement The learner needs to be given the opportunity to measure many items using a ruler, string and other resources. Select a range of everyday containers to compare volumes. Generalise the skill to cooking. A similar process is used for mass. Compare learners' heights and

BARRIERS EXPERIENCED BY LEARNERS	IMPLICATIONS	STRATEGIES
		weights. • Weather: Relate to the maximum and minimum temperatures from the TV, radio or newspapers. Record in a graph.

3.2 Learning Area: Social Sciences

3.2.1 Learning outcomes and assessment standards

3.2.1.1 History: Learning outcomes 1 (historical enquiry), 2 (historical knowledge and understanding) and 3 (historical interpretation)

3.2.1.2 Geography: Learning outcomes 1 (geographical enquiry), 2 (geographical knowledge and understanding) and 3 (exploring issues) all need adaptation to accommodate all learners, irrespective of their barriers to learning.

3.2.3 Recommendations

- When an assessment standard requires learners to show their understanding of chronology and time, visual and tactile timelines could be used to further demonstrate understanding.
- If learners have to compare two versions of a historical event, he or she should be allowed

  to use visual, written or auditory sources.
- Ensure that learners have the vocabulary and that they understand the explanations, story

  and discussions.

3.2.4 Barriers and Strategies for Differentiation

BARRIERS EXPERIENCED BY LEARNERS	IMPLICATIONS	STRATEGIES
Historical & Geographical enquiry	• The learner may experience difficulty in reading the texts used in this learning area. • Slower readers will experience barriers to read the required volume. • The learner may struggle to find relevant information	• Give learners an overview of the information before beginning the lesson. • Relevant key information could be photocopied, with the volume handled by the learner through highlighting and/or underlining key words. • A reader could read the texts to the learner or texts could be listened to per audiotape. • Provide texts on a lower reading level. • Provide demonstrations and sample items. • Visual aids: DVDs, videos, films, role-plays, models, real-life examples and excursions could assist the learners to better understand

BARRIERS EXPERIENCED BY LEARNERS	IMPLICATIONS	STRATEGIES
	in the library, in a book and/or a page. • The learner may experience problems with extracting specific information from a text.	the text. • Step-by-step research strategies need to be taught. Allow the learner to repeat in his or her own words what he or she must do. A sequence map can be used to map the sequence that the learner needs to follow. This map may be cued with pictures. For example: Scan the text. Read the headings and subheadings and look at pictures, graphs, etc. Read the text. Highlight keywords. Answer the questions. Write a conclusion. • Encourage peer group work to complete an assignment. The participation of the learner in the group could be adapted to address his or her needs. • Reduce the amount of work on the worksheet and/or divide the worksheet into segments. The learner may complete part one, part two is group work and part three is homework.
Historical & geographical knowledge and understanding	• Abstract concepts may not be relevant to their life experiences. Abstract concepts may not be adequately comprehended. • A lack of exposure to the topic being discussed, a lack of understanding of the topic, and/or a lack of experience of the topic.	• Teach the specific meanings of all terms and talk through the concepts and ideas with them. Be aware of the different meanings a specific word may have (e.g., the word 'stage' can mean a period of time, a platform, a performance/robbery, etc.). Terminology research could be dealt with as follows: o Word: Continent o Word(s) with similar meaning: Land mass o Opposite meaning: Ocean o Part/Whole: A continent is part of the world o Larger category: The world o Smaller category: A country/island o Function: Divide land and sea o When does it occur: Always o Where does it occur: The world o Rhyming word: Government • Parents could help learners revise concepts and information. • The presentation of an assignment could be adapted in a variety of ways (e.g., cut and paste, pictorial representation, a display, a tape-recorded report, a model). • Complicated drawings and sketches could be done by the learner tracing or photocopying a drawing. • Provide a copy of notes in order to help the learner who struggles to copy from the blackboard. • Once a topic has been taught and learned, a game show format such as 'Who Wants To Be A Millionaire' could be used to practice and remember information.
Exploring issues	• The learner may struggle to make informed decisions about problems.	• Encourage participation in groups and class discussions. Don't assume that the learner has the same understanding of concepts as his or her peers. Guide the learner by giving him or her more than one possible answer to choose

BARRIERS EXPERIENCED BY LEARNERS	IMPLICATIONS	STRATEGIES
		from. • Use visual organisers such as timelines and flowcharts.
interpretation	• Due to the lack of life experience, the learner may experience difficulties understanding or interpreting abstract concepts. • The learner may not be able to automatically transfer knowledge and skills learnt in one setting to another.	• It will be necessary to talk learners through concepts and ideas. Ask relevant questions to guide them to interpret information. • Be prepared to teach the skill in all new settings.

3.3 Learning area: Economic and Management Sciences

3.3.1 Learning outcomes and assessment standards

Learning outcomes 1 (economic cycle), 2 (sustainable growth and development), 3 (managerial, consumer and financial knowledge and skills) and 4 (entrepreneurial knowledge and skills) all need adaptation to accommodate all learners, irrespective of their barriers to learning.

3.3.2 Recommendations

- Learners often have difficulty in understanding abstract concepts. This should become a very practical learning area right from grade R. Learners should use real-life examples of till slips, money, cheques, etc.
- Concepts such as profit and loss, tax, economic cycle, economic growth are abstract and difficult to master. It is of utmost importance that learners have enough time to construct meaning through the sharing of their understanding and through practical examples.

3.3.3 Strategies for differentiation

BARRIERS EXPERIENCED BY LEARNERS	IMPLICATIONS	STRATEGIES
Economic cycle: **Managerial, consumer and financial knowledge and**	• Abstract concepts may not be relevant to the learner's life experiences that will also be problematic with entrepreneurial	• Teach the specific meanings of all terms and talk them through the concepts and ideas. This should become a very practical learning area. Learners should use real examples of till slips, money, cheques, etc. Use the correct terminology at all times and ensure that the

BARRIERS EXPERIENCED BY LEARNERS	IMPLICATIONS	STRATEGIES
skills: **Sustainable growth and development:** **Entrepreneurial knowledge and skills**	skills. • Lack of exposure to, understanding of, and experience of, the abstract concepts on economic cycle. • Due to the lack of life experience, the learner may experience difficulties in the understanding and interpretation of abstract concepts. • The learner may not be able to automatically transfer knowledge and skills learnt in one setting to another.	learners have a clear concept of their meaning. • Refer to terminology research in social science. • Allow enough time to practice entrepreneurial skills in the classroom and school. • The presentation of an assignment could be demonstrated practically using real money, bank slips and business slips in the classroom by role-playing 'shop'/'bank'. • It will be necessary to talk learners through the concepts and ideas. Ask relevant questions to help them understand and interpret this information. • DVDs, videos, films, role-plays, models, real-life examples and excursions could assist the learners. • Be prepared to teach the skill in all new settings.

3.4 Learning Area: Natural Sciences

3.4.1 Learning outcomes and assessment standards

Learning outcomes 1 (scientific investigations), 2 (constructing science knowledge) and 3 (science, society and the environment) all need adaptation to accommodate all learners, irrespective of their barriers to learning.

3.4.2 Recommendations

- Learning and teaching support material should accommodate different communication needs.

- The use of real objects or representations of such objects would facilitate learning (e.g., having real flowers instead of pictures, or using a globe while explaining certain aspects of earth or space). Should the learners not have access to real objects or natural phenomena, this should be made available to them.

BARRIERS EXPERIENCED BY LEARNERS	IMPLICATIONS	STRATEGIES
Scientific investigations	• Safety: Due to limited motor control, lack of understanding and/or lack of memory for the correct procedure, the student may be at risk of injury. • The learner may have difficulty understanding some terms specific to the learning area (e.g., habitat, botanist, radical root). • The learner may experience difficulty in reading the texts used in this learning area. • Slower readers will experience barriers to read the required volume. • The learner may struggle to find relevant information in the library, a book and/or a page. • The learner will experience problems with extracting specific information from a text.	• Use peer support and adult support. • Use pictures to enhance safety procedures. • Allow the student more time to complete experiments. • Key information could be photocopied, with volume handled by the learner through highlighting and/or underlining key words. • A reader could read the texts to the learner or texts could be listened to per audiotape. • Provide texts on a lower reading level. • Visual aids: DVDs, videos, films, role-plays, models, real-life examples and excursions could assist the learner to better understand the text. • Step-by-step research strategies need to be taught. Allow the learner to repeat in his or her own words what he or she must do. A sequence map can be used to map the sequence that the learner needs to follow. This map may be cued with pictures. For example: Scan the text. Read the headings and subheadings and look at pictures, graphs etc. Read the text. Highlight keywords. Answer the questions. Write a conclusion. • Encourage peer group work to complete an assignment. The participation of the learner in the group could be adapted to address his or her needs. • Reduce the amount of work on the worksheet and/or divide the worksheet into segments. The learner may complete part one, part two is group work and part three is homework.
Constructing science knowledge	• Abstract concepts may not be relevant to their life experiences that will also be problematic with comprehension skills. • Lack of exposure to, understanding of, and experience of the topic discussed. • The learner may experience barriers with types of questions because they may struggle to understand what	• Teach the specific meanings of all terms and talk learners through the concepts and ideas. Be aware of the different meanings a specific word may have in different contexts (e.g., the word 'base' can mean a platform, the bottom of an object, etc.). • Refer to terminology research in social science. • Parents could help learners revise concepts and information. • The presentation of a assignment could be adapted in a variety of ways, (e.g., cut and paste, pictorial representation, a display, a tape- recorded report, a model). • Complicated drawings and sketches could be done by the learner tracing or photocopying a drawing. • Use simpler language and shorter questions. • Ask fewer questions. • Ask multiple-choice questions. • Reduce page turning. Try to put answers and questions on same page.

BARRIERS EXPERIENCED BY LEARNERS	IMPLICATIONS	STRATEGIES
	information is required. Learners may have problems with the 'how, why and when' questions. • The learner may experience problems with the planning of a task.	• Provide good guidelines in order to sequence the task in a structured way. Talk the learners through the assignment and make use of visual cues. Make sure the learner understands the steps of conducting an experiment (e.g., aim, method, observation and conclusion). A sequence map with picture cues can be used to map the sequence that the learner needs to follow.
Science, society and the environment	• Due to the lack of life experience, the learner may experience difficulties understanding or interpreting the integration between science, society and environment. • The learner may not be able to automatically transfer knowledge and skills learnt from one setting to another.	• It will be necessary to talk learners through concepts and ideas. Ask relevant questions to help understand and interpret this information. Use visual organisers such as timelines and flowcharts to help learners. • Be prepared to teach the skill in all new settings.

3.5 Learning Area: Technology

3.5.1 Learning outcomes and assessment standards

Learning outcomes 1 (technological processes and skills), 2 (technological knowledge and understanding) and 3 (technology, society and the environment) all need adaptation to accommodate all learners, irrespective of their barriers to learning.

3.5.2 Recommendations

- In learning outcome 1 (technological processes and skills), the assessment standards could be demonstrated using the strategy of peer groups, buddy system and/or pairs. One learner can describe while the other learner designs and/or makes an artefact, or manipulates the tools according to the description given by the other learner. (The one becomes the "hands" of the one giving the instruction.)

BARRIERS EXPERIENCED BY LEARNERS	IMPLICATIONS	STRATEGIES
Technological processes and	• The learner may experience	• The teacher may adapt the project in such a way that the learner works in a larger scale.

BARRIERS EXPERIENCED BY LEARNERS	IMPLICATIONS	STRATEGIES
skills	problems with fine motor skills: o Unlikely to have dexterity skills o Struggle to use both hands in a coordinated way o May not use the non-dominant hand to naturally stabilise their work. • Projects that include numerous steps that must be followed sequentially may cause barriers. • Learners may not understand the importance of following sequential steps in order to have a successful result. • The learner who lacks creativity may struggle with the project design. • Insufficient control of motor skills may occur (e.g., too much or uneven pressure while using electric tools). • Learners may be tactile- defensive. • In technology, the project results are visual. The learner may experience loss of self-esteem when he or she compares and evaluates his or her project to those of others. • Sensitivity to different sounds. • Safety: Due to limited motor control, lack of understanding and/or lack of	• Simplify the project by making it require fewer steps and allowing more time for completion. • The teacher may begin the project for the learner and then allow the learner to complete it. • Encourage the learner to use both hands. • Group tasks and peer support may help the learner with the constructing of the project. • Visual cues to guide the learner through the sequential steps, where an example of the completed project is shown, will be of great value. • Make use of the help of a peer to guide the learner through the steps. • Relate the project to real-life experiences (e.g., make an object from wire on which you can hang objects, or make a box from cardboard in which you can store birthday cards). • Allow the learner to work with less accuracy. • Make use of buddy assistance. • The learner may use gloves and/or brushes. • Peers may help the learner complete tasks that are uncomfortable for the learner experiencing barriers. • The emphasis must be on the process and not on the result. • Praise the learner on the positive aspects of his or her work. • Wear earmuffs. • Use peer support and/or adult support. • Use pictures to enhance safety procedures. • Allow the learner more time to complete experiments.

BARRIERS EXPERIENCED BY LEARNERS	IMPLICATIONS	STRATEGIES
	memory for the correct procedure, the learner may be at risk of injury.	
Technological knowledge and knderstanding	• Abstract concepts may not be relevant to the learner's life experiences that will also be problematic with comprehension skills. • Lack of exposure to, understanding of, and experience of the topic discussed. • The learner may experience problems with task planning. • The learner may have difficulty to read instructions related to computers.	• Teach the specific meaning of all terms and talk learners through the concepts and ideas. Be aware of the different meanings a specific word may have (e.g., the word 'stage' can mean a period of time, a platform, a performance, a robbery). • Parents could help learners revise concepts and information. • Provide good guidelines in order to sequence the project in a structured way. Talk the learners through the assignment and make use of visual cues. Make sure the learners understand the project planning steps. • Flashcards with pictures that clearly explain the computer commands could be used.
Technology, society and the environment	• Due to a lack of life experience, the learner may experience difficulties understanding and interpreting the relationships between science, technology and the environment. • The learner may not be able to automatically transfer knowledge and skills learnt from one setting to another.	• It will be necessary to talk learners through concepts and ideas. Ask relevant questions to help them understand and interpret this information. • Be prepared to teach the skill in all new settings.

3.6 Learning Area: Arts And Culture

The arts and culture learning programme

Learning outcomes and assessment standards

Learning outcomes 1 (creating, interpreting and presenting), 2 (reflecting), 3 (participating and collaborating) and 4 (expressing and communicating) all need adaptation to accommodate all learners, irrespective of their barriers to learning.

The arts and culture learning area is designed in such a way that all children can participate in arts and culture activities and achieve the learning outcomes. Inclusivity is an essential

part of arts and culture. Learners experiencing barriers to learning must always be accommodated.

Educators need to be aware of barriers to learning and ensure that their teaching methods reflect awareness of multiple intelligences and different ways of learning and knowing. Teachers need to interpret and adapt the activities and assessment strategies to address barriers to learning.

The arts and culture curriculum allows for this sort of flexibility. Learner diversity can be accommodated by using some general guidelines for adaptation and assessment.

Recommendations

- Scaffold tasks to allow for gradual learning of skills and/or techniques in developmental steps.
- Allow for a variety of modes of response on the part of the learners to cater for different learning paces where assessment standards require of learners to talk, share, tell and express.
- When assessing a learner's participation in a process, focus on the role that the learner must play in the process according to the specific barrier experienced by the learner. Do not expect all learners to display the same levels of participation in a process.
- Provide appropriate learning, teaching and support material in a variety of media to give learners access to materials for the creation of products.
- Provide instructions in a variety of media and in varying detail to cater for all barriers to learning. The instruction must match what you expect from the learner, taking into account that your expectations will differ, in order to accommodate the different barriers to learning in your classroom.
- The music assessment standards need to be adapted to allow all learners to participate in this art form.

