# FOR PRIMARY SCHOOLS OF UTTAR PRADESH

# Nidhi Basu Author

# Satya Prakash Chaurasia Illustrator









#### **PREFACE**

This IE Manual (Inclusive Education) contains the materials for facilitating and guiding the parents, caregivers, Anganwadi workers, and primary school teachers. This IE Manual contains:

- Early development of a child
- Understanding disabilities
- Kinds of disabilities
- Inclusion in education
- Breaking down barriers
- Teaching strategies for an inclusive classroom
- Adaptations for children with mixed disabilities

The IE Manual contains the materials that IE educators will adapt as resource materials and guide for inclusive education. The IE Manual must be duplicated in sufficient quantity so that every selected direct and indirect school gets one copy for their usage. The IE Manual also contains the adaptations in the form of "Lesson Plans" which will help the IE educators to guide the children with mixed disabilities.

The purpose of IE Manual to provide a guide and resource materials to Government primary schools & other formal schools to accept diverse educational needs of Children with disabilities (CwDs) and increase enrolment rate and learning level of CwDs and reduce dropout rate by ensuring accessible and modified teaching and learning methods (TLMs) to deliver quality education.

IE Manual is the part of TLMs which is developed to make the curriculum disability friendly so that CwDs and non-challenged children could both be taught in an inclusive manner. Moreover, it will also strengthen the capacity of the staff on innovative teaching methodologies and adopting child specific pedagogy to make learning simple for the children, particularly for CwDs.

The information provided in the IE Manual has been obtained from sources like government websites, MHRD Policies, Draft NEP 2019, Books and Publications, CRPD of United Nations Enable 2019, World Disability Reports 2019, WHO Guidelines 2019, UNCRPD 2019, and Learning Disabilities Guide-Rehabilitation Council of India and from many other sources.

Fr. Chandran Riymonds Director Jan Vikas Samiti Amitabh Mehrotra Founder Director SPARC India Nidhi Basu Author & Founder Director Logicbox Communications Pvt Ltd

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#### Vijay Kiran Anand

I.A.S.

Director General, School Education Uttar Pradesh, Lucknow



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UP Education For All Project Board (Samagra Shiksha)

State Project Office, Vidya Bhawan. Nishatganj, Lucknow-226007 Phone: 0522-2780384, 2781128

E-mail: upefaspo@gmail.com

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#### Forward

Educational opportunity to Divyang children is primary responsibility of the public education system and of the society as a whole and there is the dire need to create an ecosystem where inclusion is actually practiced in the school system so that children with disabilities and other children study in tandem and are sensitized towards the needs and practices of each other.

There is need to develop a manual to sensitize the primary school teachers, caregivers and anganwadi workers and interventions needed therein. SPARC- India is dedicated towards creating an inclusive environment and opportunities for children and persons with disabilities. SPARC- India has prepared the manual with collaboration of Jan Vikas Samiti, Varanasi and Holy Cross Welfare Trust, Sitapur. The manual provides ready to use information about types of disabilities and early interventions strategies for children with disabilities and children who are lagging in learning outcomes.

I am sure that this manual will be useful to primary school teachers, caregivers and anganwadi workers for providing better inclusive education to children with special needs.

(Vijay Kiran Anand)





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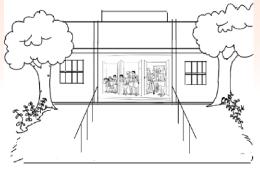
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# 1. INTRODUCTION

The first eleven years of life across which primary education extends, are most crucial for the development of a child. Particularly, the period between birth to five years or early childhood is very significant as this is the time the child attains maximum growth.

This is the reason the National Education Policy has drafted a concept of 'Foundational literacy' for the first 5 years that includes three years of pre-schooling (ages 3-6) and two years for class I & II (ages 7 and 8 years). It is followed by 3



years of primary, 3 years of upper primary and four years of secondary schooling.

The child also learns more quickly at this stage of foundational literacy than at any other stage in life. The quality of environment that surrounds the child during these years plays a significant role, directly impacting the cognitive, social and emotional development for the rest of life.



When a child is loved and cared for, the pace of learning becomes even more rapid resulting in a healthy and happy child who enjoys learning and interacting with those around her/him.



A neglected child is sad and might find quickly from the environment difficult to cope with normal daily living.

Growth and development taking place in children follow a certain kind of pattern. These are known as 'developmental milestones'. Some children may not show growth and development as predicted by these development milestones and with time they might fall short of many childhood related challenges; and might even be associated with some cases of disabilities. Lack of educational and economic facilities may often delay the acceptance and diagnosis of such challenges and disabilities in children. Sometimes these disabilities may not be diagnosed or addressed at all.

As environment has a significant direct impact on growth of children, early childhood care and interventions therefore, provide us a lot of scope and opportunities as teachers, care givers, parents, family to work towards creating an environment that supports and develops the abilities of each child to the fullest.



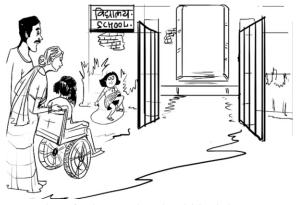
The key factors that determine adequate cognitive, emotional and social growth and development for

#### a child are:

- Awareness regarding medical facts concerning varied disability conditions
- Eradication of superstitious beliefs and practices from society
- Realization among parents and care-givers, about the importance of education and furnishing equal opportunities for all children, especially girl child and children with disabilities
- Adequate health and rehabilitative infrastructure in the Anganwadis and primary schools



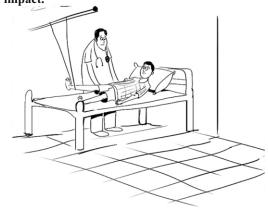
Elimination of superstitious beliefs and practices is important in order to focus oc real issues concerning disability.



Education of children with disabilities is important especially that of girl child.



Being aware of medical facts regarding various disabilities can help prevent them or reduce their impact.

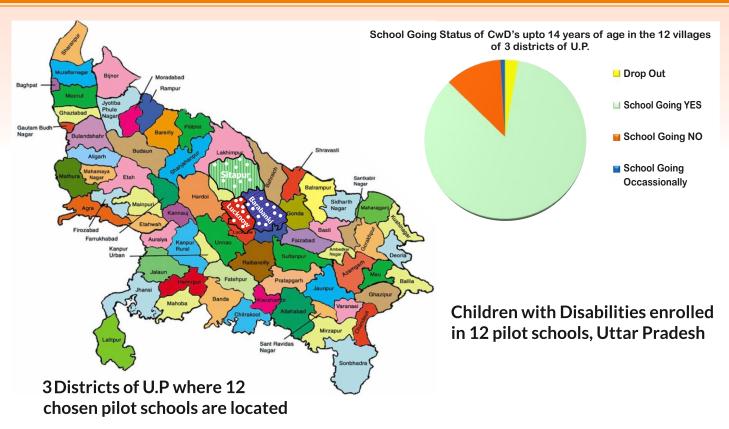


Proper health and rehabilitative care facilities are required in anganwadis and primary schools.

We need to understand that a child who is born with a disabling condition can overcome it, if we all play our parts effectively and consistently. With this belief and determination, the 'Inclusive Education Project' is being undertaken under joint efforts of JVS, SPARC-India and Holy Cross Welfare Society in twelve villages of three districts in Uttar Pradesh, they are Sitapur, Lucknow and Barabanki.

The primary schools and teachers have taken a big lead after being sensitized to disabilities and parents have also lent their support. Many children including those with disabilities from these project areas have been admitted to schools, a process which might have taken longer time. The objective of the project of enrolling maximum children with disabling conditions has already been accomplished. Now a regular classroom in most of the schools in these schools of Sitapur, Lucknow and Barabanki accommodates one or more children with disabilities.





**TABLE 1: Name and Location of 12 Pilot Schools Of Uttar Pradesh** 

S.N	Name of the district	Name of the block	Name of the Village	Name of the School
1	Lucknow	Bakhshi Ka Talab	Sarakpur Saraiya	Primary School
2	Lucknow	Bakhshi Ka Talab	Bhauli	Primary School
3	Lucknow	Bakhshi Ka Talab	Rampur Behra(Saraiyan)	Primary School
4	Lucknow	Bakhshi Ka Talab	Malookpur	Primary School
5	Barabanki	Nindoora	Ghunghter	Primary School
6	Barabanki	Nindoora	Tikaitganj-1	Primary School
7	Barabanki	Nindoora	Anwari	Primary School
8	Barabanki	Nindoora	Odariya	Primary School
9	Sitapur	Khairabad	Binaura	Primary School
10	Sitapur	Khairabad	Bhagwanpur	Upper Primary School
11	Sitapur	Khairabad	Dharaicha	Upper Primary School
12	Sitapur	Khairabad	Kaithabhari	Primary School

(Source: SPARC-India-JVS project Data as on November 2019)

In a notable development, ramps with railings and accessible toilets have been constructed in most of these 12 pilot schools, thus making them barrier free.





This manual has been written as a part of this 'Inclusive Education Project'. It was originally meant to be written only for government primary school teachers of the 12 pilot schools where this project is being implemented but in view of recently introduced 'Samagra Shiksha Abhiyan' and Draft National Education Policy 2019' where education envisages the school' as a continuum from pre-school, primary, upper primary, secondary to Senior Secondary levels (Samagra.mhrd.gov.in,2019); this manual can also be used by teachers of government and private pre-schools and primary-schools.

This manual can also be used by pre-school and primary school administrators, helping staff, ICDS Anganwadi workers, policy makers as well as family members of a child with disabling condition, or anyone who would like to ensure equal and quality education for children with disabling conditions.

With growing number of students, including children with disabilities walking into classrooms in government primary schools and Anganwadis, the teachers and Anganwadi care-givers also need to prepare themselves to facilitate a class with children of mixed abilities.

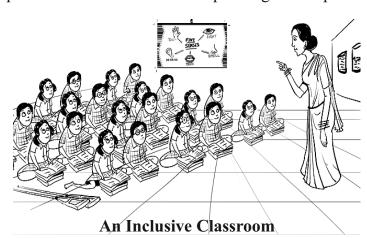
# 1.1 THIS MANUAL HAS BEEN WRITTEN WITH THE OBJECTIVES OF:

- Sensitizing the primary teachers, caregivers and Anganwadi workers to various disabilities by providing ready to use information about types of disabling conditions
- Providing early interventions strategies for children with disabilities and children who are lagging in developmental milestones and; creating classrooms that include children of all abilities.



We hope that after going through this manual, primary teachers, caregivers and Anganwadi workers will have a greater understanding of children with disabilities and those lagging in developmental milestones and accept these children as a part of diversity that exists in educational institutions.

Inclusive Education begins when we accept that a child with disabling condition is also *first a child*, but and needs to be supported like all other children; may be at times some additional support. It begins when we respect differences among children and are *willing to be responsive out of concern and commitment*. We need to be responsive enough to accommodate a student's learning style or special education need while explaining a concept or undertaking an activity in the class.



This change in the attitude of caregivers and teachers reflected positively in interactions with a child who has disabling condition, will further have a positive impact on the peer group of the child and eventually on the community. In this manual we have tried to list out many known facts and best practices but only you can add to the list, adapt according to the local environment and create and share YOUR BEST PRACTICES.

It is only when the parents, caregivers, Anganwadi workers, and primary school teachers come together, each of our children with disabling conditions can look forward to better quality of life - at home, pre-school, school and ultimately later on in the community. In the process; all other children also benefit.

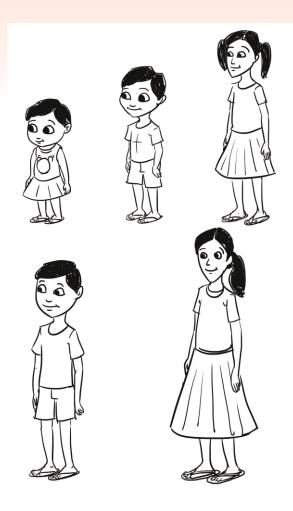
#### 1.2 HOW TO USE THIS MANUAL

The manual contains information and strategies that can help anyone who is willing to work in the field of inclusive education as an early care giver, teacher, parent, family member or a policy maker. It has following segments:

- Introduction
- Early Development of a Child
- Understanding Disabilities
- Kinds of Disabilities
- Inclusion in Education: Facts and Questions (FAQs)
- Breaking down barriers Facts and Questions (FAQs)
- Teaching strategies for an Inclusive Classroom
- Adaptations for Children with Mixed Abilities
- Recommendations and Suggestions
- The manual can be read completely or segment wise as required



# 2. EARLY DEVELOPMENT OF A CHILD



Teachers and early child-care providers play an important role in the early development of a child. They need to be aware of typical growth patterns of a child and how best to support a child in the early stages of growth and development.

Birth onwards there is a certain pattern of growth and development in children that indicates how and when a child will develop. Skills of a baby such as rolling over, smiling, sitting, walking and talking as she/he grows, are known as 'developmental milestones'. Developmental milestones are things that most babies are usually able to accomplish at a certain age and come about in sequential order.

However, some children do not develop as per the indicated developmental milestones.

They face challenges and may have been diagnosed for, or show signs of a disabling condition. Such children may need more care, love and affection, attention, encouragement, mental stimulation, nutrition and health

care to help them reach their full growth potential. Like any other children, they also need to be encouraged to talk and play with other children and share responsibilities.

Developmental milestones for each stage of a child are based on the following parameters:

- Physical
- Cognitive
- Social and Emotional
- Self-Care

Being aware of growth milestones of children helps us to observe a child who seems to be lagging behind the children of her/his age-group and some key areas may need interventions.

The development milestone chart also gives possible activities that can be done with the child at home, or even with the entire class with the awareness of the purpose with which it is being done.



Table 2: Growth and Development Milestones of a child

Age	Physical	Cognitive	Social & Emotional	Self Care
By 1 year	Sit without support. Can hold up head and moves it in all direction. Can twist and turn while sitting. Pulls self up to stand without support for a few moments. Most babies are starting to walk by one year, the range for walking being from 9 months -17 months. Listens with close attention. Can focus on small things and pictures.	Speaks 2-3 single words- mama Takes longer interest in activities of interest Copies simple actions. Can understand and follow simple instructions if accompanied with gesture (sit down) Explores things by shaking, banging, throwing. Looks for toys that fall out of sight. Points to objects using index finger.	Recognizes family and several people. Trusts parents and caretakers. Cries when mother or father leave. Plays by herself. Exhibits liking for certain things and people. Starts enjoying simple games like peek-a-boo. Repeats sound or actions to get attention.	Drinks from glass herself
By 3 years	Runs and climbs easily.  Can walk on tiptoe and heels.  Can throw a ball.  Pedals a tricycle.	Curious. Can say name. Can answer simple questions. (what is your name) Can draw straight line. Can name at least 1 colour and count to two. Can sort objects. Can do puzzle with 3-4 pieces. Copies a circle with crayon. Can talk in 2-3 simple sentences. Point to things when asked (point your eyes) Can understand and follow simple instructions.	Feels pride when praised, guilty when disobedient. Interacts with both adults and children. Begins to play with other children independently. Takes turns in games. Plays make believe games with toys and people. Shows concern if a friend is crying. Likes to be praised after completing tasks. Has separation anxiety. Emotional attachments to toys and people.	Can feed self, spilling a little. Can wash hands. Is mostly toilet trained, but night time control may still be developing in some children. Can take off simple clothes. Can help put things away.
By 6 years	Can hop on one foot. Can jump with feet apart. Can walk downstairs alternating her feet. Can throw and catch a ball. Sees small shapes clearly at 6 metres. Can listen with focus for 5-10 minutes Speaks very clearly. Enjoys rhymes and word play. Can tell a simple story using simple sentences.	Can say name and address. Can name at least three colours. Can count to 10. Can write a few letters and numbers. Uses simple sentences. Can understand and follow multiple instructions.	Separates easily from parents. Wants to be with friends and be like friends. Sometimes demanding, sometimes cooperative. Understands and agrees to most rules. Is aware of gender. Likes to sing, dance and act. Can tell difference between real and make-believe. Has started to understand the concept of money.	Can button some of her clothing. Fully toilet trained. Bathes and dresses herself. Helps with simple work. Shows more independence in action. (May go to a neighbour's place herself, though supervision is still needed)
By 9 years	Start showing gender related growth and development patterns. Girls start getting taller and weigh heavier than boys. Stronger and smoother muscle control. Starts losing baby teeth and grow permanent teeth. Like physical challenges. Starts gaining skills for team sports. Longer attention span, but interests may shift quickly.		Strong desire to be a part of a group at school.  Vulnerable to peer pressure.  Friendship is situation specific.  Know that people can have different viewpoints.  Rules can be negotiated.  Aware of social issues around them.	More independent and want to manage their grooming and personal hygiene themselves.  Take part in many household chores around the house.
By 11 years	Has a bigger appetite and needs more sleep. Experience growth spurts. Puberty related signs might start developing in some children. Girls might start with their periods. Complain of growth pains and cramps. Develop hand eye co-ordination.	Accurate perception of events, rational logical thought. Reflects upon self. Understands space, time, dimension. Reading skills develop further. Handwriting improves.	Wants to spend more time with friends. Prefer to have friendships with same sex. Recognition by friends becomes important. Understands how one persons behaviour affects others.	Becomes image conscious.  Takes greater care with dressing.



child starts learning from the time he/she is born in order to survive and grow. This is true for both, a child without disability and a child with disability.