The focus, therefore, is on the *experience of the process* rather than merely the creation of a product.

The teacher must be aware of the restriction posed by the learning barrier.

BARRIERS EXPERIENCED BY LEARNERS	**IMPLICATIONS**	**STRATEGIES**
Creating, interpreting and presenting Visual arts:	• The learner may experience problems with fine motor skills: o Unlikely to have	• The teacher may adapt the project in such a way that the learner can work in a larger scale. • Simplify the project by making it require fewer steps and allocate more time for completion. • The teacher may begin the project for the

BARRIERS EXPERIENCED BY LEARNERS	IMPLICATIONS	STRATEGIES
	dexterity skills o Struggle to use both hands in a coordinated way o May not use the non-dominant hand to naturally stabilise their work. • Lack of creativity. • Struggle to represent 3-dimensional objects.	learner and then allow the learner to complete it. • Encourage the learner to use both hands. • Group tasks and peer support may help the learner construct the project.
Drama:	• Sensitive to touch textures (e.g., glue, clay and paint). • Projects that include numerous steps that must be followed sequentially may cause barriers.	• Art activities need to be based on real-life experiences. • Be specific with instructions (e.g., design a pattern, use curved lines and only two colours). • The learner may trace the object. • Simplify the task. The learner doesn't have to paint a flower; he or she may paint an apple or ball. • The learner may wash or wipe his or her hands frequently. Provide him or her with gloves, brushes and glue sticks. • Visual cues to guide the learner through the sequential steps, where an example of the completed project is shown, will be of great value. • Make use of the help of a peer to guide the learner through the steps. • Choose groups carefully. Group peers need to be supportive. • Encourage participation. • Allow enough observation time, until the learner feels confident to participate. • Talk the learners through the activity. Ensure that every learner understands what is expected from him or her. • Use visual or verbal cues to prepare the learner for response at a given time. Peers may help with cues. • Lots of practice helps ensure automatic response. Give appropriate models. • Visual aids will help learners read dialogue.
Music:	• Lack of confidence to participate. • Reluctant to share own ideas with peers.	
Dance:	• Response time may be slower.	
	• Response time may be slower. • Experiences difficulty in remembering action sequences. • Experiences difficulty in independent finger movement, a problem when playing musical instruments. Experiences pincer grip problems and general fine motor control problems. • Response time may be slower.	• Choose a musical instrument that will be more suited to the learner's needs (e.g., drums or keyboards may be easier to learn than a guitar). • Remove unnecessary keys of colour coding the notes may be useful. • Provide visual and verbal cues. Divide the dance group into two groups. The first group dances first and the second group echoes the first group. This will prepare the learner to respond at the correct time. • Simplify the sequence of steps (e.g., leap twice with full pirouettes in between, and allow the learner to do the two leaps without the turns).

BARRIERS EXPERIENCED BY LEARNERS	IMPLICATIONS	STRATEGIES
	• The learner may experience problems with gross motor skills : • Balance. • Coordination. • May be struggling to remember steps of sequence.	• Practice each step individually before placing the steps in sequence. • Sequences should be built up slowly. Add only one new step at a time to a known sequence. • Separate leg and arm movements before the two movements are combined. • A learner could be placed in the middle of the group. In this position, he or she can model on another student. • Allocate enough rehearsal time. • Provide visual cues to indicate the sequence of steps.
Participating and collaborating: Expressing and communicating: Visual arts: Drama: Music:	• The learner may experience problems with listening, speaking, and reading skills. • Experiences problems to create visual images. • Experiences problems to perform in a group • The learner who experiences a barrier with voice in drama. • The use of dramatic devices may become a barrier. • The planning, making and use of a puppet in a puppet show with music and movement.	• See the section on languages. Adaptive strategies for listening, speaking and reading are dealt with comprehensively there. • Allow learners to respond in other ways, taking barriers to learning into account. • The use of gestures, body language, sign language, and mime actions must be encouraged. • Each learner must be accommodated in a drama group by allowing him or her to contribute to the product in a manner that accommodates their learning barrier. • Allow learners to work with assistants (i.e., peers) to record their product or allow learners to describe the what, how and why of the process. • Allow learners to work with a medium that suits their abilities. • Work with different materials that differ in texture so that learners can use their tactile senses to create a visual product. • Learners can contribute to the creative process by providing input into the words and actions of the actors, and can contribute to the product by assisting with the refinement thereof during the development process. • They can also be used to assess final products according to given criteria. • It is not only the actor who develops the product. Role-players such as playwrights and directors also contribute to the process and product. • An individual's strengths may lie in different roles in the process. • Allow for gestures, body language and facial expressions as forms of communication. • Learners that excel at visual art may choose to create the backdrops for a drama piece, while the learner that excels at drama will perform a role, while a learner that excels in music can contribute accordingly. Some learners may choose to write a drama. • Allow each learner to fulfil a role in the process and product that takes his or her learning

BARRIERS EXPERIENCED BY LEARNERS	IMPLICATIONS	STRATEGIES
Dance:	• Demonstration of rhythm and changes in tempo may cause barriers. • Demonstrate singing and movement. • Demonstrate a graphic representation of music notes. • Express different movement patterns to express feelings, ideas or moods. • Perform dance sequences.	barrier into account. • Help them understand and experience that people with differing abilities complement one another in the artistic process in developing a composite product. • Do not expect any one learner to be able to fulfil all roles. Emphasise that the focus is contribution to a process. • A *visual demonstration* and/or *representation* of these will need to be given via actions (e.g., clapping and beating a drum). • Allow miming actions to communicate message of song, story, etc. • Allow learners to describe and/or explain these to you or to someone else. • Allow learners to explore techniques of playing drums using tactile senses. • Gestures and the repetition of basic movements could be encouraged. • Each learner must be accommodated in a dance group by allowing them to contribute to the product in a manner that accommodates their learning barrier. • Learners who are unable to perform these sequences may contribute to the design process by providing verbal input into choreography. • A learner can contribute to the product by assisting with its refinement during the development process. • A learner can also be used to assess a final product according to given criteria. • A role-player such as a choreographer also has a role to play in the process and product. • Individual strengths may lie in different roles in the process. • Perform movements on the spot or in tandem with other peers who lead the learner on the pathway or by holding hands.

3.7 Learning Area: Life Orientation

Learning outcomes and assessment standards

Learning outcomes 1 (healthy promotion), 2 (social development), 3 (personal development) and 5 (Orientation to the World of Work), with their corresponding assessment standards, accommodate all learners, irrespective of their barriers to learning.

Learning outcome 4 (physical development and movement) provides unique challenges, for learners needing a high level of support in the classroom.

The assessment of life orientation activities will require the teacher to *observe* the learners to determine how they behave and handle situations.

Recommendations

The following recommendations are made with respect to these learning outcomes:

- Activities may need to be scaffolded to guide learners to achieve assessment standards.
- Some instructions and responses will need to occur in a one-on-one situation, whether between the learner and teacher or the learner and peer.
- The teacher cannot expect all learners to respond in exactly the same way. A variety of learner response modes must be allowed for, to cater for different barriers to learning and paces. For example, where a learner is expected to investigate an issue and is unable to write a response, this learner must be able to convey his or her findings via speech. The teacher must be flexible and allow the learner to communicate in the mode(s) most suited to his level of development and/or learning barrier. This is applicable to assessment standards where the learners are required to describe, explain, suggest, discuss, express, demonstrate , name, identify, draw up information, list, tell, reflect, debate, comment, propose, report, and/or respond.
- Assessment standards that require the learner to *demonstrate certain behaviour* can be assessed by observing how learners act and react in certain situations in the classroom. Such assessments should not be once-off, but should be made on an ongoing basis..
- Where certain behaviours are difficult for a learner to demonstrate, case studies or role-play could be used to determine how a learner would react or behave by getting him or her to respond in another mode.

Assessment standards that require the learner to draw and colour could be adapted to allow the learner to describe the product (e.g., a flag) to be drawn, and /or work with a peer as an assistant who follows verbal instructions to draw the product on behalf of the learner with the barrier. Alternatively, the pieces of the flag could be provided in the form of a jigsaw puzzle, for correct placement.

When working with assessment standards that require the identification of visual signs:

Example: Road signs

- The teacher needs to adapt classroom methodology to allow all learners to engage in the activity by providing some learners with actual visuals while explaining the shape and colours of the signs and their features to learners.
- In other words, the teacher must involve all learners in the same assessment standard, but the mode in which an instruction and information is given to the learners will differ according to barriers

to learning.

- This is applicable for assessment standards where learners are required to identify, distinguish, recognise, sequence pictures, interpret, consider, select, apply information, implement a method, evaluate, plan, analyse, examine, match and compare.
- Providing learning, teaching and assessment in a variety of media (e.g., print, visual, audio) afford all learners with access to information.

Objects provided must be age and developmentally appropriate for each learner, so a variety of one type of object may be necessary in the classroom. One learner may require a larger object than other learners, or a brighter colour.

- The learning context must be the same for all learners, with variances in activity to cater for diversity – this is important so that learners all feel they belong in a class.
- Learners should be grouped according to the focus of the activity. Group learners according to ability / barrier for the *learning of skills*. Group learners in mixed groups when applying skills. They can participate in any mixed group activity where the application of a particular skill is the activity's main focus.

Example: Hitting a target

1. Descriptors for each criterion for the activity must be differentiated to accommodate the specific barrier – where the sighted child may be required to throw a ball at a hoop, the blind child may be required to throw a ball in the direction of an auditory stimulus.
2. Learners need to display accuracy.
3. The target at which learners are aiming will differ.

- Scaffold the learning of a skill from basic parts to the complete skill.
- Where learners experience barriers to learning, practice skills as isolated units, not in a sequence, with isolated body parts, not whole body actions. Allow such learners to first imitate the technique, then add objects later.
- Engage in group or class activities and games where learners with barriers fulfil specific roles according to their abilities and barriers.

Example: A game of "Rounders"

1. A learner can catch a ball at the end of the field.
2. The learner could also record the team's goals.
3. The games can accommodate a variety of skills.

- Provide appropriate learning and teaching support material:
  - Objects (e.g. balls) in different sizes.

- Brightly coloured objects.
- Objects which emit sounds when they move.
- Tees for striking and kicking.
- The safety of the playing area is imperative, especially when partially sighted or blind learners are present.

- Make use of a buddy system:
  - Blind learners especially, require a partner to guide them around the playing area (use a wrist leash), or in a particular direction, or through providing verbal cues.
  - Cooperative work.
  - Peer teaching.
- Adapt the skills, rules and equipment or the use thereof to cater for all learners.
- Methodology:
  - Verbal instructions accompanied by visuals – pictures, demonstration, cue words.
  - Physical guidance of a learner through a skill where allowed to kinaesthetically experience the skill by another learner . The teacher can actually help guide body parts through a skill.

3.8 Learning Area: Languages

3.8.1 Learning outcomes and assessment standards

Learning outcomes 1 (listening), 2 (speaking), 3 (reading and viewing, 4 (writing), 5 (thinking and reasoning) and 6 (language structure and use) all need differentiation to accommodate all learners, irrespective of the nature of barriers to learning.

- It is important to obtain background information regarding language development. An interview with the learner's parents will reveal information about home language, at what ages other languages were introduced, who speaks which language to whom, exposure to television and radio, etc.
- Parent guidance is very important regarding stimulation. Home languages should not be discouraged but rather supplemented by additional interaction in the language of teaching and learning (TV, radio, reading, discussion, school work, etc.).
- For individual tasks, the teacher may have a number of activities that the learner enjoys and can manage on his or her own so that other learners are not distracted. A tape-recorder with earphones may be useful for a learner if reading lessons or learning texts are recorded by a parents or teacher. The learner can then listen and follow in his or her reader or study his or her mind maps A tape recorder can also be used with phonics and spelling skills.

3.8.2 Recommendation

Areas of difficulty	Implications for learning	Educational strategies
Listening Auditory perception (listening skills) is an integral part of the language learning process. To successfully interpret what learners hear, they should be able to: • Discriminate what is said. • Remember what is said (memory). • Form associations between concepts. • Divide the message into parts (sentences, words), combine or complete it (analysis, synthesis, closure).	Learners may: • Elicit only parts of what has been said. • Show frustration associated with the inability to communicate. • Experience difficulty in retrieving the appropriate words from memory. • Not have a language as sophisticated as that of his or her peers. • Have difficulty in understanding the general level of language.	• Place the learner near the front of the class to minimise distractions. • Background noise should be eliminated. Keep the learner's desk clear. • The positions of the teacher or another learner speaking and that of the learner experiencing a barrier are very important. • The position and source of light needs attention. • Visual distraction (pollution) (e.g., classes that are too full) should be eliminated. • Assistance may be given by a person or by using a technological device (e.g., hearing and FM system). • Listening can be supported with non-verbal cues such as gestures, sign, lip-reading, facial expressions (don't overdo or exaggerate) and pictures to assist with comprehension of vocabulary or concepts. Never assume that the learner understood what you said. Check by asking questions. • Ask the learner to repeat the instruction to you. • Rephrase questions and sentences rather than merely repeating. • Do not discourage translations by other learners. • Learners who use SASL as a medium of communication or first language receive visual messages rather than auditory messages. • When giving instructions, the following is key: speech tempo and clarity shorter sentences, less information per sentence (not too wordy), longer pauses between sentences. Gaining eye contact and lowering your body to the learner's eye level are also helpful. • Break verbal instructions down to two or more steps at a time. • Have one learner at a time speak, rather than overlapping speaking turns. • Encourage learners to ask questions in order to attain clarity and meaning. • In some cases, you may have to use extended sentences for learners. • Frequently used non-verbal signs could be placed on the classroom walls.

Speaking: Learners need to express themselves meaningfully.	Learners may: • Show frustration associated with the inability to communicate. • Experience difficulty in retrieving the appropriate words from memory. • Have language usage that is not as sophisticated as that of their peers. • Have difficulty understanding the general level of language. • Have difficulty describing pictures or experiences. • Have little variety in language usage. • Seem excessively shy and non-verbal • Point to things rather than ask for them. • Speak in isolated words or sentence fragments.	• Simple questions can be used to promote speech. • Provide the correct model of speech without highlighting the error. For example, if the learner asks, "I bathroom?" the teacher can reply, "Yes, you may go to the bathroom." • Expand the learner's language by providing more advanced vocabulary. For example, if the learner says, "I hate that book" the teacher can reply, "You think that book is boring, do you?" • Use the present tense to simplify you sentences. • Introduce new vocabulary at the beginning of a new theme. Pay special attention to abstract concepts (e.g., summarise, measure). Teaching categories also develops vocabulary. • Provide learners with opportunities to communicate and discourage peers from speaking for the learner. • Concrete resources will assist the learner in talking on a given topic and will provide visual cues to assist in the understanding and feedback to the learner. • Teachers and peers need to have an expectation of what the learner will contribute to conversations and group discussion. • Provide the learner with enough opportunity to communicate, and discourage peers from speaking for the learner. • Focus on what the learner is telling you, and just on the language he or she uses. • If the learner is not being understood, say , "Show me and tell me about it." The following may also help you understand the learner: "Repeat, slow down, tell me another way, show me, ask peers to translate…" • Encourage social interaction during break times.

Reading and viewing as a learning barrier	Learners may: • Display behaviours such as tilting the head back or bringing his head too close to a book. • Display coordination difficulties. • Have difficulty managing the routine of wearing glasses. • Be doing random visual scanning. • Find it difficult to keep up with the pace and place while reading and viewing. • Have difficulty in selecting relevant key information. • Have difficulties with articulation, rhythm, timing and intonation.	• Visual cues (e.g., pictures) should be explained descriptively. • A reader could read the text to the learner. • The learner could listen to a tape of the reading lesson. • The reading material must be placed on a flat surface. • Enlarge print. • Print on a contrasting background (e.g., yellow). • Ensure appropriate sitting and lighting (e.g., feet flat on ground, chair and knees at 90°, hips right to the back of the chair, shoulders and upper back in the correct position, proper eye-hand distance, hands in the correct position (straight, not hooked). Place a paper and pencil at the learner's midline (centre of his or her body). • Implement a coordination programme (e.g. cross-lateral march, ball play, sport). • Encourage a routine for wearing, cleaning, and storing glasses and other aids. • Movement of eyes (left to right, top to bottom) must be taught, generalised and maintained. • Provide the class with a pre-reading activity to introduce new vocabulary and place the story in context. • For example, focus the learners' attention on a reading page. This allows them to skim the pages, to visually focus on words, and to become familiar with material on the page before they read. • Discuss the picture: What is happening? What time of the day is it? What will happen next? How do they feel? How many people do you see? • Asking the children to swiftly find: o A specific word. o A question mark. o A period. o The first word on the page. o The last word on the page. o o Asking the children to quickly point to a word that: o Begins with the sound of ____. o Ends with the sound of ____. o Means _____. o Means the opposite of _____. o Is the name of a girl, boy, animal, etc. o Is a colour word. o Tells what time of day it is. o Tells how the _____ feel. • Highlight key words. • If the learner struggles with the volume of text (novels), use of DVDs, videos or audio tapes. • Talk the learner through a passage to help ensure comprehension. • Utilise group discussion or peer discussion of text. • Paired reading encourages fluency in reading. • The reading assignment can be shortened, e.g., Photocopy a small portion. Highlight the important words or sentences. Summarise the story's main points. Rewrite the story in shorter sentences and simpler language. • Differentiation of comprehension:

Writing	Learners may: • Experience difficulty with the mechanics of writing, which may reduce the writing speed and volume. • Have difficulty in organising the presentation of their work. • Lack creativity. • Experience difficulty in sequencing ideas in a logical order.	• Braille printers, computers, typewriters and other assistive devices should be made available. • When the learner needs to write, describe or compile, the learner should be allowed to make use of a scribe. • Reduce written work. • Use worksheets where learners could tick or cross. • The skill of writing needs to be divided into small steps. Teach each step systematically. Have the learner start with what he or she can do before starting more difficult activities. If the learner encounters problems, return to the lower levels of work. • Wide lined books, graph papers and A3 worksheets will assist learners with handwriting. • Generalising the learner's learning: The learner will sometimes need to practice the concept with different materials. For example, writing can be practiced in the sand, with finger paint, with crayons, pencil and pen. • Sequences may need to be supported with visual and descriptive representation of the steps required to complete the task. • Allow more time for the learner to complete his or her task. • Provide learners with formats or examples of the required layout. • Brainstorm words, develop sentences with words, order sentences, and then write out the final copy. • Peer and cross-age tutors are useful as scribes. • Allow the learner to copy notes from a peer or from a photocopy on the desk next to him or her. • Provide the learner with a copy of the notes to paste into his or her book. • Discussion should always precede any writing activity. Start by discussing experiences, thoughts, feelings and events. Follow the following procedure: Experience (do it). Auditory language (talk about it). Written language (write about it). • Proceed from the concrete to the abstract: **Concrete descriptive:** The learner writes a simple description of the things he or she can perceive, such as the names of objects, colours and shapes. The sentences can gradually become longer. **Concrete imaginative:** Use imagination When using a picture of a boy walking, let the learner write about where he or she thinks the boy is going. **Abstract descriptive:** Descriptions become more detailed. More particulars are added, and attention is paid to the sequence of events. Comic strips work well for this exercise. **Abstract imaginative:** Now the story consists of a plot, an imaginative setting, occasional figures of speech, and connotations of moral values. Discuss keywords, place names, names of persons and sequences.

Thinking and reasoning	Learners may: • Experience barriers that are often the result of delayed language and speech development. • Experience barriers with abstract concepts. • Have difficulty in solving problems. • Receive fewer opportunities to engage in language conversation due to poor language skills. • Experience greater difficulty in asking for help.	• Teach or demonstrate new skills using a variety of approaches or contexts. • Reinforce abstract concepts with a variety of concrete examples. For example, visual cues (pictures, concrete objects) give the learner memory 'hooks' to better grasp abstract concepts and stimulate the learner's thinking and reasoning skills. • Encourage and teach problem-solving skills. • Encourage learners to verbalise how they have solved the problem. • Provide time and opportunities for the repetition and reinforcement of new skills. • Teach new skills, but ensure that previously learnt skills have not been lost. • Develop strategies to assist the learner's language development. • Provide games that stimulate thinking and reasoning (e.g. chess). • Where possible, use visual cues to reinforce thinking and reasoning. • Divide the task into small steps or learning objectives. Let the learner start with what he or she can do before proceeding to more difficult activities.
Language structure: **Spelling**	Learners may: • Not hear the differences between language sounds and different vowels. • Confuse letters and their sounds. • Find it difficult to put sounds together in the right order to make up words while spelling. • Struggle to sound out words. • Be unsure of the sounds of the language and make many spelling mistakes. • Be slow to learn to spell new words.	**Teach spelling by doing sounds, blends, etc.** • Start by teaching consonant sounds before moving to vowels. • Use word families to teach phonics (e.g., mat, sat, hat, fat). • Teach learners a specific method to learn spelling words (e.g., Look, say, cover, write, check). • Keep a few simple multilingual dictionaries in class. Encourage the learners to look up words for themselves. • Encourage the learner to use all his or her senses to learn how to spell words. Use one sense at a time and to start with vision. For example: o What can you discover by just looking at the word? (For example, size, number of letters, configuration, small words, familiar sounds?) o Trace the word (with his or her fingers on the table). What does it feel like? o Read the word aloud and listen to it while you read it. o Close your eyes and visualise the object the word names. What does it look like? What does it feel like? o Hear the word inside your head. What does it sound like? Does the object the word refers to make any sound?

		Teaching syllables: Words can be divided into parts. Using body movements to emphasise the concept may help. Say a compound two-syllable word and ask the learners to say it with you. Tell the learners to imagine two body movements to go with the word. It is important that they find their own movements with ease. Explain that they have just divided the word into syllables. Write the word on the board, showing the divisions by colour-coding each part.
		Vertical writing: Vertical writing organises the letters of the word so that the learners can deal with them comfortably. Write the word on the black, letter by letter, from top to bottom. The learners say the sound of each letter and name the word. When you have repeated this several times, have the learners write the words vertically and horizontally on their papers.
		Flashlight tracking: Use the flashlight to write shapes, letters, or words on the ceiling or blackboard. Have the learner track the light with their eyes and the pointing finger of their writing hand while they repeat the number, word or letter. The learners will be forced to visualise the symbol you are drawing and will activate the haptic system with the arm movement. To reinforce spelling, write the word with the flashlight on the blackboard and have the children tell you the word. Use the flashlight to speed up the learners' reading. Write a story on the blackboard or chart and move the light along the line at the speed at which you want the learners to learn. This method can be used to pace reading, teach phrasing, or to reinforce left-to-right progression.
		• **Magazine tracking:** Once learners have learnt to focus on individual words while reading, it is often difficult for them to progress to reading across a line smoothly. Magazine tracking not only corrects word-by-word reading but also helps eliminate problems with directionality, reversals, omissions and fixations. Tear a page from a magazine (the larger the print, the better). Adverts are good to start with. Have the children loop each vowel in each word. Ensure that they do not lift their pencils except at the end of each line. Limit the activity to no more than ten minutes. This activity may be used to reinforce any concept. Try the following activities: • Loop the alphabet in order. • Loop punctuation marks. • Loop the b and the d. • Loop nouns, verbs or adjectives. • Loop word families. • Loop all the words you know. • Loop the letters in your name. • Loop the first letter of each word.

Grammar Grammar underpins the ability to understand a sentence and process it accurately.	Learners may have particular difficulties with: • Prepositions. • The use of past tense. • Agreement of the pronoun and verb (e.g., he plays, we play). • Active versus passive construction (e.g., The boy kicked the ball; the ball is kicked by the boy) • The use of personal pronouns (e.g., he, she, himself, his, hers).	• Teach grammar specifically through meaningful context and in practical situations. • Teach grammar visually by using pictures, concrete objects, Rebus symbols, Makaton signs or gestures, and the written word.

SECTION 4

TEACHING METHODOLOGIES AND INCLUSIVE EDUCATION

4.1 Introduction

Education White Paper 6 on inclusive education provides clear directions regarding the importance of curriculum flexibility in meeting the full range of learning needs. The policy states that: ***Central to the accommodation of diversity in our schools, colleges, and adult and early childhood learning centres and higher education institutions, is a flexible curriculum and assessment policy that is accessible to all learners, irrespective of the nature of their needs*** . In addressing the divers needs of the learners, the curriculum needs to be understood in its entirety. This includes:

- The content (i.e., what is taught).
- The language or medium of instruction.
- How the classroom is organised and managed.
- Teaching methods and processes.
- The pace of teaching and the time available to complete the curriculum.
- The learning materials and equipment that is used.
- How learning is assessed.

These aspects need to be considered in making the curriculum accessible to all learners.

This section will pay particular attention to the teaching methodology component. However, in the discussion of the teaching methodologies, other factors such as classroom management, the content of teaching and learning, the pace of teaching and learning, learning and teaching support material, will also come into play.

4.2 Framework for teaching methodologies

All teaching methodologies should be underpinned by the following principles:

- The learner is the focal point of all teaching, learning and assessment.
- All learners are equally valuable.
- Lessons encourage the (full or partial) participation of all learners.
- Learner differences are an important resource for teaching, learning and assessment.

- All teaching learning and assessment should be adapted to suit the needs of learners, and not the other way round.
- Appreciation of people who are from different backgrounds (cultures, languages, religions, etc.).
- Give learners the opportunity to record their work in different ways.
- High expectations for all learners.
- Clear expectations (clarity of focus).
- The interests of the learners are considered.
- Individual learner levels.
- How learners learn best.
- The pace at which learners learn.

The implications of these principles for the delivery of teaching methodologies are crucial to this section. Effective teaching methodologies will have these principles as their point of departure.

While there are several methodologies, one methodology – cooperative learning – has been selected to illustrate how the different needs of learners could be catered for in one lesson, and that is cooperative learning.

In applying teaching methodologies, teachers should bear in mind that there is no single classroom where all learners will be exactly the same, or learn in the same way and at the same pace. As a result, teachers are required to be creative in the use of a variety of teaching methodologies to reach learners who are at different levels. Multilevel teaching is of vital importance in addressing the different needs of the learners. Multi-level teaching is not a methodology as such, but a golden thread that should run through the implementation of all methodologies to reach learners at different levels.

4.3 Multilevel teaching

4.3.1 What is multilevel teaching?

Multilevel teaching is an approach that assumes the principles of individualisation, flexibility and inclusion for all learners, regardless of their personal skills levels. Teachers should unconditionally accept learners who experience barriers and involve all learners in all classroom activities.

In contrast to preparing different lessons for different learners, multilevel teaching advocates for one lesson with varying methods of learning, teaching and assessment. The lesson must include a variety of teacher techniques aimed at reaching learners at all levels. This means:

- Considering learners' learning style when planning presentation methods.
- Involving learners in the lesson through questioning aimed at different levels of thinking (Bloom's Taxonomy).
- Acknowledging that some learners will need adjusted expectations.
- Allowing learners to choose a method of their preference or competence in demonstrating knowledge, skills and values.
- Accepting that these different methods are of equal value.
- Assessing learners in terms of their differences.

4.3.2 The three-step process in developing a lesson to accommodate diversity

Please also refer to the heading, **Differentiated Lesson Planning**, in **Section 2**.

For teachers to develop lessons that accommodate the different levels of learners, the following steps are important:

Step 1: Identify what you want to teach (content) together with the underlying knowledge, skills and values.

Identify the assessment standard(s) you are working towards and the knowledge, skills and values that you want to convey. Then clearly communicate to learners what they are expected to achieve by the end of the lesson. The teacher can reflect on how relevant the content of the lesson is to the life experience and level of competence of individual learners. Remember that some learners coming from different backgrounds may react differently to a specific text. While some of them may not have mastered English as a first additional language fully, they may still understand the key concepts. Also, the text may not be of interest to them and this may affect their behaviour during the activity. Finally, certain learners have the skill of communicating without necessarily having mastered the language, for others some of the abstract content needs to be simplified or made more practical and functional.

Step 2: Determine the teacher's methods of presentation

The lesson cannot be presented in one way to all learners. The teacher's methods of presentation should consider the learners' learning styles, levels of thinking, and levels of participation. In order to reach all learners, material can be adapted and the method of presentation can be differentiated. Some examples of this is to ensure lesson material is available in large print or Braille, using reading texts with visual prompts, adding graphic organisers and guided writing,

simplifying pictures or diagrams or show differently, replacing picture or diagram by written description, supplementing picture or diagram by written explanation or replacing with a real item or model, reducing the amount of information, etc.

Bloom's Taxonomy

Bloom's taxonomy is one of the useful tools for reaching learners who are at various levels. All learners are involved in the lesson. The teacher asks questions suitable for the different levels, in order to allow maximum participation of all learners. The following table gives examples of how to apply the tool, in order to enhance participation.
This example – on recycling – could be applied to the lesson on the South African flag.

Areas	**Definition**	**Examples of questions**	**Key verbs**	**Classroom products**
Knowledge	Knowing and remembering facts	What does *recycling* mean?	Match, recognise, list, describe, name, define, show, record, select, identity.	Report, map, worksheet chart.
Comprehension	Understanding	Explain *recycling* in your own words.	Explain, locate, inquire, demonstrate, discover.	Diagram, model, game, picture, teach a lesson, time line.
Application	Doing, making use of what is known	How can you recycle?	Model, apply, code, collect, organise, construct, report, experiment, sketch, paint, draw, group.	Survey, diary, code, scrapbook, photographs, cartoons, model, illustration, sculpture, learning centre, construction.
Analysis	Explaining what is known	Give reasons why recycling is important in South Africa.	Categorise, take part, analyse, separate, dissect, compare, and contrast.	Graph, survey, report, time line, family tree, commercial, fact, file, questionnaires.
Synthesis	Putting together the known into something new	Design programmes to improving recycling at school and at home.	Add to, create, imagine, combine, suppose, predict, role-play, change, hypothesise, what if? design, invent, infer, improve, adapt, compose.	Story, poem, play, song, news article, invention, radio, show, dance, comic strip.
Evaluation	Judging the outcome	Evaluate the benefits of the school and home recycling programmes.	Justify, debate, solve, recommend, judge, criticise, prove, dispute.	Survey, panels, self-evaluation, conclusion, recommendation.

While the teacher does not need to use all the levels in all lessons, there should always be possibilities for several levels of cognitive skills. The next example combines some of the levels:

The teacher may choose to use the research method. Learners are given a list of questions to guide research projects. The levels of questions are varied from simple to complex. For example:

1. How many colours does the flag have?
2. Identify shapes on the flag.
3. Which colours are there?
4. Draw the flag.
5. Compare the SA flag with the American flag.
6. What are the differences?
7. What are the similarities?
8. Why is it important for every country to have a flag?

The different levels of questions will allow participation by all learners.

Learning styles: Make the flag available for the visual learners to see. Explaining the flag will be necessary for the learners with visual barriers. Allow the oral presentations to accommodate the auditory learners. This should be accompanied by sign language to accommodate learners with auditory barriers.

Step 3: Determine the assessment standards that will determine the learners' method of practice

The teacher should allow and encourage learners to demonstrate their attainment of knowledge, skills and values in terms of their own abilities.