What a child learns and the pace at which learning takes place is fastest between age-group 0-6 years. The 'environment' of a child decides her/his preparedness for schooling as well as how the child will respond to learning imparted in a school environment. The 'environment' of a child primarily comprises of:



1. Interaction



2. Encouragement



3. Awareness towards hygiene, healthcare and nutrition



4. Socio-economic and educational status of family

These factors have great significance when a child, coming from a socio-economically weaker family enrolls in a pre-primary and primary school. Many a times the quality of interaction and stimulation provided at home maybe lacking to an extent so as to hamper the development of language, cognition and selfcare in a child. Some children may also face delays in physical and mental development, and some may have acquired such challenges due to polio, accidents, multiple sclerosis etc. In such a situation a holistic environment and equal learning opportunities need to be provided for each and every child of the classroom, without differentiating on the basis of a challenge a child might be facing, gender, class, caste or creed.

Children reach growth and development milestones roughly at the same time (Table 2), although each child grows and develops differently. Let us understand the stages of growth and development in children from the time they are conceived, up to a period of eleven years, the period of primary schooling.



# 2.1 Early childhood and its significance (0-6 Years)

From the time a child is conceived, up to six years, particularly the first three years are very important for the growth and development of each child. These are some critical periods in the course of brain development, particularly for development of vision, emotional control, habitual ways of responding, language and literacy, symbols and relative quality, all of which can impact on school learning and achievement. (Mustard et al, 1999).

This critical period of 0-3 years is therefore an opportunity for parents and care-givers to foster cognitive development by providing the required stimulation of all faculties of a child. Adequate healthcare, love, emotional support, playful approach and meaningful interactions help in steering a child's development to its fullest potential. Children who face development challenges need to be specially cared for. Early healthcare, good nutrition, emotional support, proper diagnosis and interventions are particularly beneficial for a child with disability between 0-6 years than at later stages.



Anganwadi workers and pre-school teachers can play a positive and decisive role at this stage before a child enrolls in primary school.

A six-year-old whose cognitive, linguistic, perceptual and social skills have been developed systematically, health and nutrition taken care of, and self-esteem not tampered with will show greater readiness for schooling and interest in learning inside or outside the classroom. On the other hand, children who have been deprived of adequate nutrition and psycho-social stimulation in these years might develop learning, behavioural or emotional deficiencies later in life.

Developmentally appropriate interactions with children between 0-6 years along with play based problem solving hold a key to this. (Refer to Annexure 1 for suggested Activities

Let us take a quick look at the developmental stages of a child from 0-11 years:



# 2.1.1 Between 0-3 years

This stage is all about providing nutrition, emotional support and brain development.

- The focus is more on love and emotional support given to a child through infant interaction
- Adequate nutrition and health interventions if required
- Exploratory/preliminary infant play
- Early assessment if any milestone is unusually delayed

# 2.1.2 Between 3-6 years

The brain development is notable during this stage and the social development starts.

- Nutrition and healthcare continue to be important
- Planning higher level of cognitive and creative activity is extremely important
- Opportunities of social interaction with peers
- Development of motor skills.

# 2.2 Between 6-9 years

The child begins to become more independent and hence social skills are quite important.

- Development of fine-motor skills begins writing
- Language development-reading, speaking longer sentences and learning to express feelings
- Conceptual development big-small, above-below, spatial development, depth perception
- Analytical thinking
- Enjoys role plays- alone and with peers
- Learns to take turns

# 2.3 Between 9-11 years: Pre-adolescence

At this stage the child gains more independence, self-esteem becomes quite significant, as well as peer-relationships

- Continued language development and cognitive development
- The child starts to form more complex friendships
- Experiences more peer pressure
- Self-esteem is quite significant
- Develops a sense of responsibility
- Has a greater attention span
- Body awareness increases and the child becomes more aware of own body. Girls might show
- signs of puberty

The chart given on pages 7 will help you track growth and development milestones of each of the children in your class. If you observe:





#### 2.4 Here is What You Can Do

Observe the child even more closely and share concern with the resource teachers or inclusive education project team members.

Once there is more clarity discuss with parents, ask for case history of the child that you may not be aware.

Suggest a few activities and early childhood interventions parents can do with the child (refer to annexure 1).

Refer the child to health services.

Share the information and possible resolution with colleagues across schools and other forums.

Do not disappoint the child in any way. A child who may be facing any physical or mental challenges will need twice your support as teacher, care-giver or parent.

Let the child know that he/she is as much loved as other children by including him in conversations and assigning duties he/she can carryout.



# 3. UNDERSTANDING DISABILITIES

# 3.1. What is Disability?

Most of us are likely to feel disabled at some point in our lives. Almost everyone will be temporarily or permanently impaired at some point in life, and those who survive to old age will experience increasing difficulties in functioning. ("World report on disability", 2019).

Disability is a complex phenomenon that has always been an area of concern for the society having impact on the lives of the people it affects and also of those around them.

# 3.1.1. How do we define disability?

Disability can be understood from many perspectives. The definitions of disability and I'm impairment have also been evolving with time, mainly to provide a basis upon which government and society can devise strategies for meeting the needs of people with disabilities.

# 3.1.2 The United Nations definition of disability:

1. The UN Convention on The Rights of Persons with Disabilities (UNCRPD, 2006) is a treaty that has been signed by 162 countries. Its purpose is 'to promote, protect and ensure the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities, and to promote respect for their inherent dignity' ("Convention on the Rights of Persons with Disabilities (CRPD) | United Nations Enable", 2019)

The UNCRPD was adopted on 13 December 2006, with a purpose to promote, defend and reinforce the human rights of all persons with disabilities, and defines disability as the following:

UN CRPD: Disability results from the interaction between persons with impairments and attitudinal and environmental barriers that hinders their full and effective participation in society on an equal basis with others..... Persons with disabilities include those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others.

The UN CRPD definition makes it clear that disability is not an attribute of a person; rather it is a result of a person with impairment or health issues being in an environment which is lacking accessibility and inclusion

The UN CRPD definition makes it clear that disability is not an attribute of a person; rather it is a result of a person with impairment or health issues being in an environment which is lacking accessibility and inclusion.



# 3.2 Influence of environment:

The environment has tremendous influence on the experience and extent of disability. Environments that are exclusive, create disability because they creating barriers that restrict participation and

!?

A person with speech impairment without a sign language interpreter



A wheelchair user wondering how to get into a building that doesn't have a ramp



A student having loco motor disability trying to find his way in a classroom littered with furniture

inclusion. Few examples of the possible negative influence of the environment include:

2. International Classification of Functioning, Disability and Health (ICF) is a World Health Organisation's (WHO's) framework for health and disability. ICF defines Disability as:

'Disability is an umbrella term, covering impairments,' activity limitations, and participation restrictions: An impairment is a problem in body function or structure, an activity limitation is a difficulty encountered by an individual in executing a task or action, while a participation restrictions is a problem experienced by an individual in involvement in life situations.'

Disability is thus not just a health problem. It is a complex phenomenon, reflecting the interaction between features of a person's body and features of the society in which he or she lives. Overcoming the difficulties faced by people with disabilities require interventions to remove environmental and social (International Classification of Functioning, WHO, 2019)

# 3.3 Evolution of the Concept of Inclusive Education:

The Social Model definition of disability redefined the way education was imparted to children with disability in Special Schools. Whereas they were earlier seen as having physical and mental limitations, the focus now shifted to the limiting infrastructure the schools provide- in terms of classroom teaching and infrastructure which excluded children with disability from enrolling.

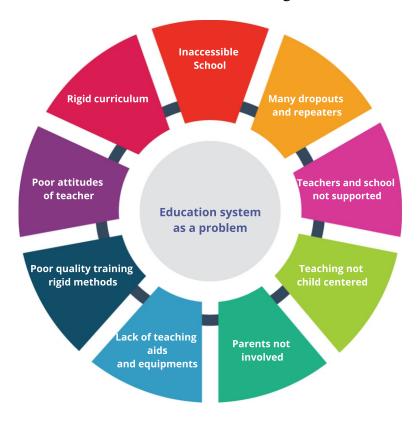
The Salamanca Statement issued in 1994 (UNESCO.(1994) at the Salamanca Conference on Special Needs Education defined inclusive, as recognition of the need to work towards "school for all" - institutions which every body, celebrate difference, support learning, and respond to individual needs."



The illustration below depicts the traditional approach towards children with disabilities, here a child with a disability is considered a problem because he /she could not benefit out of a rigid the school system, attitudes of teachers and peers and an inaccessible school environment.



The shift is now towards a system which is more child - centred. This involves adopting an education system that suits the needs of all children including children with disabilities.





# 3.4 Defining Disabilities in India and Uttar Pradesh:

Nation's Convention on the Rights of Persons with Disabilities in 2007, India became a party to this treaty. It was in keeping with the spirit of the principles upheld in the UNCRPD as well as its own commitment to protecting people with disability against various kinds of discriminations. Also to increase participation and inclusion in the society as well as ensuring equality of opportunity and accessibility, the Indian Parliament passed the Rights of Persons with Disability Act in 2016.

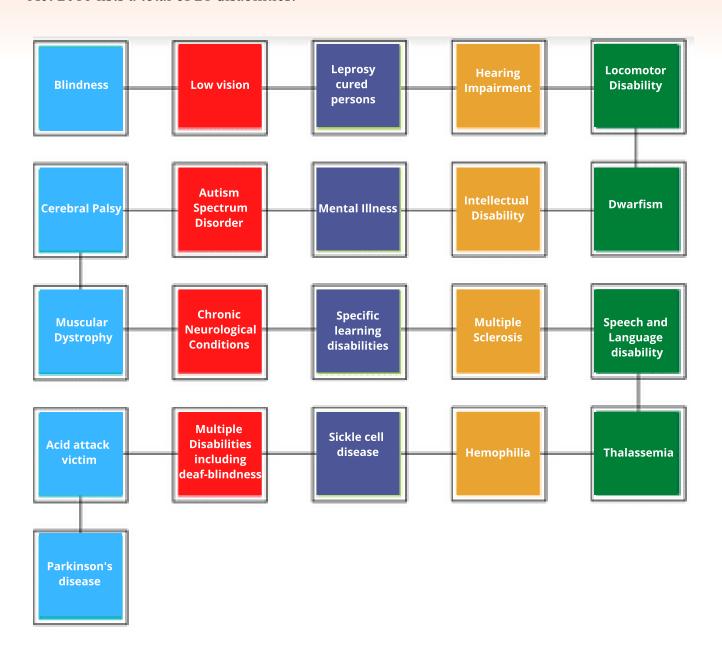
Rights of Persons with Disability(RPWD) Act 2016, Government of India, widens the definithe notion of disability in India as it increases types of disabilities from 7 to 21. It also addresses some of the long outstanding issues that concern persons with disabilities in India such as the right to free education for disabled children, a framework for supporting institutional and social infrastructure, making environment accessible and inclusive and also makes provisions of punishment for violation of RPWD Act.

The RPWD Act adopted by the Government of Uttar Pradesh on 6th November 2017 maybe be viewed as a significant step by the Government in the consolidation of many previously introduced acts and legislation concerning persons and children with disabilities and including more persons with disabilities by widening the definition of disabilities.



# 4. TYPES OF DISABILITIES

A disability might be physical, intellectual or mental or a combination of two or more. The RPWD Act 2016 lists a total of 21 disabilities:



However, for the purpose of 'inclusive education', we will focus on the following categorization of disabilities given in the Schedule of the RPWD Act 2016:

Broadly it can be put in to two categories:

- {A} Physical Disabilities
- {B} Cognitive and Intellectual Disabilities



# **Physical Disabilities**

- Locomotor Disabilities
- Cerebral Palsy
- Muscular dystrophy
- Visual Impairment
- · Hearing Impairment
- Speech Impairment

# **Cognitive and Intellectual Disabilities**

- Specific Learning Disabilities
- Autism Spectrum Disorder

# 4A. Physical Disabilities

A physical disability is a limitation of a person's physical functioning, such as walking, and movements, fine motor skills, speech and communication, bowel movement etc. Physical disabilities may be present during birth or may evolve later due to some accident, injury or disease. A child might have one or more than one physical disabilities.

Physical disabilities also include impairments of aspects of daily living such as self-care.

### 4A.1.1. What are Locomotor Disabilities?

# 4A.1. Locomotor Disabilities

In Hindi language 'Locomotor disability' can be understood as "chalne phirne mein asamarthata" restricted to limbs, but locomotor disability maybe associated with bones, joints and muscles. A number of medical conditions may cause temporary or permanent locomotor disability. Locomotor disability refers to a person's inability to execute distinctive activities associated with movement of self and objects, resulting from affliction of musculoskeletal and/or nervous system (The Draft Rights of Persons with Disabilities Bill, 2012).

Thus, locomotor disability maybe described as a disability of the bones, joint or muscles leading to a substantial restriction of the movement of the limbs. The causes of locomotor disability may prevail since birth or acquired due to some traumatic incident such as road accidents or falling down from a tree.



According to the Census 2011, locomotor disabilities form the largest group of disabling disorders. A child who is unable to or able to move his limbs in a restricted manner might be as intelligent and capable as any other child but due to apparent locomotor disability, might be subjected to some prejudices and mistreatment. In the first step of including the child, school and classroom need to be made accessible for his/her movement. Once the child can easily move around, the process of learning will follow.

# **4A.1.2** Types of Locomotor Disabilities

- Cerebral palsy
- Polio
- Muscular dystrophy
- Spina Bifida
- Arthritis
- Osteogenesis Imperfecta (Brittle Bone disease)
- Congenital malformation of the limbs acquired brain injuries
- Orthopedic conditions.
- Dwarfism

# 4A.1.3. Recognising Locomotor Disabilities in a Child



In the rural set up where education and awareness regarding disabilities are generally lacking, teachers can play a significant role in identifying children who might need to be further examined for locomotor disabilities. Children spend a good few hours under the direct supervision of their class teachers, a careful assessment on the basis of a given checklist can help identify the child and prevent or reduce the severity of the locomotor disability. Not just the identified children, all children must undergo regular medical check-ups so that any weakness, deformities etc. can be identified at an early stage so that corrective measures can be promptly initiated to prevent further deterioration.

Given below are a few important signals that can help in identification of locomotor disability in a child:







2. Not able to raise both the arms fully without any difficulties



3. Is not able to grasp objects without any difficulty



4. Has absence of any part of the limb



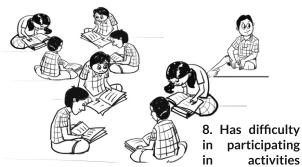
5. Has difficulty in walking in the class and school



6. Has difficulty in writing



7. Has difficulty sitting at a standard desk or floor.



where tables and instruments are difficult to access, such as in art classes



9. Uses appliances e.g. stick, crutches, wheelchair, tricycle



# 4A.1.4. Understanding Specific Needs of a Child with Locomotor Disabilities

You might have figured out as teachers that children with locomotor disabilities often face challenges to navigate themselves inside and outside of a classroom. A child with Locomotor Disabilities faces many restrictions due to the difficulty in movement and dexterity. As a result she/he has special needs that the school and class teachers need to understand so that interventions and accommodations can be planned and he/she can be included in a classroom, participate equally in activities and have an equal chance to compete.

# 1. Restricted strength, speed, endurance, coordination and manual dexterity

- Need for medical and therapeutic interventions
- Need for making the classroom accessible by providing accessible seating arrangement in the classroom.
- Need for support in academic tasks such as reading, writing, taking notes, tests and computing-peer-buddy system or writers.
- Need for physical participation in group project and activities.

# 2. Restricted range of motion and control of limbs

- Need for continuous physical therapy and occupational therapy exercises.
- Need of support during class room and other activities such as mid-day meal as well as unstructured movements in between class or outdoor activities.

# 3. Restricted mobility

- Need to use aids such as wheelchair, walker, crutches, splints and communication devices.
- The use of these aids requires all places in the school to be accessible- ramps leading up to classrooms, classrooms, toilets, meal- areas, library etc.

### Specific needs of a student with impairment to the lower limbs:

- Appropriate/suitable seating if not in a wheelchair;
- Adequate space and height of desk if the student is in a wheelchair;

# Specific needs of a student with impairments to hands:

• Consider alternative to activities involving writing, drawing and other fine motor activities, such as sorting, threading, solving puzzles, etc.



# 4A.2. Cerebral Palsy

# 4A.2.1. What is Cerebral Palsy?

Cerebral palsy is a disorder that is related to problems of movement and posture. In cerebral palsy, the degree of disability is different in each child.

Children may have a mild form of cerebral palsy with minimal loss of function in their limbs or speech defect; to very severe forms when the child is multiplied disabled.

Brain damage or mal-development of a developing brain in pre-natal, neo-natal or infant period of development results in this kind of physical disability in varying degrees. Cerebral Palsy may occur with other associated problems of hearing, vision, language and communication, intellectual disabilities, autism and specific learning disabilities such as dyslexia. A child with cerebral palsy may also suffer from epilepsy. A child with cerebral palsy may find it difficult to talk, or maybe unable to talk properly due to difficulty in controlling his head movements or facial muscles.

Some children can walk while others need to use wheelchairs or crutches. Some children might be able to perform fine motor activities such as writing or buttoning while others might not be able to use their hands for functional activities. In cases, where thinking ability is affected by cerebral palsy children might be of average or above-average intelligence though some might show learning disabilities.

#### A few pointers about Cerebral Palsy:

- It is not hereditary.
- It is not a disease.
- It is not infectious.
- It in non-progressive

# 4A.2.2. Types of Cerebral Palsies

# Cerebral Palsies maybe of 4 types:

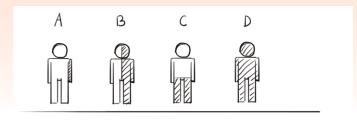
Monoplegia: Affects one limb, usually an arm

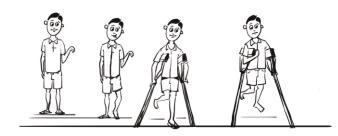
Hemiplegia: Affects one side of the body-leg, trunk and arm

Diplegia: Affects either both arms or legs

Quadriplegia: Affects all four limbs, trunk and face







A: Monoplegia

**B:** Hemiplegia

C: Diplegia

D: Quadriplegia

Cerebral Palsy is a disability for which there is no cure yet though with early diagnosis and suitable intervention, there is scope for improvement regardless of the severity of condition.

# 4A.2.3. Recognising Cerebral Palsy in a Child

Cerebral palsy occurs to a different extent in each child -the range is really vast. Unless the child has associated intellectual impairment, he will have normal intelligence. The following signs could indicate the possibility of cerebral palsy, if a child:

- Has had development delays in reaching milestones like rolling over, sitting, crawling and walking
- Has low muscle tone-parts of body are too floppy or too stiff
- Has muscle spasms
- Has involuntary movement
- Has poor muscle control and reflexes
- Muscles tighten with excitement, fear and anxiety
- Has poor posture
- Prefers to use one side of their body
- Has difficulty in walking in the class and school.
- Might have impairment of sight, hearing or speech
- Might have seizures
- Has difficulty in writing



CASE STUDY: Samar is a bright 5-year-old boy and the eldest child in the family. He has Cerebral Palsy. He lives in Sarakpur Saraiyan, Bakshi ka Talaab block of Lucknow District. The SPARC India's Inclusive Education Project team met him through Anganwadi workers of his village, during door-to-door visit were conducted for baseline survey. The IE team met his parents. His grandfather showed interest in inclusive Education concept. His mother, grandmother and grandfather also attended training on RTE and IE with other parents, community members and stakeholders. The Inclusive Education team took Samar to school for enrolment but the school administration was not keen in admitting him and gave the reason that Samar would need a caretaker. The team then approached the concerned resource teacher. She insisted and finally got Samar enrolled in Primary School Saraiyan. He was admitted in Class-1. He is now enjoying school with friends and has learnt to count till 40. SPARC-India IE Coordinator who been visiting Samar at his home has developed Individual Education Plan for him. Samar along with his parents and grandfather also attended the training program on Manual Development for Inclusive Education held in Lucknow in March 2019.

Cerebral Palsy is a disability that is not progressive though if not managed appropriately on a daily basis, the condition of the child worsens due to lack of exercise of muscles.

# 4A.2.4. Understanding Specific Needs of a Child with Cerebral Palsy

Cerebral palsy cannot be cured, but treatment can often improve a child's capabilities. In fact, many children are able enjoy near-normal lives if their neurological problems are taken care of. As cerebral palsy manifests differently in each child affected by it, there cannot be a standard therapy for all children. Instead, a team of health care professionals is needed to identify the unique needs of each child with Cerebral Palsy and create an individual treatment plan accordingly.



# Approaches that can be incorporated in this plan include:

- Drugs to control seizures and muscle spasms
- Special braces to compensate for muscle imbalance
- Surgery
- Mechanical aids to help overcome impairments
- Counselling for emotional and psychological needs
- Physical, occupational, speech, and/or behavioural therapy.







Early assessment and interventions are important. The earlier the treatment commences, the better chance a child has of overcoming developmental disabilities or learning new ways to accomplish difficult tasks.

# 4A.3. Muscular Dystrophy

# 4A.3.1. What is Muscular Dystrophy?

Muscular dystrophy refers to a group of hereditary muscle diseases that result in the gradual degeneration of muscles. Most types of Muscular Dystrophies are multi-system disorders affecting heart, gastrointestinal and nervous systems, endocrine glands, skin, eyes and other organs. Breathing problems due to chest infections are also common.

Muscular dystrophy is a genetic disorder. It is caused by incorrect or missing genetic information that prevents the body from building and maintaining healthy muscles. It gradually weakens the body's muscles.

It affects the ability to do things like walking, sitting upright, breathing comfortably and in the movement of limbs. The growing weakness may lead to several health complications an affect organ systems progressively. Muscular dystrophy may affect the muscles to varying degrees. Muscular Dystrophy might be present at birth else manifest later in childhood or adulthood. Muscular Dystrophy can be passed down genetically and in certain cases, students might have affected sibling, the parent or another relative. At other times this disorder is the result of spontaneous genetic mutation, abnormal immune response or some unknown cause.



# 4A.3.2. Recognising Muscular Dystrophy in a Child

Many children with muscular dystrophy might exhibit a normal growth and development pattern upto 2 or 3 years though the disorder leads to degeneration of muscles as the child gets older. With time common symptoms begin to appear, a child who has Muscular Dystro- phy may start to stumble, waddle and find difficulty in going up and walking on his/her toes. A child may start having difficulty while getting up from a sitting position or in pushing things like a tricycle. By the time a child reaches teenage years, he/she may need to use a wheelchair.

The prognosis for children with Muscular Dystrophy varies according to the type and progression of



the disorder. Some cases may progress very slowly, while others advance rather quickly- make muscles weaker which results in a loss of normal body functions especially in their ability to walk.

Such children often develop enlarged calf muscles as muscle tissue is destroyed and replaced by fat.

Muscular Dystrophy is progressive in nature, and typically results in muscle weakness and fatigue, among several other symptoms. Children find it difficult to keep up with physical and educational demands due to muscle weakness and fatigue, but the appropriate accommodations can help compensate it.

The secondary effects of muscle deterioration may lead to heart and respiratory complications that can often cause death. During the winter season the increased susceptibility to respiratory infections may cause students to miss many days of school. Like other students, children with neuromuscular diseases show intellectual abilities from below average to higher-than-average intelligence range. However, a child affected by muscular dystrophy may find many school activities tiring such as writing as well as moving about in classroom and school.

Although Muscular Dystrophy might bring intellectual disabilities in certain children, this may affect in learning languages or mathematics-based concepts. Unlike muscle weakness in Muscular Dystrophy, cognitive effects do not worsen over time. Students benefit from appropriate accommodations for locomotor and multiple disabilities and sometimes learning disabilities. A class teacher can decide what type of accommodations are best suited for the child with Muscular Dystrophy after consulting with the resource teacher and facilitating a thorough medical examination of the child.

Throughout their educational careers, most children with Muscular Dystrophy can be placed in general education and some with supports. A child with neuromuscular diseases may need an I.E.P Individualized Education Program) to help him participate in classroom teaching.



# 4A.4. Multiple Disabilities

# 4A.4.1. What is Multiple Disability?

Multiple disabilities refer to a combination of two or more disabilities. Multiple disabilities generally involves the student having an intellectual disability in addition to one or more of the following disabilities: deaf or hard of hearing, visual disability, physical disability or a severe social or emotional disability.

Some instances of multiple disabilities are:

- Deaf-blind- Visually Impaired + hearing impaired
- impaired + hearing impaired + mental retardation
- Visually impaired + intellectually impaired
- Cerebral palsy + intellectually impaired + visual/hearing/speech problems

The combination of disabilities and the degree of severity is different in each child. The time at which the disability occurs in a child, which is known as the 'age of onset', may also range from birth through the developmental period. Sometimes children are born with one disability but acquire second or third disabling conditions during their childhood. The characteristics and the needs of children depend on the nature and combination of the disabilities, the age of onset and the opportunities that are available to a child in his/her environment. Every child with Multiple Disability is individual as well and hence needs a comprehensive assessment followed by adequate interventions and a barrier free environment before start school life.

# 4A.4.2. Recognising a Child Having Multiple Disabilities

There are certain things that children with muscular dystrophy have in common.

- Combination of two or more disabilities
- All-round development of the child is affected
- Communication with the world around is most severely affected due to visual and hearing difficulties.
- Ability to move around and interact in neighbouring environment is restricted due to mobility and orientation problems.
- Need of regular help in simple day-to-day activities such as wearing shirt, opening door, finding chair to sit down and so on.
- Lack of curiosity and emotional attachment
- Being able to learn in small steps with a lot of practice and repetition
- A structured educational /rehabilitation programme helps in their training.



# 4A.4.3. Behavior of a Child with Multiple Disabilities

Depending on the combination and severity of disabilities, a child with multiple disabilities might show emotional disturbances such as:

- Disruptive to classroom activity or any other activity.
- Impulsive.
- Inattentive, distractible.
- Appears pre-occupied.
- Extreme resistance to changes (especially transition from familiar to the unfamiliar environment).
- Low self-esteem.
- Inability to work in groups.
- Engages in self-injuries
- Has no regard for personal space and belongings
- Persistently tries to manipulate situations

SUCCESS STORY OF A TEACHER: Laxmi Bala, Special Educator/Teacher of Nindoora Block, Barabanki shared her experience of teaching a child with locomotor disability and the improvements that have been seen after specific interventions. Sarita, a student of primary School Mulaniya, daughter of Ramesh having Multiple Disability had been admitted to school, but she would either remain silent or cry frequently. she would not cooperate with her classmates. Sarita neither spoke a single word, nor could she do movements at all. With proper goals and plans and with the help of Laxmi Bala, she has changed a lot and now shows signs of marked improvement. After continuous efforts of her class teacher and Special Educator Laxmi Bala, she now smiles all the time and tries to talk to everyone. Sarita hsa now even learnt to speak due to regular speech exercises. Laxmi Bala also taughtta physiotherapy exercises to Sarita's parents that made it possible for Sarita to do movements. She has now learnt to do many types of movements- she can now pick things and even eats by herself because of the training given by Laxmi Bala. Sarita now comes regularly to school.

Her parents are very happy that Sarita attends regular school like all other children and her life has changed for the better as she has been promoted to class 4 this year. Laxmi Bala says that children with disabilities need affection and care and proper guidance in school and classroom which can in turn, bring change in the mindsets of people towards disability.



# 4A.4.4. Specific Recommendations for a Child with Locomotor Disabilities in an Inclusive School and Classroom

- Create a supportive environment sensitize other students towards the specific needs of the child
- Be aware of the exact type of Locomotor Disability in the child and plan lessons and manage class accordingly- For a child with impairment of lower limbs make appropriate seating arrangements in the
- · Classroom.
- For a child with impairment to hands, plan activities alternate to writing such as puzzle-solving, sorting,
- threading, or building blocks.
- Use a multi-sensory approach to explain concepts involving seeing, listening, touching, smelling and tasting.
- Give extra-time for classwork and assign a scribe if required.
- Use ICT (Information and Communication Technology) whenever possible.
- Plan games and rhymes for activity classes that require rhythm and movement.
- Help in the development of the Individualized Education Program (I.E.P) if the child requires one, follow it through and suggest changes when required. Encourage peer bonding and ensure that the child is included in class responsibilities.







# 4A.5. Visual Impairment ← 4A.5.1. What is Visual Impairment?

Visual Impairment is a decrease in the ability to see beyond an extent that causes problems not fixable by usual means, such as glasses.

Children with vision impairment may also experience disability if they do not have sufficient access to supports and services such as glasses or lenses, and face barriers such as discrimination or inaccessible buildings or transport.



## **4A.5.2.** Types of Vision Impairments

Vision loss is a general term used in reports to describe all levels of vision impairment -blindness and low vision, in one eye: mono or both eyes- bilateral.

Vision impairment maybe of two types:





Myopia (Short Sightedness)

Hypermetropia (Far Sightedness)

On the basis of their onset in a child, visual impairments can be divided into two categories-Congenital or Adventitious.

Congenital Visual Impairment is a condition where the loss of vision is present from the time of birth. Adventitious Visual Impairment refers to a condition when the loss of vision occurs after birth due to some illness, accident etc.