Example

With learners with strong linguistic intelligence, do a literature review on flags. Let them explain to the other learners what they have learnt about flags in the literature. Learners with a strong logical mathematical intelligence will analyse flag patterns and their relationships. Learners with a strong musical or rhythmical intelligence may compose a song about the South African flag.

Use different strategies to assess the evidence of a learner's performance. Equal value should be attached to all assessment strategies. Evidence can be collected of oral, written, and/or art work; one is not more valuable than the other. (Please refer to the section on supportive and alternative assessment.)

4.4 Cooperative learning as a teaching strategy

4.4.1 What is cooperative learning?

Cooperative learning is a way of teaching in which learners work together to ensure that all members in the group has learnt the same content. In cooperative learning, groups are organised and tasks are structured for learners to work together to reach a goal, solve a problem, make a decision, or produce a product.

4.4.2 Grouping

Flexibility and variety in groupings should be encouraged. Although heterogeneous groups are recommended, there are times when it is appropriate to group learners in homogeneous groups.

GROUPING OF LEARNERS

Type of grouping	Possible uses	Points to consider
Whole class – large group	**Promotes belonging, reduces isolation** o Discussions and sharing information and experiences. o Introducing new topics, themes, units. o Developing new concepts, skills and understandings. o Developing and refining classroom expectations, rules and procedures.	Physical inclusion does not guarantee instructional inclusion!
Small group instruction	**Can be facilitated by the teacher, a learner or the group** o A group with the same ability or skill can help the teacher focus on developing a particular skill. Learners with a specific disability could also work around certain skills in a 'same disability' group (e.g., Braille, sign language, mobility, life-skills instruction). o A group with mixed abilities or skills is useful for project work, learning a new skill or practicing one recently learnt, discussing an assignment, problem-solving – different objectives and sub-tasks can be assigned to different learners; this promotes cooperation, peer support and the valuing of individual contributions.	A group with the same ability or skill should not become permanent, and they should not be composed of same learners all the time, in order to avoid labelling and isolation. They should only be used to learn a particular skill.
Paired groups	**Two learners work together. This offers opportunities to enhance social and communication skills and friendships; it can provide direct instruction and build self-esteem** o Can be formed on the basis of the same or mixed skill, ability or interest, etc. o Could pair a disabled and non-disabled learner. o Can be grade mates or cross-grade mates. o One learner is designated the 'tutor' based on his or her skill, ability or experience.	This way of working needs some practice so that 'tutors' will not just pass on 'correct answers'. Pairing needs to be grounded on learning for both, and the tutor should not always be non-disabled learner.
Interest group	**Paired or small group where learners share the same interest.** o Interest can be a topic, a learning area, a specific skill. o Encourage learners to learn more about their specific interest – at their own level	o Usually highly motivational. o Learning outcome should be shared with other learners to increase all learners' learning.
Cooperative expert groups	**All groups are given the same topic but each learner in the group is given one part of the topic to learn**	o It is important to ensure that each

Type of grouping	Possible uses	Points to consider
(jigsaw)	**(according to his or her level, interest, etc.)** o It is the responsibility of each member to learn his or her part, thus becoming an 'expert'. o After studying individual parts, the group comes together and each learner presents his or her part to complement the whole. o Another possibility: A topic and its sub-topics are identified. In each group, each member is assigned with a sub-topic. New groups get together according to sub-topics. These groups are now 'experts'. In the expert groups, learners study about the sub-topic. They then get back to their original group and share what they have learned in the 'expert' group.	member gets to his or her work done – support might be needed here. o Allows for individual and group activity. o Feedback – sharing in the groups is essential. This might require support.
Cluster groups	**A cluster group is a grouping of all learners within a class into small instructional groups, based on one or more learner characteristics.** o Usually learners stay in the cluster group for a longer period for a specific instructional reason (e.g., accelerated mathematics, community projects, second- or third-language tuition).	o Cluster groups should not be used for anything else than for an instructional purpose. o Groupings should not encourage negative labelling. o Learners can belong to several clusters in different learning areas.

4.5.2 Characteristics of effective cooperative learning activities

Characteristics	Explanation	How to achieve	Examples
Face-to-face interaction	Learners should interact directly with one another when carrying out collaborative activities. Interaction needs to take place among learners, not between learners and learning materials.	The seating arrangement should allow face-to-face interaction (e.g., a circle). Various modes of communication should be provided to facilitate proper interaction.	Auditory barriers: Learners who lip-read will benefit from the circle-seating arrangement. Visual barriers: Excessive or inadequate light should guide the sitting arrangement in the classroom. The modes may include and are not limited to: SASL, AAC, spoken, computers with voice recognition software, gestures and symbols.
Equal opportunity for success	All learners should have a chance to contribute to the success of the group.	For learners who experience barriers to learning, the teacher should adapt the criteria for success and expectations according to their	Learners who must perform specific tasks should be provided with the necessary support and resources. For example: For learners who experience communication barriers (specifically auditory), the telephone may not be an appropriate means of making appointments. Writing, faxing, posting

Characteristics	Explanation	How to achieve	Examples
		needs.	or hand-delivery could be viable options.
Individual accountability	All learners should be held individually responsible for learning the material and contributing to the group.	Learners are allocated various tasks, such as conducting interviews, consulting literature, visiting polluted sites, and visiting municipality offices to investigate costs of cleaning up.	The teacher looks at the ability of the tasks in task allocation. Learners experiencing visual barriers may need audio-tapes, Braille, computers with voice synthesisers when they are allocated the task of recording information when conducting interviews, in order to enhance participation.
Interpersonal skills	To ensure that members learn a range of interpersonal and social skills (e.g., communication skills, leadership skills, decision-making skills, building trust, time management and conflict management).	Learners should be encouraged to value other learners' contributions. Learners should be encouraged to listen to each other, and not to outsmart each other. Learners should be encouraged to take turns in discussions, and not to dominate.	When visiting dumping sites, learners who experience mobility barriers may be assisted by others (e.g., pushing wheel-chairs. Where shelves are too high, learners may help by bringing the books nearer. At the dumping site, learners with visual barriers may be offered sighted guidance.
Learner reflection	At the end of the activity, learners evaluate how well their group functioned and whether their goals were achieved.	Learners raise problems experienced and what they learnt from the exercise. Learners write about the challenges and how they overcame the obstacles.	Communication barrier: Learners entitled to SASL were not accommodated. Physical barrier: Appropriate transport was not provided. Visual barrier: At the dumping site, there was nobody to explain to learners. Social barriers: Lack of cooperation among learners.
Positive interdependence	The accomplishment of the group goal should depend on all group members working together and coordinating their actions.	Each learner should be encouraged to participate fully or partially in group activities.	Identify the strengths of learners within the group (logical-mathematical, linguistic, spatial, inter interpersonal, musical, bodily-kinesthetic and visual intelligences). For example: The information gathered from interviews or field work presented in Braille, tape-recorder and computer, where possible. They

Characteristics	Explanation	How to achieve	Examples
			may also conduct interviews. Learners with strong linguistic intelligence can write reports. Learners with a strong mathematical intelligence can interpret graphs and calculate truck loads and costs. Learners with strong musical intelligence can compose and/or record a song about recycling and pollution. A learner with little written language skills may be expected to do an oral presentation that is shorter than that of other learners.

SECTION 5

INCLUSIVE STRATEGIES FOR LEARNING, TEACHING AND ASSESSMENT

5.1 Introduction

Inclusive strategies for learning, teaching and assessment allow learners to demonstrate a level of competence and to achieve an outcome in a way which suits their individual needs. All assessment practices should be in line with the RNCS guidelines. Assessment should be adapted according to the level of support that each learner needs. The curriculum emphasises the principles of social justice, healthy environment, human rights and inclusivity (DOE, 2003: Teacher's Guide for the development of Learning Programmes, p 5). Thus, regarding assessment, (i) More time can be provided for assessment (DOE, 2003: Teacher's Guide for the development of Learning Programmes, p 11) and (ii) Methods of assessment are flexible (DOE, 2003: Teacher's Guide for the development of Learning Programmes, p 1). There are many practical ways in which teachers can adapt the way in which activities and assessment are planned, structured and conducted.

- Teachers should be aware that some learners might experience more than one learning barrier. In order to determine the nature and extent of support in terms of assessment, each learner will have to be individually assessed. Some learners may need to be monitored regularly and encouraged to complete activities.

- It is important to bear in mind that inclusive assessment strategies cannot be separated from learning and teaching, and that, taken together, these strategies form part of a continuous process. Inclusive assessment strategies cannot to be limited to formal assessment situations but are to be included in everyday learning and teaching.

- The following will be dealt with:
    - What are inclusive strategies for learning, teaching and assessment?
    - What are the necessary logistic arrangements for implementing these inclusive strategies?
    - How will learners be assessed to determine the nature and level of support they need?
    - What is the role of the teacher?
    - Which barriers need to be addressed through inclusive learning, teaching and assessment strategies?
    - How can inclusive learning, teaching and assessment strategies be applied in the six main learning outcomes?

- Formal assessment tasks: venues and specific interventions.
- Terminology for clarification.

5.2 What are inclusive strategies for learning, teaching and assessment?

- Inclusive strategies of learning, teaching and assessment allow learners to demonstrate a level of competence and to achieve an outcome in a way that suits their individual needs. All assessment strategies should be in line with the RNCS guidelines. Assessment, including CASS, should be adapted according to the level of support that each learner needs. Different types of barriers will have to be addressed through different inclusive methods of assessment. A specific barrier might require more than one adaptation. Strategies to be applied will vary according to whether the barrier is long-standing, recently acquired, fluctuating, intermittent or temporary.

- These general strategies apply to all learning outcomes:
  - Some learners may need to write in a separate venue so that a teacher or trained person can help them settle, and to structure the task and time allocation. This could be a temporary arrangement.
  - Long assessment tasks could be divided into smaller chunks, on separate blocks of paper. Provide clear deadlines and checkpoints to measure progress.
  - Some learners may need minimised visual distractions in the environment.
  - Some learners may need to work in short units of time with controlled breaks.
  - Demonstrate tasks or activities to learners and provide them with a checklist.
  - Emphasise detail or important information through colour-coding or isolation.
  - For some learners, drawings should be embossed or made in such a way that they can feel them in order to respond.
  - Provide visual auditory reminders indicating the amount of time left for activities.
- Inclusive learning, teaching and assessment strategies may be dictated by factors such as time, mode and necessity for substitution.
- Inclusive learning, teaching and assessment strategies will be indicated in terms of the six language learning outcomes identified in the RNCS. With the exception of language structure and use, all the outcomes can be applied to all learning areas.
  - Listening
  - Speaking
  - Reading and viewing
  - Writing
  - Thinking and reasoning
  - Language structure and use

- Mathematics learning outcomes.

5.3 Curriculum differentiation ladder

The following curriculum differentiation ladder is offered especially to facilitate differentiation for learners with varying intellectual and linguistic capacity.

	Ask	**Example**
	1. Can the learner do the same as his or her peers?	Spelling.
If not, can…	2. Can the learner do the same activity, but with adapted expectations?	Fewer words.
If not, can…	3. Can the learner do the same activity, but with adapted expectations and materials?	Matching the words to pictures.
If not, can…	4. Can the learner do a similar activity, but with adapted expectations?	In the learner's daily environment.
If not, can…	5. Can the learner do a similar activity, but with adapted materials?	Computer spelling program?
If not, can…	6. Can the learner do a different, parallel activity?	Learn a computer-typing programme, learn word processing with a spell-check, write or put pictures in a journal?
If not, can…	7. Can the learner do a practical and functional activity with assistance?	Play or work with a word puzzle, game, flashcards etc., assisted by a buddy or class aid?

This ladder suggests that the amount of work, the difficulty level of the work, the level of support needed, and the participation of the learner in the task must be adjusted in order to meet individual learner needs.

Participatory and collaborative learning gives learners experiencing barriers opportunities to learn to contribute to tasks and activities at a level appropriate to their level of development. Highly gifted learners will contribute differently, according to their strengths and interests. Joint planning, discussion and reflection will stretch some learners and add value to the learning of all participants.

A range of tasks and activities should be designed or simplified to meet the range of needs within a particular class. These can include worksheets, large print and constructions. Adaptations usually require little extra equipment but plenty of creative thinking on the part of the teacher.

The principle of high expectation for learners with barriers to learning should always be at the forefront of the teacher's mind, in order to assist learners in reaching their full potential. Challenges should be carefully graded so as not to discourage learners.

SECTION 6

LEARNING STYLES AND MULTIPLE INTELLIGENCES

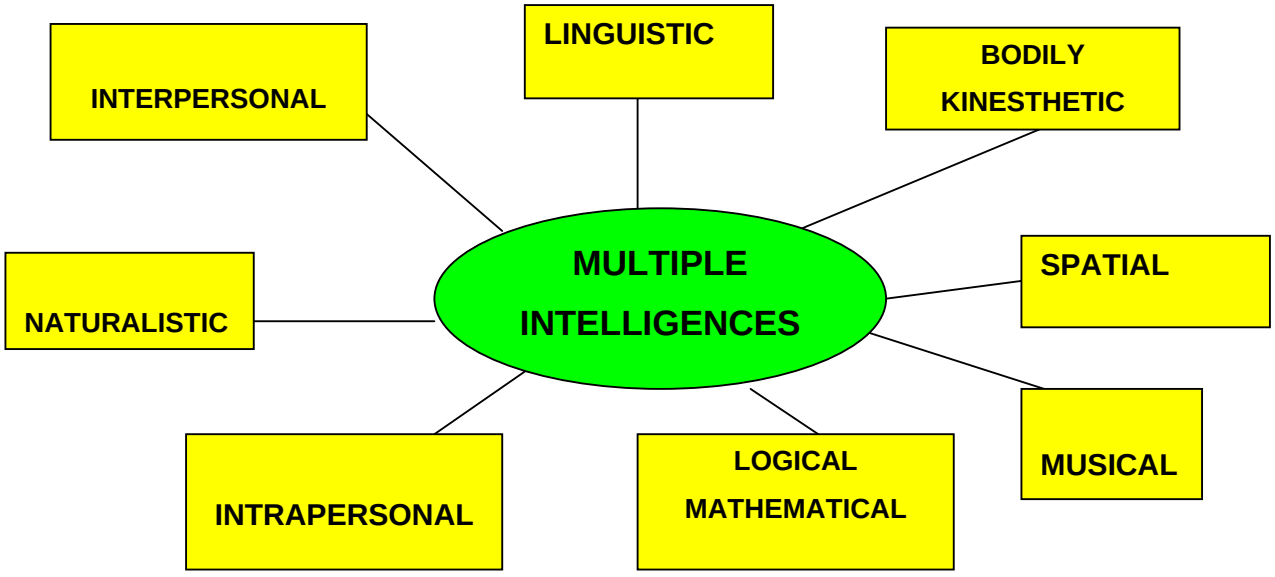
6.1 Introduction

The diversity of learners dictates the manner of implementing the curriculum. Recognition of the fact that learners possess different or multiple intelligences is crucial for an inclusive classroom. The learners' intelligence and accompanying learning styles are a starting point in determining the teaching methodologies and assessment procedures to be applied.

LEARNING STYLES

What are the multiple intelligences?

There are at least eight different types of intelligences[1]:



All learners seem to possess these intelligences to a greater or lesser degree.[2] Teachers must be aware of learners' different multiple intelligences and must be able to identify them. These different intelligences must guide the choice of appropriate teaching and learning strategies.

[1] Gardner

[2] Armstrong 2003

6.2 How do we recognise the way in which different intelligences process information, and how do we link this to different learning styles?