## 4A.5.3. Why is it necessary to distinguish between Congenital Visual Impairment and Adventitious Visual Impairment?

This distinction is extremely important in the context of a visually impaired child's education. The age and level of development of the children before the onset of visual impairment makes a huge difference in their ability to learn new skills and concepts.

Children with congenital blindness may find difficulty in acquiring concepts, while students with adventitious blindness may be able to benefit from the earlier vision and the exposure they would had to visual experiences.

In case of adventitious blindness, whether the child was visually impaired before 5 years of age or after 5 years of age is the main factor that affects a child's ability to learn new skills and concepts, because even if the child had vision before 5 years of age, she/he would not remember things seen.



### 4A.5.4. Residual Vision or Functional Vision

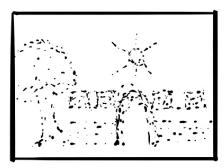
Residual Vision or Functional Vision refers to the way in which an individual uses the vision they have. With proper training this visual efficiency can be increased and can be used for identifying object and people; and also, for orientation and mobility, concept formation and sometimes for reading and writing. Here students with low vision are encouraged for optimal use of their eyes. Vision is not diminished by use.

Residual vision could be both distant and near vision.

### 4A.5.5. Understanding a Child with Visual Impairment



A: What a normal Child Sees



B: What a child with low vision sees



C: What a child with total vision loss sees

All children learn by correlating the sensory information their mind has processed through the senses of seeing, hearing, smelling, touching and tasting. Out of all these, seeing plays a huge part in learning. A child learns most by observing though eyes. A child with visual impairment, low vision or absence of vision is unable to use this faculty for learning. Does the process of learning stop in this case? No it does not! The child still learns, but learns through different means- by touching and feeling, listening, tasting and smelling. While all children use these senses to learn, in case of a child with visual impairment, these senses play a far greater role in learning.

Understanding the process of 'concept formation' for a child with visual impairment and building upon it holds the key for teaching the child successfully in the classroom and preparing her/him for future.



CASE STUDY: Jibrail is an 8 year old child with low VISION Impairment who came in contact of SPARC-India during community and DPO meeting intervention under Inclusive Education Project. Jibrail, a resident of Ghunghter, Son of Mohd ismail was Found to be an ignored child. He was enrolled in a school but instead of attending classes he would roam around in nearby areas. SPAR-India's District team identified him as a child with lot of potential, ignored by family, society and also by the school management. for his further growth, individual education plan was developed in the school. Training was organized on Right to Education Act and inclusive Education with stakeholders and this influenced his parents in a very positive manner. Due to regular inter-action and rigorous efforts, jibrail's medical examination was ensured at District hospital Barabanki but due to some technical reason, the issuance of his disability certificate is still in process.

Through sensitization and regular meetings he has become regular at school. After intervening with his family, jibrail has now started going to "Madarsa Islamia Arabia Umar Farooque" one of the indirect school selected under Inclusive Education project. Jibrail is at present studying in class IV. Jibrail and his parents are now more attentive toward his studies. His parents are now taking care and interest in ensuring his regular attendance at school. His attention span and interaction with his peersand family memberhas now improved significantly.

### 4A5.6. Recognizing Eye Related Problems In Children

Observing a child who readily exhibits eye-related symptoms and acting upon those can greatly help the child. Early diagnosis and interventions can help in saving loss of vision or improve the usable vision of the child.

- · Eyes or eyelids are red, swollen, have pus or are watering for many days;
- Eyes look dull, cloudy or have sores
- One or both pupils look grey or white
- Frequently recurring styes
- Eyes that look crossed, move differently from each other or don't focus together
- Child does not reach for things in front of him unless they
- make sound or touch him
- Child squints, tilts head to one side or leans forward to see.
- Child shuts one eye for a visual task.
- Child gets irritated while working
- Child is unable to read letters on blackboard.
- Child hardly takes interest in brightly coloured objects, pictures or books and holds them very close to the eye.
- Child is unduly sensitive to light or has difficulty in seeing after sunset (night blindness)
- · Child is clumsy while reaching for things in front of him/her and trips while walking



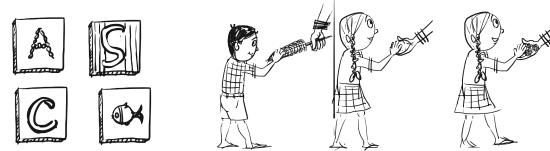
## 4A.5.7. Specific Recommendations for a Child with Visual Impairment in an Inclusive Classroom Setting

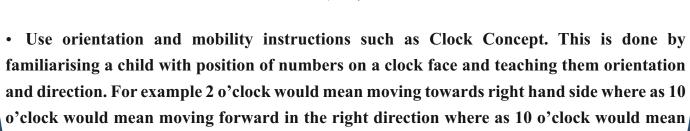


moving forward in the left direction.

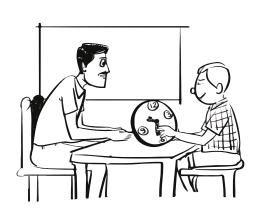


- Recognise the exact nature of visual impairment in the child, plan lessons and manage class accordingly- usually, making a child with visual impairment sit in front row of class- room and/or in close proximity to the teacher helps, so that the child can use residual vision to see comfortably. However there maybe exceptions to this in certain other kinds of visual impairments.
- Address children with visual impairment by their names during lessons so that they know they are being addressed and communicated with.
- Use multi-sensory approach as far as possible as the child either cannot use his/her vision, or can use it in a limited way. Therefore he/she learns concepts by listening, touching, smelling and tasting.





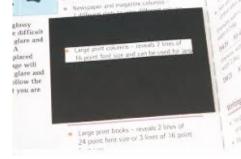


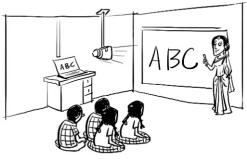


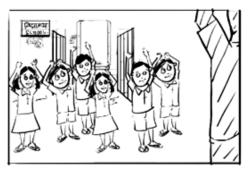


Teaching Clock concept to children with visual impairment helps them to navigate independently.

- Make Typoscope or arrange for Braille books/big fonts books/magnifying glass
- A Typoscope covers unwanted text and helps a child to read by focusing on only a few words at a time. It can be made easily by cutting ½ inch groove in 5"X8" black chart paper as shown.
- Give extra-time for classwork and assign a scribe if required.
- Use ICT(Information and Commun Give extra-time for classwork and assign a scribe if required.
- Plan games and rhymes for activity classes that require rhythm and movement Help in the development of Individualized Education Program (I.E.P) if the child requires one. Follow it through and suggest changes when required.
- Encourage peer bonding and ensure that the child is included in class responsibilities.
- Suggest them to consume plenty of Vitamin A rich food
- in diet: Green leafy vegetables such as Palak (Spinach), Methi (Fenugreek), Drumsticks, Pudina (Mint), Dhania (coriander) Beetroot leaves, Arvi leaves, onion stalk, Muli







(Radish) leaves, Tomatoes, Mango, Papaya, Pumpkin, orange, milk and milk products, eggs, fish, liver and kidneys.



## 4A.6. Hearing impairment

### 4A.6.1. What is Hearing Impairment?

Hearing impairment is a broad term used to describe partial or complete loss of sense of hearing.

If the hearing loss is partial, a child has difficulty in hearing faint or distant speeches and might use hearing aid to amplify sounds. In case of complete loss of hearing, the child may not be able to distinguish between sounds.

### 4A.6.2. Types of Hearing Impairments

Hearing loss may be present in one or both ears and maybe of the following types:

- Conductive hearing loss
- Sensorineural hearing loss
- Mixed hearing loss
- Central hearing loss

The rehabilitation, treatment or provision of aids and appliances depend upon the type of hearing loss. Based on the age of onset, hearing loss may also be categorized as pre-lingual and post-lingual.



As pre-lingual hearing loss occurs before a child learns to speak, here the effect is more severe than for one who lost hearing at a later stage in life i.e. post-lingual. If the language development was normal before the hearing loss, it means the child has learnt a lot of things on which future learning could be built upon. This edge is absent in the case of a pre-lingual deaf child.

### 4A.6.4. Residual Hearing

Residual hearing is the ability to hear certain sounds by a person who has suffered hearing loss. Some children can hear high pitch sounds, the others can hear low pitch sounds and whichever sounds they can hear becomes vital for the process of their learning.

### 4A.6.5. Understanding a Child with Hearing Impairment

Nearly 15-20 percent learning of a child takes place through hearing which is critical for speech and language development leading to communication skills. In case of children with hearing difficulty/impairment if communication is affected, language, learning and literacy are also at risk.





Often we presume that children can hear when actually they might have difficulties in hearing. Children might not tell this because they don't know what it is like to be able to hear properly! Mild hearing losses are much more common than profound hearing losses (deafness). A child with hearing impairment can be

considered as inattentive or lacking in concentration. It is to be kept in mind that some hearing problems come and go; if a child is prone to colds or recurrent ear infections then his/her hearing may also get affected.



A child with hearing impairment cannot hear at all or hear to a limited extent. Therefore speech may be unclear, distorted or have missing sounds.

For example, if he/she says 'kya' asta' or 'school' as 'koo' in Hindi it could only be understood by close relatives. Unclear speech may also mean having no or very few friends. Hearing impairment makes it difficult for the child to follow what is being said and often we mistake such children as a slow learners or intellectually disabled people, even though they have a perfectly functioning brain. A child with hearing impairment will learn more through visual clues- that is by looking at things and observing the lip movements of people. In other matters they learn like any other children: by seeing, touching, feeling, smelling and tasting.

### 4A.6.6. Recognizing Auditory Troubles in Children

Loss of hearing should not be taken as an absolute loss; it does not mean that the child cannot hear a single sound. The scale of hearing loss differs from child to child depending on the cause and nature of injury/tear in the hearing system. This description may appear simple though hearing loss in a developing child is a serious, complex and multifaceted issue.

As a teacher, you will come across children in your classroom who might show clear signs of hearing loss and in some cases it might not be that apparent but their behaviour would indicate the hindrance they are facing during the process of learning.

Given below is a checklist that provides further information that can help you confirm or clear your doubts whether a child has difficulty in hearing Poor attention: If a student does not pay attention in class it is possible that he or she cannot hear what is being said or the sounds the child hears may be distorted. Due to these reasons the child either tunes out what the teacher says or does not make an effort to listen

or attend. Very rarely a student may be exceptionally attentive by playing very close attention in an attempt to determine what is being said.



- Poor speech development: Immature, unusual or distorted speech may be due to hear ing loss. Or the child talks in a very loud or soft voice.
- Difficulty in following instructions: A child who has unusual difficulty in following oral instruction can have a possible hearing impairment.
- The child may respond better to tasks assigned when the teacher is relatively close to him and her, or to written tasks rather than ones that require an oral response.
- The student may turn or cock head to one side to hear better.
- Hearing problems can cause the child to watch what other students are doing before starting his/her work or looking at classmates or teachers for clues.
- A child may have difficulty in a hearing text read by others or the child may request his peers or teachers to speak louder.
- Sometimes the child may give an inappropriate answer to a question asked or fail to answer.
- Children with a hearing loss prefer to work in small groups, sit in a relatively quiet area of the classroom or in the front row.
- The student may be shy or withdrawn or appear to be stubborn and disobedient as a reaction to his hearing loss.
- The student may be reluctant to participate in oral activities, may fail to laugh at jokes or understand humour.
- The student may tend to isolate herself/ himself from social activities.
- The student may interpret facial expressions, body movements and contextual information rather than spoken language and thus sometimes make false conclusions.
- The student may complain of frequent earaches, colds, sore throat or recurrent tonsillitis.
- The student may have some discharge from the ears.

CASE STUDY: Ayan is an 8 year old child. He is intelligent and loves to eat all dishes that his mother cooks. he is shy by nature and avoids mixing with someone new, though he is a friendly child who loves to play with other children of his age group He usually welcomes known people with a broad smile on his face, He expresses his happiness by smiling, shows anger by frowning and cries when in distress just like other children.

ayan studies in class 2 and suffers from hearing and speech impairment. He resides in a small village of Ghungter in Nindura block of District Barabanki. When he reached the age to join school, the government primary school of Ghunghter village did not want to admit him. It was only through the continuous efforts of SPARC-India's Inclusive Education project staff members,

the school admitted him. The trouble was not over yet. Initially when he was enrolled in school, he was shy and faced problems in interacting and playing with children of his age group. As when he had joined school other children would address him as Baudam', (did-witted) 'Gungwa' (mute), and tease him. Due of this, Ayan Developed the tendency to bunk his school.

After SPARC-India's Inclusive Education Project interventions, regular visits to school, his home counselling of his parents and working closely with him, his teachers started to motivate his in positive manner

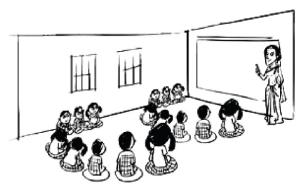
For his further participation in class, individual education plan(I.E.P) was developed in the school. Training has been organized on RTE and IE issues with stakeholders. This influenced his parents in a very positive manner. Now the school authorities feel happy to support IE staff and carefully listening to their suggestions. The school is also appreciates the inclusive environment that is now becoming a part of their school culture.



If there is reason to believe that a child has hearing impairment, a more formal assessment should be provide

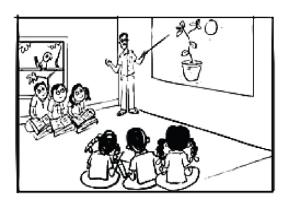
# 4A.6.7. Specific Recommendations for a Child with Hearing Impairment in an Inclusive Classroom Setting

• Face the child all the time when you are speaking. Ensure that the child with hearing impairment is seated in a way so he/she can observe the lip movements of the teacher as well classmate. This helps the child in understanding the words in their context.



Face the Child all the time when you are speaking

- Do not cover you mouth with your hand while talking.
- Try to speak clearly, not too slowly or too loudly
- Use short, simple and clear sentences.
- Eye contact is very Important



Do not cover your mouth with your hand while talking.



Eye contact is very important.

- Use adequate facial expression as this gives more clues than a passive face.
- Do not get annoyed is you are watched very carefully.
- They can eventually get used to the way you speak. No need to shout.
- Use multi-sensory approach and understand that the child either is not able to hear, or is hard of hearing, therefore learns concepts by seeing touching, feeling, Smelling and tasting



- Drawing is also an effective means of communication.
- Use role play or games for expressing feelings and concepts



Role play and games help express feelings and understand concepts.

- If the child has a vocal language, ask her to repeat what he/she has understood .
- Give extra-time for classwork and assign a scribe if required.
- Help in the development of the Individualized Education Program(I.E.P) if the child child requires one, follow it through and suggest changes when required.
- Encourage peer bonding and ensure that the child is included in class room responsibilities.

**Success Story of a Teacher:** This is a success story of Poonam Awasthi, Spe cial Educator /IT teacher of Khairabad Block, Sitapur whose specific interventions made a huge difference in the life of Umesh, son of Ram Shankar who studies in Upper Primary School Binaura. When she met Umesh, he was in class 6 and now he studies in class 8. Umesh is Hearing Impaired.

He is a sincere child but was initially very irregular at school due to long distance from his village. But gradually, after Poonam's intervention he became regular at school and now he enjoys coming to school. Poonam taught him to lip-read and this improved his cognition to great degree. He now understands sign language and tries to speak clearly in class. She taught him to recite poems and now he tries to do so himself. Studies are so important for Umesh now, that he comes riding a bicycle on his own, specially to attend school.