Intelligence	Recognise by	Learning style	Ways to reach all learners
Logical-mathematical intelligence	Strong at mathematics and problem-solving skills. Ability to discern logical or numerical patterns. Ability to pursue extended lines of logic and reasoning. Asks why and how questions, wants to reason things out, wants to know what's coming up next – sequential thinking.	The highly logical-mathematical learners will be interested in problem solving and hypothesis-testing strategies.	SOLVING MATHEMATICAL PROBLEMS: - Problems should relate to social and environmental situations. - Ensure that problems presented are varied in terms of complexity to address difference in abilities. - All barriers to learning should be addressed. - Tactile shapes could be used for some learners, word-problems for others, etc. Special attention should be paid to the language competence of highly mathematical learners. Ensure that learners are adequately involved in reading and writing activities as well as discussion. Provide opportunities for learners to read stories involving mathematical word-problems. Provide learners with the opportunities for solving word-problems. Examples: *Jane has three bags of oranges. In each bag there are six oranges. How many oranges does she have?* Some learners may have to see or feel the oranges, others will relate to the word, and others may want to draw an orange. It may be useful to re-word the problem in a different context for some learners, or make it more complex. For example: *My father has lost six of his cattle and now has six at his place and another six at his brother's place. How many cattle did my father have at the beginning?* COMPUTER TIME: - Where possible, all learners need to have the opportunity to spend independent time with computers. - Provide Braille keyboards and printers. - Ensure that voice synthesizer programmes are available. - The teacher moves around to assist learners with different needs. - Ensure that computer tables are of appropriate height for wheelchair –users. OTHER WAYS TO REACH: Objects to sort, classifying, writing applications, gadgets to take apart or fix, magnets, exploring, solving mysteries, word problems, **museum trips**, riddles, analysing information, outlining, grouping and calculation activities.
Spatial	Strong visual	Learners who are	- Provide learners with opportunities to

Intelligence	Recognise by	Learning style	Ways to reach all learners
intelligence	imagination and other spatial abilities. Likes to design, draw, read graphics and posters. Needs pictures to understand, likes puzzles, mazes, organising space, objects and areas. Has the ability to mentally manipulate forms, objects or people in space or transfer them to other locations or into other elements. Has the capacity to recognise forms, shapes and how they relate and interact with one another. Is sensitive to the balance and composition of shapes.	visually-spatially strong learn best from information that they see or read. They have strong visual imaginations and are inclined to be involved in spatial activities.	visualise and sketch as they read. - Integrate painting or any other visual art form with learning experiences. - Unfamiliar words may be explained by drawing pictures or by finding relevant images on the Internet or in SASL and Braille. - Allow the use of colored pencils and supply paper in a range of shapes and sizes. - Learners should be allowed to illustrate their writing by drawing. - Use pictures from magazines. - Introduce the drawing of cartoons with captions. - Use television shows or videos that allow one to see the action, hear the words, and read the subtitles.; use a SASL interpreter if there are learners with SASL needs in your class. - Allow learners to use colored background (on computers) and/or to highlight any component of the reading texts. OTHER ACTIVITIES Art, changing locations, stacking objects, putting pieces together, sport, large pieces of paper, trying things from a different angle, movement, mind-mapping, video, films, map-making, charts, theatre, windsurfing, sculpture, roller-blading, drawing and painting.
Interpersonal intelligence	Strong people skills. Ability to make distinctions, amongst others in their moods, feelings, biases, thoughts and values. Has the ability to act appropriately, using knowledge of others. Loves to talk and influence, usually a group leader, an organiser. Communicates well. Good at conflict resolution, listening, negotiating and persuading.	Highly interpersonal learners enjoy engaging in learning experiences in a social setting.	- Provide opportunities to read out loud, or sign and think out loud, or sign about the text learners are reading. Some readers may need SASL intervention in order to engage with written texts. - Allow group discussions (with a SASL interpreter for learners with SASL needs). Ensure that the discussion topic doesn't disadvantage learners on the basis of their socioeconomic background. - It is essential for some learners to talk out loud or finger-spell words as they write. - Encourage learners to create text directly from their spoken language or SASL. OTHER ACTIVITIES: Promote friendships, interactive games, teams, pair up with partner, one-on-one discussion, peer teaching, group work, collaboration and empathy.

Intelligence	Recognise by	Learning style	Ways to reach all learners
Bodily-kinesthetic intelligence	Has the ability to handle objects skilfully, either fine or gross motor movements. Has the ability to control own movements for function or expression. Desire to move! Constant movement or commitment to comfort. Wants to get up, move around, tap, touch, fiddle with things and do things.	Learners who are highly bodily-kinesthetic enjoy learning while moving about freely and touching. They also learn best from handling materials, writing and drawing.	- Allow learners to read standing up, lying down or in another posture that is comfortable for the learner. - Provide learners with opportunities to read and move at the same time. For example, an older learner can read while on an exercise bike. Learners should be allowed to use their hands and fingers while they read. Touching the words that they read increases kinesthetic connection to the material. - Whenever possible, learners should be allowed to write in the books (not workbooks) they are reading from. This improves the kinesthetic involvement with a book. - The use of pens and pencils, as well as textured paper, provide tactile stimulation. - Physical exercise designed for relaxation may precede or follow reading and/or writing exercises. OTHER ACTIVITIES: Stretching, role-play, Simon Says games, new games, building models, demonstrations, changing seating, drama, exercise, body sculpture, crafts and hobbies, dancing, games and sport events. Ensure that the chosen activities do not exclude some learners; use parallel activities for this purpose.
Verbal-linguistic intelligence	Ability to use the core operations of language. Is sensitive to the meaning, sound, inflection and order of words. Loves language, reads and loves to talk. Constant talking, a good memory for dates and names. Likes to tell and listen to stories. Likes a variety of voices and remembers jokes.	Learners with strong oral or SASL language abilities like to read and think out loud or sign.	Provide opportunities for presentations, speeches, role-play, dialogue, interactive games, writing, group work, doing reports, discussion, listening to tapes and reading, especially books with dialogue. Ensure that topics and activities do not exclude some learners on the basis of barriers identified in White Paper 6.
Intrapersonal emotional) intelligence	Has a good understanding of own strengths and weaknesses.	Learners who are highly emotionally sensitive enjoy	- Encourage learners to correspond with pen-pals to improve personal relationships. Teacher should be available to learners who request assistance.

Intelligence	Recognise by	Learning style	Ways to reach all learners
	Is able to exercise self-control. Is good at goal-setting and is comfortable with being alone. Makes choices in favour of long-term benefit. Has the ability to develop successful working models. Can learn and develop new behaviours based on self-knowledge.	solitude, like thinking and are happy to work alone.	- Promote writing contexts and other events where the learners' writing will be read in a public setting. - Learners should be given the freedom to choose their books or texts. Where possible, they should own these books so that they can write in them whenever they want, talk back to them or, in some cases, throw them on the floor if they disagree with what is written. - Learners should be provided with opportunities for unstructured writing in their diaries or anywhere they can record their dreams, poems and reflections of their inner lives. Such entries should not be evaluated or even read by the teacher. - The teacher should help learners discover what it takes to get them in the mood of work, reading or writing. - Learners experiencing emotional barriers (e.g., those whose self-worth is threatened by continual failure) should be assisted to regain their self-worth. - Provide opportunities for learners to taste success, master new skills and experience a feeling of competence. - Keep failure to a minimum. Learners should be given credit for doing a task in the correct manner, even if the answer is incorrect. Use art, dance, and music to promote learners' emotional involvement. OTHER ACTIVITIES: Activities promoting thinking and imagination, journal writing, relaxation, learning about oneself, focusing and concentration exercises, self-assessment, reflection and time to be alone and process.

SECTION 7

COMMON DISABILITIES, LEARNING DIFFICULTIES AND CHRONIC MEDICAL CONDITIONS IN CHILDREN

7.1 Introduction

The policy on inclusion of learners has made a difference in communities. Parents have chosen to approach community schools for admission of learners with learning difficulties, chronic medical conditions and disabilities. This section addresses the needs of teachers in full-service schools and mainstream schools in all provinces. The information presented here on various medical conditions, disabilities and other barriers is in no way exhaustive. This information should be seen in the context of the strategy for early identification of barriers to learning ; it is meant to assist institution-based or site-based support teams in providing support to learners, educators and parents. The overall aim is to increase the knowledge base of educators as well as to demystify disability, medical conditions, chronic illnesses, disorders and syndromes.

In each case, a brief definition is provided, as well as the impact on the learner's learning ability and possible educational strategies. Because disabilities are heterogeneous within a group, these definitions describe a syndrome or condition, rather than a specific child. The information is not provided for the purposes of diagnosis, which remains the responsibility of professionals.

The sole purpose of this information is to broaden knowledge and facilitate understanding.

7.1.1 Intellectual disabilities

These may be termed as mild, moderate, severe and profound, depending on the level of impairment. Below-average intellectual functioning, which coexists with deficits in adaptive behaviour (adjustment to everyday life) during the developmental period, adversely affects a child's educational performance. Intellectual disability is not disease or illness. http://www.safmh.org.za/

Characteristics	Implication for learning	Educational strategies
- Delayed speech and language development. - Delayed concrete thinking. - Delayed motor skills. Social barriers, including low expectations and social exclusion.	- Different academic, social, and vocational skills, depending on the impairment level. - Difficulties with the following areas: Learning Communication Social skills Academic issues	- Set realistic and functional goals with family support and coordination. - Use concrete, age-appropriate materials, avoiding totally abstract levels of presentation. - Divide learning tasks into smaller sequential steps with frequent review, going from simple to

Low literacy levels. Low numeracy skills.	Vocational concerns Learning occurs, but at a slower rate Short-term memory impairment Unable to form generalisations. It may take longer for a learner to achieve assessment standards for a learning programme.	complex, and concentrating upon strengths. - Use consistent, age-appropriate rewards. - Help learners generalise and apply learning from one situation to the next through teacher modeling. - Alternate means of assessment (more verbal and less written). - The learner needs to be permitted to take longer than other children in the class. This can be achieved through promotion with his or her age group and grade straddling.

7.1.2 Autism Spectrum Disorders (ASD) – Autism

A pervasive developmental disorder, Autism could be summed up as the inability to make sense of the world. A neurological disorder, usually diagnosed at the age of 2 to 3, Autism has an estimated prevalence of 1:100, and affects four times as many boys as girls. Autism is characterised by what is commonly referred to as a **triad of impairments:**

- **Social interaction** – difficulties in understanding and interpreting social situations, displaying inappropriate and odd behaviours, and a seeming unwillingness to make friends.
- **Communication** – difficulties in using and making sense of both verbal and non-verbal information. Some people with autism use language but interpret it too literally, while others never develop speech. Talk tends to involve repetition of learned phrases and is often inappropriate for the situation.
- **Thought and imagination** – difficulties in thinking flexibly and changing mental sets for a new task. Responses are repetitive and obsessive, with fixation on certain objects.

For more information visit: http://www.autismsouthafrica.org/

7.1.2.1 Strategies for differentiation

Characteristics	Implications	Strategies
Lacking in social relatedness	• May seem isolated, solitary and withdrawn. • Seems to be unaware of social conventions. • Difficulty in interpreting social cues, body language, gestures and contexts. Does not use these to regulate social interaction. • Inappropriate, odd interaction attempts. • Inappropriate responses to social situations.	• Join in with the learner's focus of attention. Comment on and become involved with the activities the learner engages with, to cultivate social connectedness. • Make explicit the rules of social situations. Use visuals whenever possible. • Structure social situations (e.g., interactive board games) rather than expecting the learner to spontaneously take part in interactive play.

	• Difficulty in sharing (e.g., toys, enjoyment). • Difficulty in directing another person's attention by pointing or looking at objects (joint attention). • Difficulty in taking another person's perspective. • May lack empathy. • Sometimes does not realise that what is being said or signed, needs to be directed to someone. • May avoid eye contact. • Difficulty making friends.	• Role-play social interactive situations. Reverse roles. • Develop scripts for common social conventions. • Teach the interpretation of social cues directly. Use picture strips and sequences. • Teach a learner with ASD to look at, mention another person's name, get the other person's attention by a gentle touch (should the context allow it), before attempting to share information. Teach having to wait for a response. • Use social stories to teach perspective-taking. • Insistence on learning in collaborative groups may be counter-productive. • Teach signs and rules of friendship behaviour. Use comic strips and speech bubbles. • Teach other learners that a learner with ASD does not intend to be hurtful or rude. Teach tolerance of someone who is often a very unsatisfactory social partner.
Difficulty with communication and language	• May appear to be deaf as there could be minimal response to verbal input (even when calling the learner's name). • May show very limited communicative intent. • Some learners with ASD do not speak. • Seems to have a limited need to compensate for lack of speech with non-verbal communication. • When adequate speech is present, often has difficulty with the social use of language. May seem to be blunt or rude in language use. • Understands language literally. Finds it difficult to grasp abstract language use (e.g., metaphors, idioms or sarcasm) and thus often misses the point. • Difficulty in sustaining a topic and holding a reciprocal conversation over extended exchanges. • May repeat words, questions or phrases over and over. • May echo what another person has said rather than responding to the content (echolalia). • May speak clearly and properly but often lacks intonation patterns in speech (monotone quality to speech).	• Use alternative and augmentative, visually-based communication systems. • Use short, clear sentences. • Allow enough time to process verbal input. • Use signing like Makaton to support verbal communication to learners with ASD. • Use objects, photographs, pictures, drawings, line drawings and text (select what is appropriate to the representational level of the learner) to support communication. • Stimulate communicative intent by manipulating the environment sensitively so that the learner experiences the need to involve a communicative partner. Put a favourite toy or food out of the learner's reach, for example. • Teach turn-taking. Use a visual cue card to indicate 'wait' to the learner. • Teach topic maintenance using visuals. For example: Two competent speakers get an equal number of blocks. One might get red blocks, the other green. A conversational topic is chosen. Only a comment related to the topic warrants the placement of a block on the table. As the communicative

	• May hear intonation patterns in speech but finds it difficult to use these to add meaning to what is being said.	partners take turns to exchange relevant comments, there is a visual demonstration of reciprocal communication on the table. • Limit the use of abstract language with learners with ASD who get confused with language nuances. • Use topics of interest to the learner to produce personalised readers for language development and fostering comprehension. • Use a camera and/or video recorder to accumulate visuals of experiences and events to employ in curriculum delivery. • The mantra for learners with ASD should be: Look rather than listen.
Inflexible thinking manifested in restricted patterns of interest and behaviour	• May not play with toys appropriately (e.g., will spin the wheels of toy cars or will line them up). • Difficulty engaging in varied and spontaneous pretend play. Play behaviour often has a repetitive quality (e.g., will pour water from one container to the next for long periods if there is no intervention). • Might cling to a specific object or toy with intensity and will show strong reaction of distress when it is removed. Narrow interests and not easily interested in alternative objects or activities. • Might insist on sameness (e.g. wants to follow the same routines and often non-functional rituals). Has a compulsive quality. Disturbance in routines may lead to stress, and sometimes challenging behaviour. • Finds it very difficult to cope with transitions. • Learners with adequate language will often talk about their particular interests incessantly and repetitively without seeming to take listeners into account. Will resist change. • Might show a strong reaction, should anyone break the rules. • Rigidity in thinking complicates transfer of what was learnt in one situation to another. Reliance on same cues being present to remember and trigger a response.	• Develop play kits that include objects representing the real thing (e.g., small cars and animals that might reflect the learner's particular interests). Present a simple storyline and use objects to visually demonstrate the story. Repeat the story in the same order over a period of time. Encourage the learner to become involved and to eventually tell parts of or the whole story using the visuals as cues. Foster exchanges and turn-taking between teacher and learner in telling the story to develop the ability to involve a partner in play. Involve peers. • Use visual schedules to explain the order of the daily programme. This is essential to make the environment more predictable for the learner with ASD and to reduce anxiety. Use favourite objects or activities as rewards in the schedule. In this way, the learner will be more willing to take part in other learning activities, as it is visually clear to the learner that there will be times to engage in preferred activities and even non-functional routines. • Introduce an element of surprise by unexpectedly using a 'surprise card' on the schedule. However artificial, this type of strategy helps create some flexibility in thinking. The use of a card as visual support can have a surprisingly dramatic effect. • Use transition cards to support learners when they have to move from one area to another in the school. A transition card is a picture representing the area the learner has to move to. It can have an

		equally dramatic effect as a 'wait' or 'surprise' card as it aids understanding of what is expected and can be used as a visual reminder. • Give consideration to limiting the time spent on all absorbing narrow interests. Use a choice board, visually demonstrating other possible activities for the learner to choose from. Attempt to use restricted interests functionally. Should the learner be especially interested in and motivated by lawnmowers, for example, use this interest to deliver the curriculum.
Sensory difficulties	• May cover ears or put fingers in ears. • May be distressed by particular sounds. • May put fingers in eyes. • May be sensitive to light. • May continuously seek reflection in mirror or other object. • May continuously switch lights on and off. • May continuously rock or spin own body or wriggle fingers. • May smell other people compulsively. • May touch certain objects or textures compulsively. • Can sometimes not bear walking without shoes. Some learners can't tolerate shoes or labels of clothes against their skins. • May be fussy eaters and have a very limited diet because of oral sensitivity to food texture. • May have a high pain threshold. • May find it difficult to negotiate way around objects, and may bump into everything. • May experience a sense of disorientation in space and lose sense of direction easily, or have a very astute sense of direction.	