Poonam says that a greater support from his family, could help Umesh overcome his disability to a larger extent. Committed Special Educators like Poonam are a blessing for children with disabilities in villages in the near absence of awareness and facilities. However with large number of schools being assigned over a vast geographical area to each Special Educator like Poonam, frequency of interaction with each child who needs interventions, tends to suffer.



### 4B. Cognitive & Intellectual Disabilities

Our villages have agrarian economies where more emphasis is laid on physical work than nurturing mental abilities. In such environments, parents may or may not give much importance to the education of their children. In addition, adverse economic conditions also negatively impact the development and growth of children.

These factors may sometimes jointly cause a delay in language and cognition skills among children. The period of 0-6 years is crucial for the development of a child's cognitive, motor (fine & gross) and language skills as well as social and emotional skills. The Draft National Education Policy (For Hindi and English versions, see References and Citations) lays emphasis on ECCEEarly Childhood and Care for this reason.

Before we proceed further, it is important to differentiate between a child who is unable to comprehend things being taught in the classroom and not able perform as per expectations due to his environment; and a child who has needs that are related to his/her brain impairment.

This section covers cognitive and intellectual disabilities.

### 4B. What are Cognitive and Intellectual Disabilities?

Cognitive ability means awareness and the ability to learn things. Cognitive disability causes hindrance in learning process of a child due to biological or physiological reasons. It does not depend on environmental factors. Specific learning disabilities and autism are cognitive disabilities. Intellectual ability means the ability to think and apply knowledge in a new environment and situation. Intellectual disability leads to limitations in intellectual functioning or IQ or Intelligence Quotient (reasoning, learning and problem solving) and in adaptive behaviour including social and practical skills that are required in everyday life. Intellectual disabilities can be caused by damage or incomplete development of the brain. Intellectual disability was earlier known as mental retardation. Cognitive disabilities like learning disability, autism and intellectual disabilities are all neurodevelopmental disabilities.

### 4B.1 What is Learning Disability?

A specific learning disability or learning disability is a condition of the brain that causes difficulties in comprehending or processing information- hinder learning basic skills such as reading, writing, spelling and/or math. Learning disability may also interfere with higher level skills such as attention, abstract

reasoning, organization, time planning and long or short term memory.

These children may also have trouble getting along with their peers so it is important to clarify:



- **a.** Learning disabilities consist of many types of learning challenges that are not caused by low intelligence or problems with hearing or vision. However a learning disability may occur at the same time with other disabilities such as sensory impairment, mental retardation, social and emotional disturbances.
- b. Children with learning disabilities are as smart as or even smarter than their peers. Learning disabilities are generally misunderstood as being hidden disabilities. As these disabilities are not apparent, they may go undetected. In a child, they may be mistaken as intentional', 'noncooperative' or 'lazy' behaviour. Children with learning disabilities have a difficult time in school if taught through conventional methods particularly if they are the first generation school goers. With no preschool training in a family that has little or no literacy, the role of the school and class teacher becomes even more significant. The teacher may assess the child and/ or consult experts. In case of confirmation of learning disability in a child, make his/her parents aware about the child's problem.

In the western countries the awareness about learning disabilities came nearly fifty years ago and in India only in the last twenty years. Over the last two decades with the identification of children with learning disabilities in English and vernacular mediums schools, there has been increase in awareness among teachers, parents, educational institutions, government and private institutions and non-government organizations. However, country wide data is still lack-ing on children and persons with learning disabilities as this category was not included in the census of 2011.

### **4B.1.1 Types of Learning Disabilities**

Four most commonly occurring specific learning disabilities are as follows:

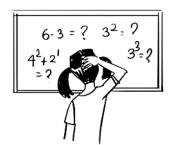
Four most commonly occuring specific learning disabilities are as follows:



Dyslexia: Difficulty in reading



Dysgraphia: Difficulty in writing



Dyscalculia: Difficulty in numbers and mathematical concepts



Dyspraxia: Difficulty in coordination and movement



### 4B.1.2 Recognising Children with Specific Learning Disabilities

As learning disabilities fall in the domain of cognitive disability, they lack evident physical signs. They are demonstrated at school, in the classroom environment. In villages children are hardly exposed to the pre-schooling environment. It is usually a teacher who notices certain specific lags in the areas of reading, writing, spelling, talking or doing calculations together with short attention span, poor communication skills or a disruptive behaviour.

The students in a class have different behaviours, capabilities and performance levels. Some excel, most of them perform alright and few students lag behind. Similarly children with learning disabilities also make a heterogeneous group. Some children with learning disabilities might perform very well despite the challenges while others struggle to cope with daily learning. However learning disabilities may vary from one another. It is important that teachers know characteristics and behavioural patterns that are common to most learning disabilities so that they can help in identification, diagnosis and planning of interventions. Understanding these characteristics is pivotal for working with Children with learning disabilities. After learning style and behavioural implications are ascertained, only then a teacher can start working on strategies for improving their academic performance, social inclusion and self esteem.

### 4B 1.3 General Behaviour of Children with Learning Disabilities:

- · Restless, cannot sit or stand still; generally, a trouble maker or clown of class
- Short attention span
- Poor reading and/or writing skills.
- Poor memory
- Poor hand-eye coordination
- Disorganized with personal belongings such as school bag, bottle, stationary, shoes etc.
- · Appears to be forgetful in class but remembers events from long ago.
- Difficult to discipline
- · Finds difficult to adjust to changes; for example change of class teacher
- Difficulty in telling time and distinguishing right from left.
- Reverses letter and/or numbers even after reaching 7 years of ag
- Delayed speech development or immature speech
- · Moody and easily distracted
- Low on self-Esteem
- Makes excuses for reading or writing assignments

In case a child shows many of the above behaviours, they could be having one of the 4 common types of learning disabilities- Dyslexia, Dysgraphia, Dyscalculia or Dyspraxia. Specific behaviour is associated with each of these, though sometimes they may occur concurrently.



### **Dyslexia**

Appears intelligent and articulate but faces problem in reading, writing and spelling in class. Maybe good at drawing.

Misses out, adds, substitutes or reverses letters in a word- e.g b for d, p for q even after 7 years of age.

- Skips letters or words while reading.
- Cannot recognize a whole object if part is shown.
- Unable to focus on a specific word in a book or on blackboard.
- Confuses over/under/left/right.
- Untidy written work, unusual pencil grip.
- Unable to blend letters into a word. Reads cat as c-a-t. But while talking, can say cat.
- · Complains of head/stomach ache if asked to read.
- Seems to have vision problem but eye test results are normal.



Problem with handwriting and drawing though spelling maybe normal.

Misses out, adds, substitutes or reverses letters in a word- e.g b for d, p for q.

- Unclear handwriting.
- Unable to maintain left to right orientation.
- Unable to maintain lines and margins in the ebook.
- Unable to maintain rows and columns in thmetic.
- Untidy written work, unusual pencil grip.
- The trouble with sentence structure and grammar while writing but not while talking.
- Can understand a topic, answers questions in class but cannot write correctly.

### Dyspraxia

Motor coordination is much below the expected age and intelligence.



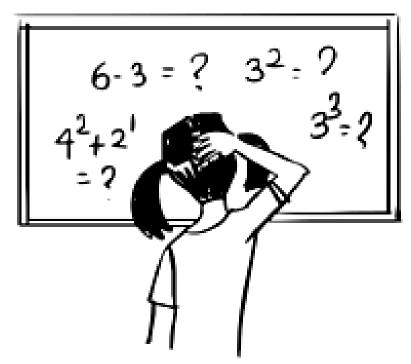






- · Motor difficulties interfere with self care and school activities.
- · Falls and trips, bumps into things and people.
- Unorganized, loses books and other belongings frequently.
- Dishevelled appearance.
- Difficulty in standing for a long duration due to weak muscle tone.
- Difficulty in concentrating.
- Difficulty in tying shoe-laces.
- Is slow to develop left- or right-hand dominance.
- Unusual pencil grip.

### **Dyscalculia**



- Difficulty with numbers.
- · Confuses concepts such as more-less, before- after, yesterday-to-day-tomorrow.
- Confuses mathematical signs such as -/+, </> etc.
- Can say the tables but cannot use them when required.
- Identifies numbers in a sequences but not individually.
- Reverses numbers- 6 for 9, 12 for 21, 24 for 42 etc.
- Unable to understand carry forward in addition and borrowing in subtraction.
- Unable to understand patterns and sequences.
- Can compute on paper but unable to apply in a real situation.
- Difficulty in telling time from analogue or digital clock.



# **4B.1.4.** Specific Recommendations for a Child with Learning Disabilities in an Inclusive Classroom Setting



A child with learning disability is low on self-steem as he/she struggles to keep pace with the class work on daily basis. He/she may need patience and positive reinforce-ment more than other children. Always acknowledge the smallest of their achievements and appreciate them in front of their peers. For e.g.: This is such a beautiful drawing you have made.

- It is important not to call the child 'stupid' or 'lazy'. The child is aware of his/ her problem and will feel discouraged.
- · Break down each chapter into small chunks.
- · Make sure to sum up things done in the classroom and look for responses from the child.
- Allow the child to have frequent breaks to help him/her focus on things.
- Focus on the child's positive aspects and nurture the strengths.
- Explain a concept using concrete objects and then move to abstract.
- Use multi-sensory approach to teach a concept.
- Break down each topic into small parts to make the child understand.
- Give extra time to the child to complete his/her assignments. Do not rush them.
- Treat each child as an individual and not compare with other children.
- Help in developing Individualized Education Program (I.E.P) if the child requires, follow it and suggest changes whenever required.
- Encourage peer bonding and ensure that the child is included in classroom responsibilities.



### 4B.2.Autism

### 4B.2.1. What is Autism?

Autism is a disorder in which the development milestones are achieved in irregular manner compared to children who do not have autism. The areas most affected by autism are the ability to communicate, connect with other people, and play. These areas are often take time to develop and they develop in unusual ways. Many children also have different ways of 'sensing' things. Some of them may not like being touched gently but prefer a firm hold. Others may find difficult to brush their teeth or having a haircut. Some will have extreme likes and dislikes in their diet. Many will have difficulty in tolerating some sounds. These are just a few examples.

Because of difficulty in understanding people and in understanding how they are supposed to behave, children with autism often show unusual behaviours. As a result they are often mistaken to be 'disobedient', 'bad' as well as sometimes believed to be possessed by spirits'. Contrary to what many believe, autism is one of the most common development related disorders. With an increase in understanding and awareness levels, professionals are begin-ning to understand that few children diagnosed with mental retardation, hyperactivity, or as badlybehaved may actually have autism.

## 4B.2.2. Understanding Behaviour of a Child with Autism

The signs of autism may be there since birth though in few children they appear later in life. They may develop speech, play and interact, though not as much as other children of their age, and when they are around 18 months of age they stop doing these things because of autism, not due to the fault of parents.

It is important to remember that a child with autism can be completely different from another child with autism. So one child may not speak at all, be very withdrawn, and acquire a few self-help skills, though another child may not speak but be completely able to take care of his own needs, and a third may speak, attend the local school, but have great difficulties in inter-acting with other children. That is why autism is called a spectrum disorder because children can be as different from each other as the colours in the rainbow.

### 4B.2.3. Recognising Children with Autism

Children with autism are like children without autism. It is often hard to tell if a young child has autism or not. However, from the early years there are many signs that indicate the possibility of a child having autism. If a child does not smile back when you smile at him by four or five months, not show interest in expressions on peoples' faces, not coo or babble by nine months and by one year does not start using gestures to accomplish needs like reaching out, pointing, showing and waving; then the child has possibility of having autism. If a 16-month old child has not started talking, or has stopped babbling or lost speech and does not try for meeting its needs through gestures, eye gaze, pointing, etc, that too shows possibility of having autism.



Does the child play simple games like peek-a-boo? Whenever there is an unexpected and interesting sight, does the child point with index finger, or tries to draw attention to it? Does the child take a toy phone and pretend to 'talk', take a cup and pretend to 'drink' from it, or pre-tend to 'feed' a doll? Does the child enjoy playing with other children of the same age, and tell them about a favourite toy or an interesting experience? When older does the child like to play hide and seek? Observe if he/she can 'hide'.

Following is a list of a few characteristics to look out for:

- Does not respond when called or spoken to
- May not look at the eyes when speaking or being spoken to, prefer to look away
- Some children may not speak at all. Others may have a few words but not use them to communicate.
- May appear to be deaf and not turn towards the person who calls their name, but responds to sounds of things he/she likes-like the rustling of a sweet wrapper
- May not initiate or sustain conversations
- May echo words or phrases. May responds to a question with a question. If the child appears thirsty and the teacher asks"Do you want your bottle?" he/she may reiterate "Do you want your bottle?" instead of saying "yes"
- May not use or understand the use of gestures like raising the shoulders to indicate 'don't
  - know' nodding 'yes' shaking the head to indicate 'no' pointing to show a want or an interest, waving
- May have difficulty in modulating voice, such as whispering
- May play alone or prefer to play with younger or older children
- May not smile back
- May not share interest in something (eg an exciting new toy) with others, by showing braining o pointing out

# 4B.2.4. Is Autism same as Intellectual Impairment (Previously Mental Retardation)?

Autism is very different from intellectual impairment (previously mental retardation). It is possible that some people with autism might also have mental retardation as well. Due to limited understanding of the spectrum of cases in autism, many people are wrongly diagnosed as mentally retarded. Autism does not have an impact on intelligence of a person. It impacts the learning ability of a person. A person with autism can learn if they are taught using proper techniques – like simple adaptations to the existing classroom techniques.

# 4B.2.5. Understanding and Communicating with a Child who has Autism

In helping the child with autism learn we need to remember that each child has his/ her individual strengths and shortcomings and each person with autism has a unique personality and shows combination of characteristics. Thus, two children with the same diagnosis can act differently and show varying skills though they can be taught using same techniques.

- - Children with autism learn in ways that are different from non-autistic children. They learn how to learn.' In order to be successfully included in class room environment, they can benefit from intensive pre-school intervention and learn important skills like sitting, staying in their seats, being attentive to teacher (not necessarily by looking at), following instructions, and so on.
  - Autism is a condition that poses challenge to social communication. Children with autism are often not consciously aware that they can get things done by speaking: they can get attention, or a toy, or food just by speaking. To help them understand that, we have to model speech in a very definitive manner. So when a child holds an adult's hand and places it on a pitcher when feeling thirsty, the adult will have to say "Water" before handing a glass of water to the child. The child is then able to make connection that when
  - the sound 'water' is heard, I then get water. Most early learners with autism learn through this practice so language used has to be very simple, precise, and substantial.
  - Children who do not have autism learn by observing others and by imitating what others do. All of us have learnt to comb hair, fold household items, wipe clean blackboard just by watching do it. Most children with autism do not learn this way. So in the early years, instructions need to be followed consistently by the child being taken through steps of this activity. The request "Wipe the blackboard", will have to be immediately followed by the teacher taking the child's hand and cleaning the board hand-on-hand. In time the child will make the connection and understand the instruction "Wipe the blackboard".
  - Many vocal children might have echolalia where they repeat words, phrases, or questions asked to them. Echolalia should not to be discouraged. Instead echolalia should be used in language development.
  - A good teacher will not use sarcasm with students because children with autism have a literal understanding of communication. Sarcasm might be confusing for them as they interpret what being said literally.