7.1.2.2 Asperger's syndrome

While Asperger's syndrome is regarded by some as a distinctive condition, others place it at the higher-ability end of the autism disorder spectrum. Although the disorder is characterised by the same triad of impairments as autism, these are less profound. Such children find it hard to interact successfully with others and make friends. Although they can speak fluently, they tend to be poor

listeners, appearing insensitive to others. Asperger's syndrome children demonstrate the same literal understanding as autistic children. While often excelling at learning facts and figures, people with AS have major social problems, which often result in exclusion. What follows is a brief summary of strategies for social behaviour for learners with Asperger's Syndrome:

Learner with Asperger's syndrome need to learn how to:

- Start, maintain and end social play.
- Be flexible, cooperative and share.
- Maintain solitude without offending others.
- Encourage a friend to play with the child at home.
- Enrol the learner in clubs and societies.
- Teach the learner to observe other learners to find out what to do.
- Encourage cooperative and competitive games.
- Model how to relate to the learner.
- Explain alternative means of seeking assistance.
- Encourage prospective friendships.
- Use social stories to understand the cues and actions for specific social situations.

Run social skills groups for adolescents with Asperger's syndrome to:

- Rehearse more appropriate options.
- Demonstrate inappropriate social behaviour.
- Use poetry and autobiographies to encourage self-disclosure and empathy.

Provide guidance and practice in body language (Tony Attwood: Asperger's Syndrome, 2006).

7.1.3 Traumatic brain injury (TBI)

Traumatic brain injury refers to acquired injury to the brain caused by an external force. It does not include congenital or degenerative brain injuries. Frequent causes of TBI include motor vehicle accidents, falls, sport accidents, physical abuse or assault.

Types of injuries vary and can range from mild to severe. Sudden, unexpected onset makes TBI differ from other disabilities because parents and children have not had time to emotionally deal with the disability and must suddenly learn how to manage and accept changes.

Possible characteristics		**Educational strategies**
Physical	Speech, vision, hearing, sensory impairments, headaches, difficulty with fine and/or gross motor balance, coordination may be affected.	Careful planning for school re-entry is essential. Keep the environment as distraction-free as possible. Provide the learner with rest breaks if stamina is lower.
Cognitive	Short-term and long-term memory	Teach compensatory memory

	deficits, concentration problems, slowness of thinking and/or judgment, perceptual disorganization with academic difficulties such as learning new information.	strategies. Repeated practice. Explain figurative language. Provide concrete examples to illustrate new concepts.
Psychosocial, behavioural or emotional	Fatigue, mood swings, denial, self-centeredness, depression, inability to self-monitor, agitation, excessive laughing or crying, difficulty relating to others and poor impulse control.	Family support and sharing of educational strategies for reinforcement at home.

www.biausa.org

7.1.4 Auditory loss

7.1.4.1 Deafness

AUDITORY BARRIER – DEAFNESS		
Characteristics	**Implications**	**Strategies**
A LEARNER CANNOT HEAR	Learners may: • Elicit only parts of what has been said. • Show frustration associated with the inability to communicate. • Experience difficulty in retrieving the appropriate words from memory. • Have difficulty in understanding the general level of language.	• Place the learner near the front of the class to minimise distractions. • Stand where the student can lip-read. • Face the student when talking. • Background noise should be eliminated. Keep the learner's desk clear. • The positions of the teacher, or another learner who is speaking, and the learner experiencing a barrier, are very important. • The position and source of light need attention. • Visual distraction (pollution) (e.g., classes that are too full) should be minimised. • Assistance can be given by a person or by using a technological device (e.g. hearing aid and FM system). • Listening can be supported with non-verbal cues. For example, gestures, signing, lip-reading, facial expressions (don't overdo it) and pictures to assist with comprehension of vocabulary and concepts. Never assume that the learner has understood what you said; check by asking questions. • Ask the learner to repeat the instruction back to you. • Rephrase questions and sentences rather than merely repeating. • Do not discourage translations by other learners. • Learners who use SASL as a first language receive visual messages , and not auditory messages. • When giving instructions, the tempo and clarity of speech is important. Use shorter sentences, less information per sentence (not too wordy), and increase the length of pauses between sentences. Gaining eye contact and lowering the body to the learner's eye level will also help. • Verbal instructions may be broken down in two or

AUDITORY BARRIER – DEAFNESS		
Characteristics	**Implications**	**Strategies**
		more steps at a time. • Show the learner what you want him or her to do, rather than simply telling. • One learner speaks at a time; no overlapping of speaking turns. • Encourage learners to ask questions for clarity and meaning. • In some cases, you may have to use extended sentences for learners. Frequently used non-verbal signs could be placed on the classroom walls. • When you sign, do not sign with a book or cup in your hands. • Communicate through your facial expression, gestures and body language. • Do not chew or eat while communicating. • When notes need to be taken during the lesson, appoint note-takers, as the deaf learner cannot watch the teacher and the interpreter at the same time. • Provide a copy of your notes, if possible. • Highlight key words or concepts in printed material. • Provide a list of key concepts or vocabulary for new material. • Use concise statements or simplified vocabulary. • For learners who need SASL, use an SASL interpreter. Present information with subtitles or in SASL format. If necessary, learners can rewind the video to clarify. Subtitles also improve learners' reading skills. • SASL interpreter will provide voice-over for learners who use SASL. • The voice-over will then be recorded on an audio tape for assessment purposes if the task requires this. • Please take note that a SASL interpreter cannot interpret and act as a scribe as the same time. • When a learner who uses SASL presents a written task, it is essential that the assessor understand the structure of SASL in order to verify and to assess the task fairly. • In order to enable learners to improve their writing skills, the teacher should be able to explain the difference in structure between SASL and the LOLT of the learning site. • Learners seated in a horse shoe or half circle are able to observe the teacher as well as each other while communicating. • Use peer tutoring. • Use games for drill and practice. • Use DVDs with subtitles or interpret in SASL. • Use boards, pictures, posters with words and/or pictures, overhead projectors, and signs. • Repeat information verbally or in writing. • Use interest inventories to identify positive reinforcements for each individual.

AUDITORY BARRIER – DEAFNESS		
Characteristics	**Implications**	**Strategies**
		• Provide regular feedback and check progress often.
A LEARNER HAS DIFFICULTY WITH RESPONSE	Learners may: • Show frustration associated with the inability to communicate. • Experience difficulty in retrieving the appropriate words from memory. • Have language usage that is not as sophisticated as that of their peers. • Have difficulty in understanding the general level of language. • Have difficulty describing pictures or experiences. • Have little variety in language usage. • Seem excessively shy and non-verbal. • Point to things rather than ask for them. • Speak in isolated words or sentence fragments.	• Use of alternative or augmentative communication modes (e.g., signing, miming, gestures, facial expressions, writing, pictures, graphics and any technological devices).. • Recommend appropriate speech services by a trained professional or speech therapist. • The learner may need time to organise his or her thoughts prior to giving a response. Allow sufficient time for the learner to respond. Wait for the learner to recall the words from memory. Don't try to hurry him or her along. If there is no response, wait before modelling the response. • Formulate simple questions. • Provide the correct model of speech without highlighting the error. For example: If the learner asks, "I bathroom?" the teacher can respond, "Yes, you may go to the bathroom." • Expand the learner's language by providing more advanced vocabulary. If the learner says, "I hate that book" the teacher can say, "You think that book is boring, do you?" • Use the present tense to simplify your sentences. • Introduce new vocabulary at the beginning of a new theme. Pay special attention to abstract concepts (e.g., summarize, measure). Teaching categories also develops vocabulary. • Provide the learner with enough opportunities to communicate, and discourage peers from speaking on behalf of the learner. • Concrete resources will assist the learner in speaking about a given topic and will provide visual aids to assist in understanding and feedback. Teachers and peers need to have an expectation of what the learner will contribute to conversations and group discussions. The group should be small, with members facing each other. • Focus on what the learner is telling you, rather than just on the language being used. • If the learner is not understood, say, "Show me and tell me about it." The following may help to interpret the learner: Repeat. Slow down. Tell me another way You can ask peers to translate. • Allow more time to complete assignments and tests. • Allow learners to make models, role-play, develop skills, and create art projects to demonstrate their understanding of the information. • Allow written or drawn responses to serve as an alternative to oral presentations. • Allow learners to use a computer or word-processor. • Encourage social interaction during break times.

AUDITORY BARRIER – DEAFNESS		
Characteristics	**Implications**	**Strategies**
A LEARNER HAS A DIFFICULTY WITH SOCIALISING	Learners may: • Withdraw from the group. • Isolate themselves.	• Teach hearing learners to sign. • Make books available about hearing loss and deafness. • Invite deaf adults to come to the school and share stories, • Implement a circle of friends programme. • Structure activities and experiences for deaf and hearing students to work together. • Teach a unit on specific topics (e.g., friendship, avoiding fights, emotions, stealing, dating, dealing with divorce). • Provide direct instruction on specific social skills (e.g., starting conversations, giving compliments, responding to criticism).

For more information visit: http://www.deafsa.co.za/

7.1.4.2 Partial Hearing Loss

AUDITORY BARRIER – PARTIAL HEARING LOSS (hard of hearing)		
CHARACTERISTICS	**IMPLICATIONS:**	**STRATEGIES:**
A LEARNER MIGHT HAVE DIFFICULTY IN HEARING –SHE MAY BE HARD OF HEARING	Learners may: • Elicit only parts of what has been said. • Show frustration associated with the inability to communicate. • Experience difficulty in retrieving the appropriate words from memory. • Have difficulty in understanding the general level of language.	• Place the learner near the front of the class to minimise distractions. • Stand where the student can lip-read • Face the student when talking. • Background noise should be eliminated. Keep the learner's desk clear. • The position of the teacher or another learner speaking, and the learner experiencing a barrier is very important. • The position and source of light need attention. • Visual distraction (pollution) (e.g., classes that are too full) should be eliminated. • Assistance can be given by a person or by using a technological device (e.g., hearing aid and FM system). • Listening can be supported with non-verbal cues. Gestures, lip-reading, facial expressions (don't over-do it) and pictures, for example, can assist with comprehension of vocabulary and concepts. Never assume that the learner understood what you said; check by asking questions. • Ask the learner to repeat the instruction back to you.

AUDITORY BARRIER – PARTIAL HEARING LOSS (hard of hearing)		
CHARACTERISTICS	**IMPLICATIONS:**	**STRATEGIES:**
		• Rephrase questions and sentences rather than merely repeating. • Do not discourage translations by other learners. • When giving instructions the tempo and clarity of speech is important. Use shorter sentences, less information per sentence (not too wordy), and increase the length of pauses between sentences. Gaining eye contact and lowering of body to the learner's eye level will also help. • Verbal instructions may be broken down in two or more steps at a time. • Show the learner what you want him or her to do, rather than simply telling. • One learner speaks at a time: no overlapping of speaking turns. • Encourage learners to ask questions for clarity and meaning. • In some cases, you may have to use extended sentences for learners. • Frequently used non-verbal signs could be placed on the classroom walls. • When notes need to be taken during the lesson, appoint note-takers. • Provide a copy of your notes, if possible. • Highlight key words or concepts in printed material • Provide a list of key concepts or vocabulary for new material. • Use concise statements or simplified vocabulary. • Learners seated in a horse shoe or half circle are able to observe the teacher as well as each other while communicating. • Use peer tutoring. • Use games for drill and practice. • Use DVDs with subtitles. • Use boards, pictures, posters with words and pictures, and overhead projectors. • Repeat information verbally or in writing. • Use interest inventories to identify positive reinforcements for each individual. • Provide regular feedback and check progress often.

AUDITORY BARRIER – PARTIAL HEARING LOSS (hard of hearing)		
CHARACTERISTICS	**IMPLICATIONS:**	**STRATEGIES:**
A LEARNER MIGHT HAVE DIFFICULTY WITH RESPONSE	Learners may: • Show frustration associated with the inability to communicate. • Experience difficulty in retrieving the appropriate words from memory. • Have language usage that is not as sophisticated as that of their peers. • Have difficulty in understanding the general level of language. • Have difficulty describing pictures or experiences. • Have little variety in language usage. • Seem excessively shy and non-verbal. • Point to things rather than ask for them. • Speak in isolated words or sentence fragments.	• The use of alternative or augmentative communication modes (e.g., miming, gestures, facial expressions, writing, pictures, graphics and any technological devices). • Recommend appropriate speech services by a trained professional or speech therapist. • The learner may need time to organise his or her thoughts prior to giving a response. Allow sufficient time for the learner to respond. Wait for the learner to recall the words from memory. Don't try to hurry him or her along. If there is no response wait before modelling the response. • Formulate simple questions. • Provide the correct model of speech without highlighting the error. For example: If the learner asks, "I bathroom?" the educator can respond, "Yes, you may go to the bathroom." • Expand the learner's language by providing more advanced vocabulary. If the learner says, "I hate that book" the educator can say, "You think that book is boring, do you?" • Use the present tense to simplify your sentences. • Introduce new vocabulary at the beginning of a new theme. Pay special attention to abstract concepts (e.g., summarize, measure). Teaching categories also develops vocabulary. • Provide the learner with enough opportunities to communicate, and discourage peers from speaking for the learner. • Concrete resources will assist the learner in speaking about a given topic and will provide visual aids to assist in understanding and feedback. Teachers and peers need to have an expectation of what the learner will contribute to conversations and group discussions. The group should be small, with members facing each other. • Focus on what the learner is telling you, rather than just on the language being used. • Allow learners to make models, role-play, develop skills, and create art projects to demonstrate their understanding of the information. • Allow written or drawn responses to serve as an alternative to oral presentations. • Allow learners to use a computer or word-

AUDITORY BARRIER – PARTIAL HEARING LOSS (hard of hearing)		
CHARACTERISTICS	**IMPLICATIONS:**	**STRATEGIES:**
		processor. • Encourage social interaction during break times.
A LEARNER MIGHT HAVE DIFFICULTY WITH SOCIALISING	Learners may: • Withdraw from the group • Isolate themselves	• Make hearing learners aware then they should speak slowly and clearly. • Make books available about hearing loss and deafness. • Implement a circle of friends programme. • Structure activities and experiences for hearing-impaired learners and hearing learners to work together. • Teach a unit on specific topics (e.g., friendship, avoiding fights, emotions, stealing, dating, dealing with divorce). • Provide direct instruction on specific social skills (e.g., starting conversations, giving compliments, responding to criticism).