- Autistic children like other children show good rote memory while reciting alphabets, numbers, reading words and passages from early primers. The difference is they may not have the concept of numbers or know the meaning of the word they are reading. For instance, teaching of numbers has to be preceded by teaching small and big, full and empty, first and last, short and tall, all of which has to NOT start with a book but with things in the world around them. Full and empty can be taught using identical bottles, cups, boxes, where one is filled with water, sand, soil, stones, dals, etc and the matching container is empty. Such concrete methods need to be used for teaching other concepts as well
- Teaching numbers cannot start with a book and chalkboard exercise. It too needs to involve usage of objects bottle caps, blocks, leaves, etc for learning the concept of numbers. Only then move to book with instructions like 'colour two balloons', 'colour the plate with four nuts', etc.
- Children with autism like being around other children just like other children. However, they have difficulty in understanding social rules that non-autistic children know intuitively. They tend to isolate themselves from people around them. The classroom environment needs to be positively reinforced with fun elements, and the child should not be judged for its mistakes.
- Teach the autistic child to actively take turns and to share through definitive word by word instructions. While teaching numbers for instance, tell 'Give one sweet to Meeta and one sweet to Ankit.'
- Any form of communication can be difficult for autistic children. When the child responds to an instruction or to a question, grant time to process information. Avoid the temptation of jumping in and giving the response yourself, assuming the child will not respond.
- Sometimes breaking down instructions helps. A child who might continue to play with his/her toy when the class has been told to go stand in a line:
- 1. Maya, put your toy down on the desk' (when she does so, say)
- 2. 'Stand' (when she does so, say)
- 3. 'Come' here (pointing to the queue)
- Teaching needs to build the scope of success in any task. Success leads to a greater desire of learning where as repeated failure will make the child lose interest in learning.
- With good teaching practices, as children with autism pass through early stages of learning, they eventually 'learn how to learn' like non-autistics. Once they reach this stage then teaching can become more complex.



- Finally teaching has to be enjoyable and respectful. The way a child is treated determines the manner in which he/she learns. With good practice incorporating fun, energy, and excitement all children learn better.
- Help in development of Individualized Education Program (I.E.P), follow it through and suggest changes wherever required.

# **4B.3. Intellectual Disability 4B.3.1. What is Intellectual Disability?**

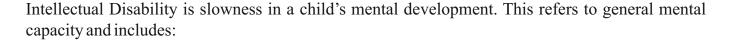
Intellectual disability, earlier known as mental retardation, is different from mental illness. Intellectual disability is a life-long condition and not a disease. It originates before attaining

eighteen years of age. A child with intellectual disability will have less mental ability than other children of his/her age. He might have difficulty in learning at school, show lack of understand-ing, communicating with people and

adjusting his/her behaviour in various situations of day-today life. He may also have difficulty in taking care of his personal needs such as eating, dressing up or going to toilets. Children with intellectual disability are able to learn new skills but they learn at slower pace.

Intellectual disability may result from damage to brain or from its incomplete development.

Intellectual disability in a child cannot be cured as it is not an illness but **its early identification consolidated** with early intervention can help reduce the impact of this disability.



**Conceptual skills**—language and literacy, communication, reasoning, money, time, and number concepts; and self-direction.

**Social skills**—interpersonal skills, social responsibility, self-esteem, gullibility, wariness, social problem solving, and the ability to follow rules/obey laws and to avoid being victimized.

**Practical skills**—activities of daily living (personal care), occupational skills, healthcare, travel/transportation, schedules/routines, safety, use of money, use of the telephone.

Standardized tests also help in determining limitations in adaptive behaviour.



### **Additional Considerations**

In defining and assessing intellectual disability, the AAIDD (American Association on Intellectual and Developmental Disabilities) stresses on additional factors also being taken into account like community environment of individual's peers and the culture he/she comes from.

Professionals should also take in account factors like linguistic diversity and cultural differences as they determine ways in which people communicate, move or behave.

Finally, in assessments it also needs be assumed that limitations/ shortcomings in individuals often coexist with strengths. A person's level of functioning in life will improve if appropriate personalized supports are sustained over a period.

http://aaidd.org/intellectual-disability/definition accessed on 24<sup>th</sup> July 2019

Research has time and again established a correlation between poverty and intellectual disability. Many of our students in the schools in the village come from weak economic background and hence show signs of deficiency of proper nutrition as well as lack of awareness about health and hygiene. Effective mplementation of government initiatives of providing nutritional supplements, mid-may meals and regular health check-ups can make significant difference in not just the child's physical appearance but also in his/her mental health.

### 4B.3.2. Differentiating between Intellectual Disability and Mental Illness

As teachers and responsible members of our community, we need to know the correct nature of the disabilities that might be present in children.

Intellectual disability, previously known as mental retardation is different from mental illness. Intellectual disability is a condition and it cannot be cured. But a child with intellectual disability can be helped to learn lots of things and many new skills.

Mental Illness on the other hand is a disease that can develop at any age even in people who have normal physical and mental abilities. It can be cured with proper diagnosis and treatment.



### 4B.3.3. Understanding a Child with Intellectual Disability

Intellectual disability in a child may be mild, moderate or severe. Children with severe intellectual disabilities are likely to have additional disabilities or disorders like cerebral palsy, epilep-sy, vision impairment, hearing impairment, speech and language impairment.

The physical and mental challenges faced by a child influence the way the child feels about himself/herself and this further has impact on their learning processes. A child with intellectual disabilities (and particularly one with other associated disabilities) faces many challenges on daily basis and has a low self-esteem. For learning to transpire in children with intellectual disabilities, it is more decisive that we show concern by treating them respectfully and at par with other children. Once this happens, the child becomes even more capable of learning from the environment, in his/her class and from peers.

### 4B.3.4. Recognising a Child with Intellectual Disability

- There may be a physical delay in development like delay in head control or in sitting or in crawling also delays in self-care skills like toilet control etc.
- Some have difficulty in sucking, chewing or eating. Or in using their hands or moving from place to place.
- They respond slowly to what is said to them or to things occurring in their surroundings. Many times they do not respond at all.
- They cannot understand easily the things they see, hear, touch, smell or taste.
- They may find difficulty in clearly expressing their thoughts, needs and feelings.
- They may find it difficult to learn new and different things. They are slow learners.
- They have difficulty in making even simple decisions.
- They may not be able to pay attention to one person or one activity for over a period of time. Some of them also have difficulty in changing from one activity to another.
- Some of them can find it difficult to control their feelings. They may throw things, injure themselves or others.
- Some of them can remember only for a short duration of time the things they have learnt and/or old.



**CASE STUDY:** Rohit Rawat is a active 6 year old boy, residing in Bhauli. His father works as daily wage labour. His grandmother is quite active for her age. Afer his medical assessment, Rohit was identified as a child with intellectual impairment. Previously to his enrolment in school he would roam around aimlessly. When Rohit was found through baseline survey, he was roaming shirtless in his village. Afer SPARC-India's Inclusive Education Program interventon, Rohit was enrolled in Class 1 in the Primary School Bhauli in block Bakshi Ka Talaab, Lucknow. The school principal pays good atenton to him and because of this Rohit makes effort to atend his school each day. The assistant teacher also admires him which makes him feel privileged and special. Sensitzaton and regular meetings in the school and community seem to have made a good impact. His grandmother says that Rohit doesn't want his teachers to be upset or angry with him. Rohit's parents also have observed several positive changes in him. He engages with his peers in many activities and likes to be the monitor of classroom. Teachers are very sensitive about him and pro-active in many ways. They make sure that he comes daily to school, gets proper atenton and partcipates in all actvites. They believe that with proper individual educaton plan and contnuous interventon he will learn things with tme. His Individualised Educaton Plan (1.E.P) has been developed which includes thorough and regular assessment, improving on social, behavioural, personal and life skills. Teachers are also developing an academic plan as well as a development plan for Rohit.

## 4.B.3.5 Specific Recommendations for a Child with Intellectual Disabilittesi in an Incusive Classroom

• A child with an intellectual disability has low self-esteem as he/she is struggling to keep pace with classwork on a daily basis. He/she needs more patience and positive reinforcement than other children. Always acknowledge the smallest of achievements and appreciate the child for it in front of peers. For e.g.: I really like the way you are trying to colour this drawing.





- · Break down each chapter into small chunks.
- Repeat each chunk 3-4 times before moving on to the next chunk.
- Be sure to sum up what was done in the class by seeking responses from the child.
- · Give extra-time for classwork and do not pressurize him/her to hurry up.
- · Assign a buddy. The child is likely to learn quicker if assigned a peer to help him.
- Help in the development of Individualized Education Program (I.E.P) if the child requires one, follow it through and suggest changes wherever required.
- Ensure peer bonding.
- · At initial stages this child might be more comfortable with one or two friends.
- · Once the child is comfortable with friendship, he/she will want to mix with more peers.

# 4B.4. Speech and Language Impairment 4B.4.1 What are Speech and Language Impairments?

Speech and language impairment is defined as a communication disorder that adversely affects the child's ability to talk, understand, read, and write. This disability category can be divided into two groups: speech impairments and language impairments.

(http://www.projectidealonline.org/v/speech-language-impairments/Referenced on 8th July 2019)

Speech is the ability to express thoughts and feelings with articulated sounds. Language is defined as method of communication, either spoken or written, using words in a structured and conventional way.

Speech and language put together constitute verbal communication that is the most effective means of communication for day to day living, expression of ideas and emotions.

A child may have speech and language disorders ranging from mild to severe. Due to difficulty with speech (expressive language) the child may have unclear speech, problems with voicequality. The child might stutter or have uneven flow of speech or a combination of speech related issues. Listeners might have problem in understanding his/her speech.

Due to difficulty in understanding (receptive language) the child may hear and see a word and yet be unable to understand its meaning. He/she might be unable to use appropriate words and grammar or might have a limited vocabulary and show incapability of expressing an idea. Speech and language disorder can occur due to genetic reasons, premature birth, low birth weight, hearing loss, neurological disorders, intellectual impairment, brain injury, cerebral palsy, autism, fetal alcohol spectrum disorder. Most of

the times the real cause cannot be pinned down.



**CASE STUDY:** Sudha is a 9 year old girl, studying in class 5 in government primary school in a small village Odar, of District Barabanki. Her father passed away early in her childhood. She has speech and language disability since birth and suffers from speech disorder "Tutlana'(lisping), a type of artculaton disorder. There wasn't any acceptance for her in her family, her mother was quite disappointed knowing that she will not be able to speak for the rest of her life. Through the baseline survey done by SPARC-India, it was known that Sudha was already enrolled in school. Afer learning this, the team started visiting her school. It was observed that though her atendance percentage was satsfactory, teachers weren't supportve towards her. Afer SPARC-India's intervention through Inclusive Educaton and regular visit, teachers started to encourage and support her. For her further growth, Individualised Educaton Plan (L.E.P) has been developed in the school. The team coordinated with special educators alloted by BRC for Speech Therapy Interventon. The training was organized by SPARC-India on "Training on Right To Educaton and Inclusive Educaton" with stakeholders. It influenced her mother in a very positive manner. Later through medical assessment interventon process and contnuous dialogue by SPARC-India, her mother became accepting and sensitive toward her disability. Now she realizes the significance of medical assessment and interventons of Inclusive Educaton Team and appreciates the initatves taken by SPARC-India. Her mother has now become a member of SMC, thus making it an inclusiveSMC. Sudha's mother regularly y Atends SMC meeting.

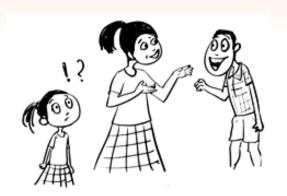
### 4B.4.2. Understanding a Child with Speech and Language Impairment

The child with Speech and Language disorder has difficulty in speaking and hearing as well as phonological and language problems. They cause delayed or arrested speech and hinder language development. In many cases, the child might also have associated specific language disability such as dyslexia, dysgraphia, dyspraxia or ADHD.

It is not because of his/her condition but the feeling of stress that a child shies away from speaking in public. In class the child should be heard patiently and be given ample time to express himself/herself because otherwise the child starts to stutter, fumble and might not be unable to complete sentences, which will further bring down his/her confidence. Self Esteem is the biggest stumbling block that stops the child from learning inside the class. Once the child is sure of being accepted and not made fun of, he/she will be able to learn in classroom environment and interact with peers.



## 4B.4.3 Recognizing Speech and Language Disability in a Child



It is important for teachers to recognize and under-stand the different types of characteristics that their students with communication disorders may have. Not only for accommodations and modifications but also for recognizing possible disorders in case no official diagnosis has been made

If a student is struggling with speech or language disability, the following characteristics should be looked for so that proper instructional strategies can be implemented as soon as possible.

### 1. Academic Performance

- reluctance to contribute to discussions
- difficulty in organizing ideas
- difficulty in recognizing phonemes
- difficulty in producing sounds
- difficulty in finding the right word for things

#### 2. Social Interaction

- Reluctance to interact with other children
- exclusion or rejection by other children
- difficulty in carrying a conversation
- problems in negotiating rules for games

### 3. Cognitive Functioning

- difficulty in organizing information while recalling incidents
- slow response
- inattentive

#### 4. Behaviour

- high level of frustration
- frequent arguments
- fighting with peers
- withdrawing from interaction



### 4B.4.4 Understanding Speech and Language Development

While working with a student with speech and language disability in the class a teacher needs to understand following things:

On account of delayed or restricted communication, this child might not be able to process speech at usual rate. For the child to understand what is being said to him/her, you need to talk at a slower pace and say each word clearly while facing the child so that your lip movement and body language is visible to the child.

As the child might be lacking language processing ability, he might not be able to correlate with a question like-'Add two plus two'. He/she will not know what is being expected from them. Children with speech and language disability learn through con-crete examples, in such cases take help of blocks, or number beads while demonstrating additions or subtractions. It is very important to remember that a child with speech and language disability will only understand concrete concepts first and then move on to abstract concepts.

Examples of Concrete concepts are: Colours, numbers, fruits, vegetables, objects such as table, chair, spoon etc.

Statement such as: This is a mango.

Examples of Abstract concepts are: Love, fear, joy, anger, excitement, fast, slow, sweet, bitter etc.

Statement such as: A mango is sweet.

Let us understand the way children with speech and language disability, (hearing impairment too), learn the best, with the help of a simple example.

The best way to make a child with speech and language disability understand a concept is by exposing him/her to multi-sensory experiences revolving around a concept.

A mango could be explained by letting the child hold a real mango. All children could be together made to say 'aam' (Mango) many times. The teacher could stand facing the child and look at him while saying 'aam'. All children could be made to draw and colour a mango in their class. At lunch time, all the children could be given mango to eat together and asked about its taste whether sweet or bitter. A common involuntary group response when children might respond saying meetha(sweet), khatta(sour) or even khattmittha(sweet and sour)can provide language enrichment for the child with speech disability. The child with speech and language disability should be specially asked about the taste of mango. If the child answers it correctly, appreciate him/her, if not don't say that he/she was wrong. Just gently correct him/her by saying out the word 'meetha' slowly in front of him. Make him repeat the correct answer.



Informal moments and questions like these should be used by teachers for including children with disabling conditions in any fun group activity. Later on the child could be further taught an action rhyme about mango, which would be a kinesthetic way of learning things.

This is how you can teach a concept of mango using multisensoryapproach. It is quite helpful not only with children with speech and language disability but for all children during the stage when basic concrete and abstract concepts are being taught.

Once a concrete concept has been understood by the child, abstract concepts can be built upon it gradually. Once the child has understood how a mango looks like and what colour it is, we made him/her taste it. He/she used sense of taste to understand an abstract concept such as sweet. So by now the child should be able to say words and be familiar with lip movement of short sentences such as:

Aam peela hai. Aam meetha hai. (Mango is yellow. Mango is sweet)

When in a higher grade teacher teaches about trees found in our environment and how a seed grows into a tree and if gives example of a mango tree, the child might find it easier to retrieve information as he/she had gained it experientially. This is the reason why multi-sensory learn-ing is so important. Though it is time taking but yields a better gradual understanding of con-cepts in children during the foundation stage.