For more information on early hearing detection and intervention visit: http://www.ehdi.co.za/ and http://www.trinity.edu/org/sensoryimpairments/index.htm

7.1.5 Visual loss

7.1.5.1 What is visual impairment?

Visual or vision impairment is vision loss that constitutes a significant limitation of visual capability resulting from disease, trauma, or a congenital or degenerative condition, that cannot be corrected by conventional means, including refractive correction (contact lenses or spectacles), medication, or surgery. For some learners who are wearing contact lenses or spectacles, even the best attempts at correction (maximum correction) by an eye specialist are not sufficient for those learners to be able to function in a classroom without special intervention and support. What does this mean? How does one identify a learner who needs special intervention and support because of a specific degree of loss of vision?

7.1.5.2 Identifying visual loss in learners

Learners with **complete visual loss or blindness** (visual acuity <3/60 Snellen) are not difficult to identify. They will not be able to read any ordinary print, write normally, or move independently. Such learners should immediately be referred to an ophthalmologist if there is no medical report.

Evaluation of such learners can be done at some special schools with the support staff and facilities and where evaluation is done in cooperation with an ophthalmologist and optometrist.

The identification of learners who experience **partial loss of vision** is more complex, because there are so many causes and combinations of causes leading to varying degrees of vision loss. Generally speaking, learners with visual acuity between 6/18 and 6/60 Snellen are classified as moderately impaired, while learners with acuity between 6/60 and 3/60 Snellen are severely impaired and have no vision or almost no vision. They will show signs of:

- tilting the head back or bringing the book too close to the eyes;
- random scanning of the text and visual material;
- falling behind and losing the place when reading or writing;
- bending right down to the paper to write;
- light sensitivity or needing more light;
- spelling problems, lack of creativity, confusing letters, confusing colours;
- not being able to see on the blackboard;
- not being able to read ordinary print or read swiftly;
- being unable to use feint-lined exercise books or read their own handwriting;
- Not being able to understand 'busy' drawings and graphs.

A learner's visual acuity t and any other possible eye conditions should be done by an ophthalmologist. After such evaluation and consultation, the institution-level support team, the teachers and the learner will – by close monitoring and observation in the classroom – be able to establish the learner's practical needs and determine intervention strategies Such strategies will include:

- font size and format of learning support material;
- suitable stationery;
- assistive devices;
- seating in the classroom.

Partially sighted learners have diverse individual needs because of the many degrees and combinations of contributing factors.

For more information visit: http://www.sancb.org.za/

7.1.5.3 General principles of making learning accessible

All learners experiencing significant loss of vision will need special intervention and support to access learning material and learning support material. (Please refer to the table below.) If there are no cognitive barriers, visually impaired learners follow exactly the same curriculum as mainstream learners. Adaptation is only done to make the curriculum, assessment and learning support material accessible. The underlying principle for special adaptation for visually impaired learners is to enable them to access knowledge and information to the same level as other learners as well as to demonstrate their knowledge, skills and understanding on an equal footing with learners without such barriers. In the process of removing disadvantage, care should be taken not to create unfair advantages.

7.1.5.4 Reasons for adaptation

- To make tasks, activities, assessment, and learning support material accessible.
- To make tasks, activities, assessment, and learning support material meaningful.
- To give the learner with partial or complete loss of vision, an equal opportunity to learning.

7.1.5.6 Principles governing the adaptation of tasks, activities, assessment, and learning support material

As far as possible, the aim should always be to maintain the purpose of the learning outcomes or assessment standards. Adaptation or modification should only happen when the understanding and/or visual skills of the learner are compromised as a result of a significant degree of visual loss. The following principles should be adhered to in the adaptation and/or modification of tasks, activities, assessment, learning and support material:

- Adaptation should only be done when it is necessary to provide access to a visually impaired learner.
- The same skills, knowledge and concepts as are contained in the original document, task, activity or assessment should be addressed.
- The same level of difficulty or should be maintained.
- The balance of the material should be preserved in terms of weighting, content and time allocation.
- In some instances, the replacement of questions, tasks or activities is justified. This should only be done if essential to enable the visually impaired learner to reach the same objective.

- The complete removal of visual material should only be considered when such material does not constitute an integral part of the purpose of learning, or when it is possible to replace the visual material with a description.

7.1.5.7 Approaches to adaptation of visual material

A picture or diagram can be:

- simplified or shown differently;
- replaced by a written description;
- supplemented by a written explanation;
- replaced by a real object or model;
- removed, if considered unnecessary;
- Altered to compensate for accurate measuring.

Visual material can as such be replaced with equivalent non-visual material. Tasks where drawing is required could be adapted within the constraints of the learning area, available resources, the complexity of the task and the learners' grade, age and/or skills. The amount of information can also be reduced.

The following table seeks to cover the approaches to intervention and/or adaptation for learners with partial or complete visual loss, generally referred to as partially sighted learners, low-vision learners and blind learners. The visual loss of these learners cannot be corrected with prescription lenses or spectacles.

Blindness refers to loss of useful sight. Blindness can be temporary or permanent. Damage to any portion of the eye, the optic nerve, or the area of the brain responsible for vision can lead to blindness. <3/60 in the better eye, after maximum correction.

Low vision is impairment of visual functioning even after treatment, for example an operation and/or standard refractive correction (has been given glasses or lenses) and has a visual acuity of less than 6/18 to light perception, or a visual field of less than 10° from the point of fixation (i.e. 20° across) but who uses, or is potentially able to use, vision for the planning and/or execution of a task

CHARACTERISTICS OF BARRIER TO LEARNING (SEE SIAS DOCUMENT)	IMPLICATIONS OF BARRIER TO LEARNING	STRATEGIES FOR OVERCOMING BARRIER TO LEARNING OR APPROACHES FOR ADAPTATION

Generally speaking, <3/60 Snellen in the better eye, after maximum correction, constitutes blind. There are, however, many complicating eye conditions and prognoses, which could result in a learner being accommodated as a blind learner, but these can and should only be confirmed by a medical specialist. A number of examples are addressed here.		
The learner is: • unable to see light or differentiate between light and dark; • unable to distinguish or recognise objects, but has light perception; • able to perceive objects as silhouettes or outlines; • able to count fingers up to a distance of one metre or a visual acuity of 1/60 Snellen; • able to count fingers up to a distance of three metres or a visual acuity of 2/60 or 3/60 Snellen. The learner has: • a visual acuity of 4/60 to 6/60 Snellen if the test is confirmed by a near vision test; or • A visual acuity of 6/60 Snellen (confirmed by a near vision test) and anomalies of the eyes, or signs of a progressive eye condition and a prognosis that the visual acuity may decrease substantially during the school years. Additional barriers to learning should also be considered before deciding on intervention strategies for such multiply disabled learners. Advice: All teachers should be trained to read Braille, to adapt learning support material and assignments, to produce suitable learning support material and to deal with assistive devices and equipment. Staff members who are capable of solving problems with equipment should be immediately available.	The learner cannot: • read ordinary print learning support material; • write in ordinary writing; • see and interpret diagrams, maps and graphs in ordinary print; • draw all types of graphs and diagrams, etc.; • see and interpret cartoons and comic strips; • see and read multimedia text such as videos and DVDs; • understand and interpret inherently visual material and concepts; • complete tasks and assessments in the same time as mainstream learners; • read and scan text and graphics as fast as learners reading ordinary print. Learners in the last two categories in the first column of this table may have to be treated as both blind and partially sighted. It is important to preserve any level of vision for as long as possible, but also not to delay introducing Braille skills too late. Specialists in the field of visual impairment should be consulted. In this transitional period, it is often helpful to provide the learner with both Braille and large print material.	• All learning support material must be translated and printed in Braille. • A Perkins Brailler is used to write in Braille. A learner may use a computer to respond. • Diagrams, maps and graphs need to be simplified (i.e., unnecessary detail or information must be removed) and printed in Braille. Tactile material should be introduced at pre-school age. For younger learners, real objects can be used to build graphs, maps or diagrams. • Information often needs to be reduced for the diagram or graph to fit on a Braille page. The level of difficulty, learning outcome, assessment standard and necessary information to perform the task or assessment must be retained. • It is possible to learn to draw certain, but not all, types of graphs without assistance. Learners should be introduced to graphs in a concrete and creative way. In formal assessment, questions should be reversed where necessary (i.e.., provide the graph and relevant information to make intelligent deductions and interpretations, preserving the same outcomes and assessment standards). • Comic strips and cartoons cannot be printed in Braille. A written description of the cartoon or comic strip must be given instead of the drawing. If it is not possible without giving away the answer, or the reading of the description takes more time than the mark allocation justifies, the task or question should be replaced with something theoretical, based on the same knowledge and skills.

		The learner should not be denied the understanding and interpretation of visual concepts. • The visual material in multimedia text must be explained to blind learners. If this is introduced from a young age, film studies can successfully be selected as one of the prescribed set works for FET. • Extra time should be allowed for teaching, reading and for learners to finish tasks. During long assessment tasks with extra time added, a short period of rest might be needed. • Use speaking calculators. • Instructions should be simplified and relevant, and should consider inherent Braille problems (e.g., "Write 25 lines," "Write neatly," or "Mark your answer with a cross.". Supply the number of words to be written and ask the learner to write down the answer down, rather than mark the answer on an answer sheet. • Group work, with blind learners grouped with sighted learners, is a good way to make visual work more accessible and to form better understanding, • It is advisable to consult the policy on concessions for external assessment in order to understand acceptable measures for reaching equality in education of special needs learners. • Use screen-reading software when learners use computers. • Ensure that learners have enough space for mobility, the Perkins Brailler, Braille books (much larger than normal textbooks), blank Braille paper, and answers. • Do not expect learners to copy down notes in class. Prepare notes in advance.
Classification of visual impairment after maximum correction: 6/6 – 6/18 = normal vision 6/18 to 6/60 Snellen = moderate visual loss (partially sighted learner);		

6/60 to 3/60 Snellen in the better eye = severe visual loss (partially sighted learner, sometimes considered blind, depending on complicating specific eye conditions).		

Partially sighted learners could have:
 	
• visual acuity in the best eye after correction of no better than 6/18 Snellen;
• substantial central or peripheral loss;
• additional impeding factors for example, nystagmus, deficient binocular vision, defective colour vision high myopia;
  • A progressive eye condition and a prognosis that the visual acuity will decrease during the school years (last two categories above).
 	
Additional barriers to learning should also be considered before deciding on intervention strategies for such multiply disabled learners.
	Learners show signs of:
	
	•tilting the head back or bringing the book too close to the eyes;
	•random scanning of text and visual material;
	•falling behind and losing the place when reading or writing;
	•light sensitivity;
	•needing more light;
	•spelling problems;
	  • lack of creativity;
	  • confusing letters;
	  • Confusing colours.
	
	Learners cannot:
	
	  • read small (textbook size) print;
	  • read as fast as normally sighted persons;
	  • see on the blackboard;
	  • accurately copy from the blackboard or dictation;
	  • use feint-lined exercise books;
	  • Read diagrams and graphic material that are too 'busy.'
	
	Learners have varying degrees of difficulty with:
	
	  • writing;
	  • organising the presentation of their work;
	  • reading back their own handwriting;
	  • sequencing ideas in a logical order;
	  • finding references or words in reading material for tasks and assignments;
	  • Selecting relevant key information.
		• Learning support material should be provided in a suitable font size and type to suit the individual learner. Arial, font size 18, printed in bold, is a starting point, but does not suit all learners.
		• Very few textbooks can be successfully enlarged to A3 or even A4 size. Contrast is very important for the partially sighted learner, and the print styles and background colours of new textbooks are not conducive to this end.
		• Electronic or other optical reading devices can be used to make text accessible for individual learners. Most learners do not have access to such technology at home, and would need enlarged material.
		• Provide worksheets and exercise books with lining darker than feint.
		• Classrooms can be equipped with electronic magnifying systems to replace the blackboard. Such systems can be used for magnification of graphic material for the group or to better see dissections and science experiments.
		• Individual reading lamps can be used for better lighting.
		• Light-sensitive learners should be placed where the light is not as bright.
		• Avoid using handwritten learning support material, except in the foundation phase, where learners are still learning to write.
		• Scribes or readers can be used for learners who have difficulty writing or reading, or an assessment can be done by amanuensis. Such persons need training.
		• Simplify overly 'busy' graphic material by removing unnecessary lines, shading, etc.
		• Reduce the amount of information in graphs and

		tables without tampering with the outcomes and assessment standards, and without giving unfair advantage by lowering the level of difficulty. • Audio books or information can be used to supplement text, but should not replace it. • Use magnification software for computers.

7.1.6 Dyslexia

Dyslexia, which literally means “difficulty with words,” is the inability to reach expected standards in reading, writing and spelling. It is regarded as a complex neurological condition affecting up to 10% of people, predominantly boys. For more information visit: http://www.dyslexia.com/

Indicators	Implications for learning	Classroom strategies
- Reading is slow. - Problems in blending and segmenting sounds in words due to inadequate phonological processing. - Constant errors with h words (and, the, but, etc.) and often cope better with difficult words as these are more easily visualised. Note: Hyperlexia is a disorder where students may have high word recognition levels and read at an early age, but have lim comprehension and difficulty with verbal language and verbal issues and social skills (www.hyperlexia.org).	- Slow information processing for spoken and written word. - Limited short-term memory. - Sequencing and organisational difficulties. - Tiredness. - Uneven performance. - Frustration may lead to bad behaviour - Writing is of an inadequate standard, displaying confusion and distortion. - Clumsiness and awkwardness with hands. -Spelling is often bizarre and the work is very messy. - Often gifted in other areas that do not require strong language skills (e.g., science, mathematics, music, sports and electronics).	- Provide memory maps of the lesson, which are available afterwards on a wall display. - Reduce board work to a minimum and never ask the learner to copy from the blackboard. - Make sure tests are short and frequent rather than long and occasional. - Provide extra help for tests and exams and arrange for extra time for the dyslexic learner. - Provide oral and written tests as the learner does better in these - Allow work on computer (e.g., a small laptop) to help the learner keep up with peers. - Provide extra help to allow the learner to develop thinking, processing and expressing skills in both speech and writing. - It is essential to develop visualising technique. - Use structured reading, spelling and phonics programmes with controlled text that build upon a hierarchy of skills, avoiding small print. - Make modifications such as helping with note-taking or allowing extra time to complete tests. - Choral or echo reading for more difficult words within text not yet learnt.

7.1.7 Attention deficit hyperactivity disorder (ADHD)

7.1.7.1 What is ADHD?

ADHD is a neurobehavioral disorder of childhood affecting between 3 and 10% of school-age children. It is characterised by age-inappropriate levels of inattention, impulsivity and over- activity that impair functioning at home and at school. Children suffering from ADHD may show difficulties such as oppositional and defiant behaviours, aggressiveness and conduct problems. Children with ADHD are more likely to have developmental delays and cognitive deficits. Early identification and intervention are necessary to offset the development of oppositional defiance disorder (ODD) and conduct disorder (CD). This could contribute towards reducing violent behaviours in schools.

7.1.7.2 Strategies for inclusion

Characteristics or observed behaviours	Implication	Strategies
- Has difficulty sustaining attention. - Often makes careless mistakes. - Is often distracted from completing an activity. - Does not seem to listen when spoken to. - Often fidgets with hands and feet. - Often talks excessively - Often cannot remain seated. - Has outbursts and is impatient. - Often interrupts and intrudes on others.	- Handwriting problems - Memory problems. - Concentration difficulties. - Underachievement. - Encoding problems. - Poor behavioural planning. - Disruption of classroom activities.	- Reinforce good behaviour by praise. - Reward every positive behaviour immediately after it occurs. - Divide the work into small steps. - Make the learner sit where you can observe all the time. The child's desk may be not far away from the teacher's table - Allow for a range of activities. These will help keep the hyperactive learner involved in educational activities. - Make the lesson interesting. - Use diagrams, graphs, visual aids (e.g., projectors, written information, pictures, programmed instruction). These allows for reinforcement and improved self-esteem. - Use alternative strategies to punishment, as punishment may increase the unwanted behaviours. - Give the hyperactive learner a variety of activities to prevent them from becoming bored or lose concentration while doing the same task for a long time. - Teach the learner organisational skills. Establish a structure of what is to be expected and be consistent. - Do not exempt the child from requirements, expectations and planning applicable to other children. - Create an environmental structure along with consistent rules and expected consequences that can help control a variety of problem behaviours. - Have the learner rephrase and/or repeat directions. Colour-code notebooks, folders and text covers for different subjects. - Reinforce study skills.

		- Provide frequent breaks, combined with stretching activities to channel motor excess. -Teach problem-solving, conflict resolution and peer mediation skills. - Establish a non-threatening classroom environment, using subtle cues for transitions.

7.1.8 Specific learning disabilities (SLD)

SLD is not primarily the result of visual, hearing or motor disabilities or intellectual, environmental or cultural factors. Causes may be linked to neurological or genetic factors. Learning disability is a real disability, rather than laziness!

Characteristics	Implications for learning	Educational strategies
Wide range of characteristics that can include the following: - Perceptual impairments. - Inattention. - Impulsiveness. - Low tolerance for frustration. - Poor organisational skills.	Difficulties with: - Reading comprehension and/or word decoding. - Mathematical calculations or concepts. - Social skills. - Reasoning (getting thoughts together).	• Use concrete, kinesthetic materials that learners can see and touch. • Divide learning tasks into smaller units and step-by-step lessons. • Capitalise upon the learner's strengths, using multiple intelligences; • Use redundancy (repeat, restate, reiterate, relate). • Vary instruction and assessment with more active involvement and fewer lectures. • Offer immediate positive feedback without embarrassment. • Emphasise consistent expectations with accountability. • Use computers to help with reading, writing and mathematics issues • Shorten assignments based on mastery. • Instructional level should encourage independence with empowerment under the teacher's auspices. (www.ldanatl.org)

7.2 Chronic conditions that impact on learning

Learners may have chronic illnesses or conditions that affect the quality of their lives. Such conditions have the potential to cause learning and development barriers. Educators should be aware of these conditions and be able to take appropriate steps to ensure the well-being of the learner while at school. The SIAS process should facilitate this, but it does not preclude consultation with parents, which is valuable for both the learner and the educator.

7.2.1 Cerebral Palsy

While *cerebral* refers to the brain, *palsy* refers to muscle movement that may be stiff, uncontrolled or unbalanced, depending on the type of cerebral palsy. Cerebral palsy is rarely associated with heredity since damage to the brain usually occurs before, during, or shortly after birth.

Cerebral palsy is not a disease. It is a non-progressive condition that is not contagious. The three types of cerebral palsy are:

- Spastic – stiff and difficult movement.
- Athetoid – involuntary and uncontrolled movement (facial grimaces, drooling).
- Ataxic – disturbed sense of balance and depth perception.

Characteristics	**Implications for learning**	**Educational strategies**
Depending upon which part of the brain has been damaged, and the central nervous system, characteristics can include: • Spasms. • Tonal problems. • Seizures. • Disturbance in gait and mobility. • Abnormal sensation and perception. • Impairment of sight, hearing or speech. • Intellectual disability. • Normal or above-average intelligence.		- Equal education opportunities. - Technology with assistive equipment (e.g., book-holder, pencil grip, word processor). - Educate other learners about misconceptions. - Involvement and peer support in social and academic activities. - Focus on strengths and interests. - Provide opportunities for success. - Life-skills instructions with appropriate skills for daily living. (www.ucpa.org)

7.2.2 Asthma and associated allergic reactions

Asthma is a chronic (long-term) lung disease that inflames and narrows the airways, and causes difficulty in breathing. Individuals with asthma and those with associated allergies tend to have heightened sensitivity to allergens and irritants.

Characteristics	**Implications**	**Strategies**
Wheezing (whistling sound when breathing). Shortness of breath. Chest tightness.	• Lack of energy or non-participation in activities. • Frequent absences.	• Know the triggers and do not expose the learner to them. They include chalk dust, art and craft materials, strong smells, pollen, cold air, over-exertion, anger and anxiety. • Inform classmates about the condition and how to assist. This will also reduce teasing. • Include the learner in physical activities but select appropriate venues for this (avoid

		carpets and newly cut grass, avoid being outdoors on high-pollen days, etc.) • Make allowances for non-involvement and/or incomplete tasks after attacks. • Create a plan to help the learner catch up when they return.

7.2.3 Diabetes

Diabetes is a condition in which the quantity of glucose in the blood is too elevated (hyperglycemia). This is because the body either produces no or insufficient insulin, or has cells that do not respond properly to the insulin produced by the pancreas. This results in a build-up of glucose in the blood. This excess blood glucose eventually passes out of the body through urine. So, even though there is more than sufficient glucose in the blood, the cells cannot access it for their essential energy and growth requirements. Without insulin, the body cannot get the energy it needs from the food eaten, causing high blood sugar levels. If untreated, this may result in diabetic coma and death. Diabetic episodes may result in a learner's inability to function optimally in school, and often call for emergency medical intervention.

7.2.3.1 There are three main types of diabetes:

Diabetes type 1 – the body produces no insulin at all.

Diabetes type 2s – the body produces insufficient insulin or is unable to utilise insulin effectively.

Gestational diabetes – the individual develops diabetes during pregnancy.

Diabetes types 1 & 2 are chronic medical conditions; this means that they are persistent and perpetual. Gestational diabetes usually resolves itself after the birth of the child.

7.2.3.2 Treatment is effective and important

While there is no cure for Diabetes, all types of diabetes can be managed treated and effective management is possible. If not managed properly, diabetes can lead to complications such as Diabetic Neuropathy, amputations, blindness, hypertension and cardiac conditions.

Most children have Type 1 Diabetes, which is commonly treated with insulin injections. The incidence of Type 2 is reportedly increasing with the rising incidence of obesity among Children. Type 2 Diabetes is often treated with a combination of diet, exercise and Medication.

It is important that parents communicate with educators so that the learner can be assisted In administering the correct dose of insulin properly at the appropriate time and how to deal with crises such as hypoglycemia incidents, when the blood sugar can drop to such dangerously low levels that the child may need to be given a sugary drink to counter-act the condition and avoid the child slipping into a diabetic coma. The child may also be allowed to lie down for about half an hour to rest, after such an incidence.

The child's lunch time activities may also need to be monitored to ensure that he or she adheres to a low sugar, low carbohydrate diet.

Strategies to manage the condition

Characteristics	Implications	Strategies
An undiagnosed or poorly controlled diabetic learner will exhibit the following symptoms: • Often thirsty. • Often tired. • Frequent urination. • Itching. • Numbness in hands and feet. • Blurred vision. • Hypoglycaemic incidents.	Poor concentration levels. Poor attention in class Dizziness. Incomplete tasks. Clumsy handwriting and poor coordination.	Allow the learner to have a snack in class if his or her blood sugar level drops. Teach the importance of sticking to a proper diet. Promote an understanding of the importance of maintaining low blood sugar levels through adherence to the prescribed treatment protocol. Educate the class about condition to reduce teasing.

7.2.4 Stuttering and stammering

Stuttering and stammering are speech disorders in which sounds, syllables or words are repeated or prolonged, disrupting the normal flow of speech. These speech disruptions may be accompanied by struggling behaviours, such as rapid eye blinking or lip tremors. Stuttering can complicate communication and can affect a person's quality of life. The condition affects boys more than girls (3:1). Symptoms can vary significantly throughout a day.

Characteristics	Implications	Strategies
Uncontrollable repetition or prolongation of words,	Unwillingness to speak in front of a group. Anxiety.	- Encourage the learner to speak or read in unison. - Singing and reading tend to temporarily reduce stuttering. - Provide a relaxed learning environment that allows many opportunities for the learner to speak. - Refrain from reacting negatively when the learner stutters. - Be less insistent that the learner speak in a certain way or speak in front of people, particularly if the learner experiences difficulty under pressure. - Speak in a slightly slower, relaxed manner. This may help reduce the time pressure the learner may be experiencing.

		- Listen attentively when the child speaks, and wait for him or her to say the intended word. Don't complete the child's sentences. Help the child understand that a person can communicate successfully even when stuttering occurs. Speak openly and honestly to the whole class about stuttering, in order to reduce teasing and to ensure that the learner is supported by classmates.

7.2.3 Epilepsy

Epileptic seizures are sudden, often dramatic "electrical storms" in the brain. Epilepsy is a brain disorder caused by nerve cells or neurons giving abnormal signals. It is not contagious and is not caused by mental illness or mental retardation. There are several different seizure types. Some cause convulsions with loss of consciousness and violent muscle spasms, while others may involve unusual sensations, brief periods of "blanking out" or manifest simply as altered behaviour. The term epilepsy is used when seizures are recurrent over an extended time period.

For more information visit: http://www.epilepsy.org.za/home/

Characteristics	Implications	Strategies
• Convulsion. • Short periods of blackout or confused memory. • Repeated movements that look out of place or unnatural. • Dazed behaviour. • Episodes of blinking or chewing at inappropriate times. • Environmental factors that might bring on a seizure include sudden lighting changes, flashing lights or loud noises. • A single seizure does not mean that a person has epilepsy; seizures can be caused by fevers, imbalance of body fluids, alcohol withdrawal or drug withdrawal.	• Poor concentration. • Memory lapses and/or difficulties. • Post-seizure tiredness or sleepiness. • Difficulty to complete tasks within a given time. • Frequent absences.	• Make plans to help the learner catch up on return. • Make allowances for extra time to complete tasks, if needed. • Repeat instructions and other information to ensure that the learner is not left out. • Teach other children about the condition to raise awareness and to ensure they all know what to do in case of a seizure, and to reduce teasing. • Provide staff and learners with information on seizure recognition and first aid, with specific directions written into the learner's profile. • Be aware of the effects of anti-seizure or anti-anxiety medication. • Ensure good communication between school and home to increase understanding for educators and parents. • Provide the learner with downtime; he or she might be exhausted after a seizure. • Help the learner lead an independent life by teaching transitional skills.

7.3 Syndromes

7.3.1 Down syndrome

A chromosomal disorder, which occurs from an accident in cell development that leaves 47 chromosomes, instead of the usual 46. Down syndrome is one of the leading clinical causes of intellectual disability. Down syndrome does not correlate to race, nationality or socioeconomic status. There is a higher incidence for mothers who give birth over the age of 35.

Learners with Down syndrome can progress with their age peers while work is reduced or simplified to accommodate their academic standard. They thrive in the stimulating environment of an ordinary class and benefit both academically and socially from the interaction with other learners. It is critical that teachers apply latest techniques in reading instruction. Research shows that the speech of children with Down syndrome improves significantly if they are taught to read from a very young age. For more information visit http://www.downsyndrome.org.za/main.aspx

Possible characteristics	Implications for learning	Educational strategies
- Lower physical and intellectual growth. - Health-related problems could include heart defects, gastro-intestinal tract problems, visual and hearing impairments. Poor muscle tone.	- Poor memory. - Speech difficulties. - Lower resistance to infection. - Difficulty understanding directions and abstract concepts. - Receptive language better than expressive language.	- Early educational and developmental services and therapies beginning in infancy. - Peer education and sensitivity to reinforce acceptance. - Increase usage of visuals, manipulatives and concrete learning. - Teach in a step-by-step manner with consistent positive feedback, drill and repetition. - Encourage independence under teacher's auspices with realistic yet high expectations. - Concentrate on potential, not limitations. - Relate new content with previously learnt subjects and real-life situations. - Transitional plans with planned community involvement and functional training for daily living skills.

7.3.2 Tourette syndrome

A chronic condition characterised by multiple motor and/or vocal tics. Symptoms tend to last a lifetime, with most people experiencing their worst in early teenage years. For more information visit: http://www.dystonia.org.za/tourettes.htm

Characteristics	Implications	Strategies
There are two types of Tourette syndrome: • **Simple** - **Motor:** Eye blinking, facial grimaces, shoulder shrug, head jerking. - V**ocal:** Noises such as tongue clicking and other throat sounds. • **Complex** - **Motor:** Twirling, jumping, touching possessions of others. Rarely, self-injurious behaviour. - V**ocal:** Coprolalia (usage of obscene language), which is present in less than 15% of the Tourette syndrome population.	- Associated with impulsivity and attention problems (ADHD). and learning and/or perceptual difficulties. - Easily frustrated. - Misbehaviour due to neurological disturbances.	- Give the learner more opportunities for movement, with frequent breaks outside of the classroom setting. - Educate peers and other staff. - Avoid seating at the front as tics can be embarrassing; even allow the learner a place to work outside of the classroom. Try to seat the learner away from visual distractions. - Encourage the use of word processor or allow alternatives to written assignments. - Allow extra time for class work or shorten assignments based upon mastery. - Cue the learner about learning expectations before a new lesson; have the learner repeat directions for a task and signal learner for transitional activities. - Be aware of and look for side effects of medication.

(Toby Karten: Inclusion Strategies That Work, 2005)

For more information on disabilities and organizations that can provide support in South Africa visit:

http://www.thutong.doe.gov.za/inclusiveeducation/DisabilitiesInformation

Resources and Further Reading

Blythe, T. and Gardner H. (1990). A school for all Intelligences in: Educational Leadership. 47(7), 33-37.

Byers, R and Rose, R. (2004) *Planning the Curriculum for Pupils with Special Educational Needs: A Practical Guide*. Fulton Publishers, London.

Department of Basic Education (2009) *Guidelines for Full-Service/ Inclusive Schools*. Pretoria.

Department of Basic Education (2008) *National Strategy on Screening, Identification, Assessment and Support*. Pretoria

Fogarty, R., & Stoehr, J. (1995). *Integrating curricula with multiple intelligences. Teams, themes, and threads. K-college*. Palatine, IL: IRI Skylight Publishing Inc.

Gardner, H. and Hatch, T. (1989). Multiple intelligences go to school: Educational implications of the theory of multiple intelligences. *Educational Researcher*, *18*(8), 4-9.

Hayward, Anne (2006) *Making Inclusion Happen: A Practical Guide*. Paul Chapman, London

McNamara, S. and Moreton, G (1997) *Understanding Differentiation: A teacher's Guide*. Fulton Publishers, London.

Mitchell, David (2008) *What Really Works in Special and Inclusive Education: Using Evidence-based teaching strategies*. Oxon, New York: Routledge

Schaffner, C. B. & Buswell, B. E. (1996) Ten Critical Elements for Creating Inclusive and Effective School Communities. In: Stainback, S. & Stainback, W. (1996) (Eds) *Inclusion. A Guide for Educators.* Baltimore, London, Toronto, Sydney: Paul H. Brookes Publishing Co.

Shaddock, A, Giorcelli, L and Smith, S (2007) *Students with disabilities in mainstream classroom: a resource for teachers*. Canberra: Department of Education, Employment and Workplace Relations, Australia.

Tomlinson, C. (1999). *The Differentiated Classroom: Responding To The Needs Of All Learners*. Alexandria, VA: Association for Supervision and Curriculum Development. ED 429 944.

UNESCO (2004) *Changing Teaching Practices: Using curriculum differentiation to respond to students' diversity*. Paris

Vygotsky, L. (1986). *Thought And Language*. Cambridge, MA: MIT Press.

Also visit the Inclusive Education Learning Space on the Thutong Portal of the Department of Basic Education:
http://www.thutong.doe.gov.za/inclusiveeducation