CASE STUDY: Sita is a nine year old girl. She lives in Sandepara, Khairabaad Block in Sitapur District. She suffers from speaking impairment - she can listen and also respond to things said to her. Children of her age tease and call her goongi', 'langadiya pagli' due to which she refuses going to school. She faces problems in mingling with other non-disabled children because of her conditon. Through baseline survey in the area, the representatives of Holy Cross Welfare Trust realized that Sita was being neglected in her own family. Sita did not participate in activities in community as well. Afer being identified in the baseline survey she has been registered in Holy Cross Welfare Trust. Her case is being monitored intensively. Through training on Right To Educaton Act 2009 and Inclusive Educaton and frequent house visits, parents and community members have been sensitzed on RTE Act 2009 and RPWD Act 2016. She has now been admited by Government PrimarySchool Binaura. The rigorous efforts of Holy Cross Welfare Trust Sitapur in organizing training on RTE 2009 and Inclusive Educaton with parents resulted in sensitzation of parents of children with disabilites. Now Sita atends school regularly. She has received books and school dress from school. She is enjoys and makes use of all facilities at her school and has learnt to make friends.



# 4B.4.5 Specific Recommendations for a Child with Intellectual Disabilities in an Inclusive Classroom Setting

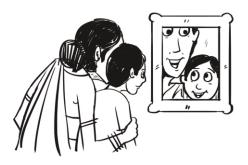
Create a conducive environment for learning in classrooms where every child is encouraged to learn and is appreciated for their achievements irrespective of his/her abilities.

- Use multi-sensory approach as far as possible. Understand that the child cannot hear or is hard of hearing so he/she learns concepts by seeing, touching, smelling and tasting.
- Sit with the child while teaching specific sounds so that the child can model lip movements and facial expressions.





- Do not cover your mouth with your hand while talking.
- Speak clearly. Neither too slowly nor too loudly.
- Use short, simple and clear sentences.
- Use adequate facial expression as this gives more clues than a passive face.
- Eye contact is very important.
- Play question games to help him/her listen and learn.
- Gradually he/she will learn to point, nod or shake her head in response to simple yes-no questions.
- As a next step, ask her questions that need answers in words, not in yes or no.
- Encourage use of gestures but not overdo it as this will hinder his/her language develop-ment.
- If the child mispronounces words, do not correct him/her instead say the correct words slowly and clearly.
- Use singing and role play to express feelings and concepts.
- Encourage parents to speak to the child in front of mirror as it helps the child to make correct lip movements
- accompanying a sound.
- If the child has vocal language, ask her to repeat what she has understood.
- Give extra-time for classwork.
- Help in the development of Individualized Education
- Program (I.E.P) if the child requires one, follow it through and suggest changes wherever required
- Encourage peer bonding and ensure that the child is included in class responsibilities.





# 5. INCLUSION IN EDUCATION - FACTS AND QUESTIONS (FAQs)

# 5.1 What is the status of education of children with disabilities in India and Uttar Pradesh?

The recent UNESCO report, released on 3rd July' 2019- State of the Education Report for India 2019- Children with Disabilities has revealed that just 61% children with disabilities between the ages 5 to 19 years get to attend any educational institution, which is much lower than the national average of 71%.

Disabled Population in India as per census of 2011 (2016 updated) indicates that 'Uttar Pradesh has the highest number of persons with disability' and 'The State of Uttar Pradesh is home for the highest number of disabled children (0-6 years)', it can be safely assumed here that 61% children or less, between 5-19 years attend school. By the data of 2011 Census of India the literacy rate in U.P is 67.68%.

As far as the education of children with disability is concerned, the provisions in the RPWD Act 2017 (U.P) are further backed by the provisions of Right to Education Act adopted by the government of Uttar Pradesh in 2011.

Despite of efforts made by concerned authorities in this direction, the literacy data for Uttar Pradesh depicts a gap between the provisions of RPWD Act 2017 and its implementation and enforcement regarding inclusion of children with disability in the classroom at the grassroots level.

While state authorities, government school teachers and ICDS (Integrated Child Development Services) workers have made sincere efforts in enrolling children with disabilities into anganwadis and primary schools, still a child with disability who regularly comes to school tends to remain isolated due to lack of communication and involvement with his/her peers and teachers.

Although teachers make sincere efforts to accommodate the child in class, they generally lack knowledge of how a child with disability learns. The exact nature and extent of child's disability is often unknown. As a result the child with disability may be unable to participate equally in classroom activities, lose interest academically as well as socially and eventually drop out.

Every child is important and each child who is marginalized and excluded due to disability is even more important.



Always remember that a child is a child first with his/her individual personality, likes and dislikes, disability comes much later. There are many kinds of disabilities and each child with one type of disability is different from a child with another type of disability. In fact children with the same disability may also be very different from each other. The way and extent to which each child is impacted by his/her impairment determines how he/she learns and communicates with teacher and peers. The challenges faced by the child on account of impairment and the struggle to cope with the pace of class lowers his/her self-esteem. Thus a child with disability can be educated once his learning style is ascertained and efforts are made to build his/her self-esteem, establishing pedagogical styles are not much of use in this case.

This manual has been written with the purpose of training teachers to become 'inclusive education teachers' who can facilitate learning for all students regardless of their background, gender or ability and provide them with the opportunities and environment, so that all students can achieve their individual learning potential.

So what is inclusion? What is inclusive education? Does inclusive education work only for children with disabilities or is it for non-disabled children as well? We will now try to understand the concept of inclusive education and what it means in totality.

### 5.2 What is inclusion?

Inclusion is seen as a universal human right. Inclusion aims to achieve a community in which all individuals irrespective of religion, caste, class, gender, disability, medical or other needs are treated fairly and respectfully. They have equal access to resources and opportunities, and can contribute towards society in all spheres of public life.

Inclusion is a belief that every citizen of the country has right to live with dignity, no matter how different he/she is from others. Being included in true sense means not only being physically incorporated but also aims at providing equal opportunities.

The Indian Constitution also upholds this right and assures all Indians the right to 'Equality of Status and Opportunity'. Thus, while it is the responsibility of the society and community to involve and treat all its members as equals, the Indian Constitution also guarantees provision of equal access to opportunities. (Including Children with Special Needs—NCERT, 2014)

Inclusion of a child with disability in the classroom is an important step towards her/his self-growth. It plays decisive role in him/her becoming a part of society he/she belongs to and lead a meaningful life.



### 5.3 What is inclusive education?

An education system that is inclusive welcomes and supports all kinds of students in learning, irrespective of their background, abilities or requirements. This ensures appropriate teaching, right curriculum, accessible school buildings, classrooms, play areas and toilets as well as adequate transport facilities. Inclusive education means all children learning together and no separate schools for kids with disabilities.

Every child has a right to inclusive education, including children with disabilities.

### 5.4 What is the significance of inclusive education?

- It improves learning for all children both those with and without disabilities.
- It promotes understanding, reduces prejudice and strengthens social integration.
- It ensures that children with disabilities are equipped to work and contribute economically
- and socially to their communities.

According to World Report on Disability in 2011, jointly published by World Health Organization and the Word Bank about 10-15% of the world's population lives with some form of disability of whom 2-4% experience significant difficulties in functioning. This global estimate for disability is on the rise due to ageing population and rapid spread of chronic diseases. This rise is also due to improvement in methodologies being used to discern disabilities.

Across the world, people with disabilities have poorer health, inferior education, less economic participation and higher rates of poverty than others. This is partly due to people with disabilities experiencing barriers in accessing normal services like health, education, employment, and transport as well as information. These difficulties are even worse in deprived communities.

To achieve the longlasting, vastly better development prospects, we must empower people living with disabilities and remove barriers that prevent them from participation in their communities, getting quality education, finding decent work, or having their voices heard. (World Report on Disability, 2011)

## 5.5 Does a child with disability have an equal right to education?

Yes, each citizen of India has the right to education and this includes every child with disability. Right to Education is ensured by Article 21A of the constitution of India. Further, the Rights of Persons with disabilities (RPWD) Act 2016 gives 'every child with benchmark disability between the age group of 6 and 18 years', the right to free education.



### 5.6 How does a child with disability benefit from inclusive education?

Isolation is neither good for learners with disabilities nor for others who are without disabilities. Society requires learners with specific needs to get education along with other learners in inclusive schools. This is a cost effective and healthy pedagogical practice (NCERT, 2000). 'Students with disabilities who have been included in school (Inclusion International, 2019):

- Are healthier (as inclusion increases so does health);
- Perform better in highly inclusive settings;
- Are more likely to look forward to going to school;
- Are more likely to be included and participate in their communities after graduation;
- Are more likely to have employment and access to recreational activities.
- Have a high self esteem

Students with disabilities who have not been in the inclusive settings are likely to perform worse than those who have been in inclusive settings.

### 5.7 Is inclusive education good only for children with disabilities?

No. According to UN CRPD Committee "Inclusive education is central to achieving highquality education for all learners, including those with disabilities, and for the development of inclusive, peaceful and fair societies." (UNCRPD 2016).

Inclusive Education makes it possible for children of all types abilities to participate in the class socially and academically. When all children play and learn together, they also get to understand each other better.

### 5.8 Does an inclusive classroom do justice to all children?

The idea of inclusion has been often been denounced on grounds that the inclusive classrooms don't do justice to children with high abilities. The concepts are taught in multi-sensory ways in an inclusive class and emphasis is laid on participation and response than mechanised learning. This makes learning more fun and engaging for average and high ability children as well and encourages them to explore a concept deeper.



# 5.9 What are accommodation and modification? Are they different from each other?

Teachers might often come across the terms accommodation and modification in context of inclusive education though they sound similar but they have different meanings.

An accommodation or adaptation changes the way a student learns a topic taught in his/her class room whereas modification changes what is taught to a student. Accommodation means the same topic being taught to everyone in the class room including the child with disability in a way to make him understand. This is done by making reasonable adjustments in the way the topic is taught.

Modification means where the curriculum itself is changed, or modified. Complex chapters are made simpler. Chapters that are out of context are removed.

This difference in accommodation and modification exists during teaching and assessment. Accommodation during assessment would mean giving extra time to child for a test or letting him use a scribe, whereas Modification during assessment would mean that a different question paper is given to the child with disability.

Accommodations and modifications can find their use as teaching aids, teaching learning materials(TLM) and technology.

# 5.10 Does inclusive education require modifications in the regular curriculum?

No! The curriculum always need not be modified.

It is possible to use the same curriculum for children with disabilities by making reasonable accommodations.

### 5.11 What are the key ingredients of an inclusive education system?

- Students go to the same school that they would have gone without having disability. They are educated alongside their non-disabled peers and receive support to participate in activities and learn;
- Teachers are trained and supportive regarding learning ways to upgrade their teaching skills using different methods for different learning styles;
- School culture learns to value diversity;
- Schools have access to the financial and human resources to support inclusion



# 5.12 I have a child with disability in my classroom. How do I describe his disability?

Language reflects our thoughts and attitudes. As teachers we have many young minds model-ling their language after us and village communities follow and respect us. We must make proper use of our position and authority to bring about a positive change. Let us start by understanding that our new young learner with disability is a first a child with an individual identity, personality, capabilities, likes and dislikes. She or he is not 'that child', 'or that type of child' or 'the other type of child', but 'our child', as much as any other student of the class. She or he is not a 'disabled child' but a 'child with disability'.

A child with disability is just like any other child that deserves dignity of being addressed by a formal name and not by his/her disability label.

Given here are correct ways to describe a child's disabling condition.

Labels should be avoided as they cause stereotyping and lower the expectation from a child with disability. Given below is the better way to address a child:

Words to Avoid	Words to Use
Handicapped, Crippled, lame	Child with physical disability
Blind, sightless	Child with visual impairment
Deaf and dumb	Child with hearing impairment
Dumb	Child with speech impairment
Mad, Mentally Retarded	Child with intellectual impairment
Spastc, case of cerebral palsy	Child with Cerebral palsy
has fits, throws fits, epileptc	Has epilepsy, seizures
Disfigured, deformed, abnormal, invalid	Disabled, Child with disability
Healthy, normal, ablebodied person	Non-disabled person



Labels such as cripple, spastic, handicapped, invalid are derogatory and sound offensive hence should be avoided.

When comparing a child with disability to his/her peers, refrain from using the word 'normal students.' This implies that a person with disability is abnormal and we forget to take in account that everyone has his/her own unique identity and abilities. For comparisons you can say 'nondisabled' students instead.

If we are inclusive as teachers and care givers and we should make sure of choosing the kind of right words and stay away from labels. With simple gestures, we can make a positive impact on the lives around us.

# 5.13 How to create an Effective Inclusive Classroom that has children with disabilities?

- 1. Create an environment conducive to learning in the class where every child is encouraged to learn. Focus on abilities of each child.
- 2. Focus on each student's strengths as much as possible. Engage in activities for the entire class that will bring out this strength and make a child take pride in himself/ herself.
- 3. Understanding the preferred learning style for each child is the key to effective teaching.

  Particularly a child with disability is likely to have a unique style of learning that compen-sates for his/her disability.
- 4. Understand what your students know already and teach a new concept in a way that it will add to their existing knowledge.
- 5. Address each child respectfully by his/her proper name and not a label (especially for a child with disability).
- 6. Encourage discipline. Have very clear class rules for each age group. It helps to put them up as a written list in big font for children with low vision or even as picture cards for visual learners.
- 7. Avoid unnecessary criticism.
- 8. Do not compare abilities of students in a derogatory manner. Praise students when they do something good though in a way that should inspire his/her peers.
- 9. Children with disability may face severe challenges in participating in class both academically and socially as they lackin certain skills. For this reason they show low self-esteem. Show concern and give that extra support that the child needs. This is the best way to create supportive and cooperative attitude amongst peers.



- 10. Modify classroom activities so that they are easier, while keeping the same learning objectives.
- 11. Use multi-sensory approach for all subjects, involving visual, auditory, kinesthetic and tactile (VAKT) means of teaching a concept. This will help all the students.
- 12. Plan the teaching learning materials (TLM) beforehand including the requirement for the child with disability.
- 13. Always remember to praise a child when he/she child does something good. Positive reinforcement keeps the child motivated and interested in studies While specifically working with children with disabilities, three most important aspects that teachers need to work upon are:
- Understanding the preferred learning style of the child.
- · Reinforcing the self-esteem of the child.
- Work with the core strengths of the child

## 5.14 How to create an Effective Inclusive Classroom that has children with disabilities?

Sensitize your class to the issues faced by the child with disability. Explain to them in a way they will understand. Here are basic ideas you could share with them:

- All children are different. Sometimes these differences are a bit more noticeable.
- A child with disability is just like any other child who wants to be loved, cared for and likes to play with friends.
- Just like anyone else, a child with disability would like to be addressed respectfully by their proper name and not by a label.
- Disability is not the main characteristic of a child but just one facet. Every child has likes, dislikes, strengths or weaknesses.
- Disability is not infectious.
- Just because someone has a physical disability, it doesn't necessarily mean that they have a 'thinking' disability.
- Children with disabilities can do many things, but might need a longer time and they might need assistance as well.
- Modify classroom activities so that they are easier, while keeping the same learning objectives. Use multi-sensory approach for all subjects, involving visual, auditory, kinesthetic and tactile (VAKT) means of teaching a concept. This will help all the students.
- Plan the teaching learning materials (TLM) beforehand including the requirement for the child with disability.
- Always remember to praise a child when he/she child does something good. Positive reinforcement keeps the child motivated and interested in studies



While specifically working with children with disabilities, three most important aspects that teachers need to work upon are:

- Understanding the preferred learning style of the child.
- Reinforcing the self-esteem of the child.
- Work with the core strengths of the child

### 5.15 How to sensitize peers?

Sensitize your class to the issues faced by the child with disability. Explain to them in a way they will understand. Here are basic ideas you could share with them:

All children are different. Sometimes these differences are a bit more noticeable.

A child with disability is just like any other child who wants to be loved, cared for and likes to play with friends.

Just like anyone else, a child with disability would like to be addressed respectfully by their proper name and not by a label.

Disability is not the main characteristic of a child but just one facet. Every child has likes, dislikes, strengths or weaknesses.

Disability is not infectious.

Just because someone has a physical disability, it doesn't necessarily mean that they have a 'thinking' disability.

Children with disabilities can do many things, but might need a longer time and they might need assistance as well.

## 5.16 How to help parents develop positive perception of their child with disability?

- Read and learn about the diagnosis of children with disabilities instead of relying on heresy. Remember that there could be individual differences present in children having the same diagnosis.
- Find out from parents how their child communicates, spends time and the way they support their child. This often shed lights on the child's strengths.
- Parents need to be informed about how their child is being supported and accommodated in school, and also the outcome of the support.
- It is important for teachers to be non-judgmental towards parents as will enable a positive attitude. Parents are not to be blamed for having a child with disability.
- There should also be a non-judgmental attitude towards children with disabilities especially those who exhibit difficult behaviours.
- Maintaining a home-communication booklet and providing time for parents to meet teachers help
  in keeping parents and the child engaged. The exchanges done by communication booklet and
  meetings should not just focus on the weaknesses of the child but also his/her strengths and
  achievements.
- Working in collaboration with parents and care-givers and encouraging involvement in the development of individual educational plan can boost learning outcomes.



# 6. BREAKING DOWN BARRIERS-FACTS AND QUESTIONS (FAQs)

#### 6.1. What does 'accessibility' mean? Is it same as 'barrier-free'?

Accessibility means designs of products, services or environment that can be used by people/children with disability e,g, Braille, hearing aids, school with ramps and wide doorways. Barrier free design describes the 'effort of removing physical barriers from a built environment for people with disabilities... it focuses on disability and accommodating people with disabilities in the physical environment.' (Universal Design Project, accessed on 14-11-19).

Barrier free design also aims at providing accessibility to persons/children with disability.

For Example: Making a ramp for wheelchairs alongside steps, making a ramp and installing handrails in a bathroom.



This Pilot School in the Inclusive Education Project area has installed a ramp with railings at the main entrance, making the building accessible for children with disabilities



Design of accessible toilet with handrails that can be used by children with disabilities

This Pilot School in the Inclusive Education Project area has installed a ramp with railings at the main entrance, making the building accessible for children with disabilities.

## 6.2. What are the barriers or challenges faced by children with disability in a regular classroom?

Disabilities can severely limit the physical and cognitive functions in children and thus negatively impact the process of learning. This impact is not due to disability in essence but is due to reduced opportunities in participating socially and academically for many reasons.



Poverty is one of the biggest reasons. If there is poverty associated with disability, the child is even more affected. Opportunities to participate also get reduced due to lack of infrastructure and most difficult of all, the attitudinal barriers.

To address these issues, RPwD Act of 2016 had laid clear provision for education of children with disabilities in inclusive classrooms across the nation. The recently introduced New Education Policy 2020 also recognizes the importance of creating enabling mechanisms for providing opportunities for obtaining quality education for children with disabilities.

Education is the single greatest tool for achieving social justice and equality. Inclusive and equitable education - while indeed an essential goal in its own right - is also critical to achieving an inclusive and equitable society in which every citizen has the opportunity to dream, thrive, and contribute to the nation.

The education system must aim to benefit India's children so that no child loses any opportunity to learn and excel because of circumstances of birth or background.

#### -National Education Policy 2020

While moving from regular to inclusive classrooms that include students with different abilities and preferred learning styles, it becomes extremely important to make certain changes in classrooms and schools. This diversity must be accommodated in a way that all students can have equal opportunities to learning and social interaction. Present day classrooms and schools need an arrangement acknowledging this fact. An apt approach that can help achieve this is found in Universal Design for Learning (UDL).

Universal Design for Learning (UDL) is a way of thinking about teaching and learning that helps give all students an equal opportunity to succeed.

The goal of UDL is to use a variety of teaching methods to remove any barriers to learning and give all students equal opportunities to succeed. It's about building in flexibility that can be adjusted for every student's strengths and needs. That's why UDL benefits all kids.

This approach to teaching doesn't specifically target kids who learn and think differently. But it can be especially helpful for the 1 in 5 kids with these issues—including those who have not been formally diagnosed.

(www.understood.org accessed on 10thMarch2020)



#### 6.3. How accessible are our schools for children with disabilities?

Can we measure how accessible a school is for children with disability? There are three indica-tors to measure how accessible or 'Barrier Free' a school is:

- 1. Physical access
- 2. Social access
- 3. Quality of access

#### 1. PHYSICAL ACCESS

- 1.1 Identification and mapping of children with disability
- 1.2 Assessment of children with disabilities
- 1.3 Making aids and appliances available
- 1.4 Removal of architectural barriers (Refer Annexure 15 Pg)

#### 2. SOCIAL ACCESS

- 2.1 Orientation and sensitization of school principals, staff, parents, community and peer sensitization
- 2.2 Disability awareness campaigns in the villages
- 2.3 Poster making events and competitions
- 2.4 Celebration of World Disabled Day, Louis Braille day.

#### 3. QUALITY OF ACCESS

- 3.1 Support services such as audio-visual technology, voice recorder, alternative communication tools
- 3.2 Curriculum adaptation
- 3.3 Curriculum enrichment through multi-media
- 3.4 Teachers training
- 3.5Resources Available such as physiotherapists, speech and hearing experts
- 3.6 Development of inclusive TLM-tactile, 3D, Multi-sensory





















Always be Hopeful Keep your patience and do not give up on it

Keep realistic goals and discuss with the resource teacher

Remember to share your best practices



#### 7. TEACHING STRATEGIES FOR AN INCLUSIVE CLASS

Each child is different and in the same way each child with disability is also different from each other. This diversity is strength because it makes us take a closer look at our own thoughts and attitudes as well as of those around us. It also encourages us to explore means and ways in which we can make learning accessible to a child facing a barrier in learning a concept. When the child's challenge becomes our challenge, we can find a way around it.

The shift from a regular classroom to an inclusive classroom begins with a shift in focus from 'disability orientation' to 'ability orientation'.

From a 'you can't do it so you can't be a part of it' to 'you can't do it now so I must find a way to help you be a part of it". (Downing, 1996)

Teacher and the method of teaching both play vital role in making learning process accessible to each student of the class. As inclusion is the way forward, let us understand the most significant considerations for an inclusive classroom.

#### 7.1. What should be the core values of an inclusive education teacher?

Four core values relating to teaching and learning have been identified as the basis for all teachers in inclusive education. These four core values are:

- 1 Valuing learner diversity learner difference is considered as a resource and an asset to education
- 2 Supporting all learners teachers have high expectations for all learners' achievements
- 3 Working teachers with others collaboration and teamwork are essential approaches for all
- 4 Continuing personal professional development teaching is a learning activity and teachers take responsibility for their own lifelong learning.

https://www.european-agency.org/resources/publications/teacher-education-inclusionprofile-inclusive-teachers accessed on 10-3-2020



### 7.2. How to address diversities in learning styles?

A child learns by using all five senses and yet has a specific way by which he/she learns best. This is his/her preferred learning style. In some ways the preferred learning style of an individual is as unique as their finger print. For instance if a teacher is teaching about elephants, some children will read to understand, or see pictures and understand while few others might learn better by listening about it, or some others may learn through an action rhyme about elephants.

It is important to understand that student's preferred learning style is not an indica-tor of intelligence or his/her ability to learn things. No learning style is better than the other, traditional classroom 'Chalk and Talk' teaching has been relying heavily on visual and auditory senses. This is a barrier in learning for the children who cannot use these senses or can use them in a limited way. But now that we are looking to make our classes accessible for children of all abilities, we need to find ways and means to balance and built awareness.

Neil Fleming's VARK Model (1987), describes 4 different learning styles that represent how students learn. VARK is an acronym that stands for Visual, Auditory, Reading/Writing and Kinesthetic.

Visual Learner: Learns by observing and seeing videos, pictures, diagrams or demonstrations.

Auditory Learns: Learns better by listening to spoken word, music, sound and noises.

**Reading/Writing Learner:** Prefers to see data in print, preferably printed in words.

**Kinesthetic learner:** Learns by concrete personal experience- by grasping, holding, tasting or simulation- for example, a working model of what is being taught. Might also learn better by simply moving inside the classroom, doing an errand or walking up to blackboard. Let us look at the preferred learning styles that work best for children with disabling conditions.

#### 7.2.1. Locomotor Disabilities

- Such children can learn just like their peers, if adequate teaching strategies and assistive technology is used.
- Teaching aids that suit visual, auditory and kinesthetic learning styles Adaptations in physical environment are conducive to learning eg: special pencil grip, special tables and chairs adapted according to the child



Assistive Technology: any item or a piece of equipment or product system that is used to increase, maintain, or to improve functional capabilities of diverse learners. Eg:

Hearing aids, mobility aids like crutches, teaching and learning aids, seating aids

#### 7.2.2. Visual Impairment

- Learning of Children with Congenital Visual Impairment is more impacted than those with
- Adventitious Visual Impairment
- Usually auditory learners
- Kinesthetic/ Tactile learners: learn by doing and touching
- · Residual vision should be used

#### 7.2.3. Hearing impairment

- Learning of Children with Congenital Hearing Impairment is more affected than those with Acquired Visual Impairment
- Often visual learners
- · Residual hearing should be used

#### 7.2.4. Cognitive and Intellectual Disabilities Specific Learning Disabilities

Visual, Auditory and Kinesthetic learners

#### **Autism Spectrum Disorder**

- Visual learner
- · Concrete thinkers- learn with visual cues and supports such as picture cards
- Few maybe good auditory learners
- Learn well when paired, or in small groups that are co-operative

#### **Intellectual Disabilities**

- · Learn at a slower pace than their peer group
- · Learn better when a concept is broken into smaller chunk
- Learn better with the help of real objects in natural environment
- Visual support and learning by practical tasks is effective
- Learn best in very small groups



### 7.2.5 Speech and Language Disorders

- Learn using visual, tactile and audio clues
- Needs to focus upon each socializing

In case of Multiple Disabilities, strategies can be planned according to the dominant disability of the child.

To accommodate diverse learning styles, Multisensory Approach may be used- a teaching method that engages more than one sense of a child to learn a concept that could be Visual, Auditory, Kinesthetic and Tactile (VAKT). This approach is very effective for an inclusive classroom because the same curriculum can be used with all the students by making reasonable accommodations rather than making modifications in the syllabus.

For this, we need to understand the preferred learning style of a child with particular disabling condition and make reasonable accommodations for that in our day to day teaching. The use of multisensory learning pathways also creates more participative learning experiences for children and helps them engage in group activities. When each child, regardless of her/his ability can participate academically by 'accessing' learning and socially interactive activities, we are looking at an inclusive classroom

Multisensory Approach works well not only for children with disabling conditions but also enhances learning in their non-disabled peers as it improves the essential functions of the brain such as listening skills, movement, vision, tactile recognition and conceptualization.

#### 7.3. How to facilitate in an inclusive classroom?

To teach in an inclusive classroom at a primary level, the teacher need not necessarily make separate lesson plans but a common plan that benefits all and in that take care of the specific needs of the child facing challenges. This is achieved with the help of Multi-level Teaching or Multi-Level Instruction.



Multi-level teaching is where one lesson or concept is taught to an entire group of students while meeting the individual needs of each child. Multi-level teaching is an effective approach and requires less time than giving separate instructions. It allows the teacher flexibility to adjust the learning outcomes so that students don't feel bored due to the lack of challenges or disengaged from a lesson that might be too difficult to understand. This approach works best in classes with a high student to teacher ratio.

In case of a child having an acute requirement for an Individual Education Plan (I.E.P), teacher should contribute to the development of an Individual Education Plan (I.E.P) along with the resource teacher and experts appointed by the Govt or NGO, follow it through and make changes wherever the need arises.

#### 7.4. How to make a multi-level lesson plan for an inclusive class?

Making a proper 'Lesson Plan' is quite essential as it helps teacher to maintain a standard teaching pattern and reduces possibility of deviations from the said topic.

Answering the following questions, teachers can follow a step by step process and prepare a multilevel lesson plan for any grade and any subject.

#### 1. 'What is the goal of teaching this lesson?'

Determine the exact learning outcome expected from this lesson.

## 2. 'Are my students ready for this lesson plan? Does it involve learning through activities?

Create a lesson plan that is appropriate for the grade level and is multisensory activity based such as discovery, application, cooperative groups, visual, kinesthetic, audio and tactile means.

#### 3. Will this 'Lesson Plan' truly work for my class? Is it activity based?

Review your plan to check if it is indeed appropriate for your class and activity based. Ask a fellow teacher to review it with you.

#### 4. 'Which students will need additional support to achieve the learning outcome?

Assess the learner characteristics of your students and match them to the goal you had started with. Create a List of those students in a column that will need additional instructions to achieve the desired learning outcome.



#### 5. 'How can these students participate more successfully in this lesson?'

Complete the process by listing adaptations and TLM(Teaching Learning Materials) required for the lesson plan for each child facing challenges including those with physical and intellectual disabilities.

During the lesson, it is important to observe students to see if they are able to participate fully.

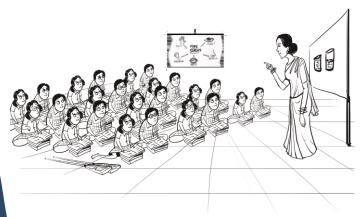
Those who are unable to participate can be provided more support and assistance by the teacher.

#### 6. 'How will I know that students have achieved the goal that I had set for them?'

A lesson plan is complete only when it has a clear and measurable learning outcome. What students have learnt needs to be assessed informally at the end of each class by asking questions and formally by giving worksheets that have been adapted according to their specific needs.

#### Few Examples of Multi-Level Teaching

Literacy	Science	Maths
Choice of books at different levels. Buddy reading. Read-alouds. Individual writing goals. Stick-figure drawing to write a story line. Picture cards. Individual spelling lists.	Experiments with different group roles identified. Note-taking by graphic organizers such as concept map. Informational reading at many levels.  Heterogeneous work groups help each other with assignments.	Math games. Learning groups based on student interest and readiness. Math projects with multiple types of tasks and levels to choose from. Whole class interest related community projects.



An Inclusive Classroom

Each child in a classroom is different from the other. Inclusion is first and foremost a philosophy and belief that all children are equal, irrespective of differences in abilities, gender orsocio-economic background.

They deserve equal opportunities to learn and participate in the class room. A classroom and school that believes in this basic value creates an inclusive environment that encourages all children to participate and grow together.



### 7.5 Specific strategies for an inclusive classroom

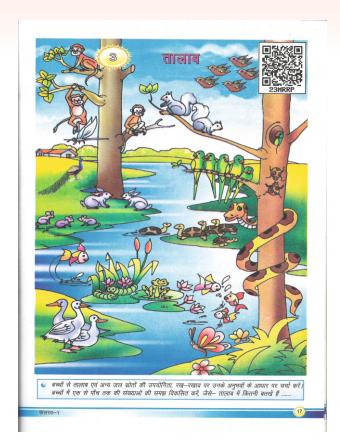
On a daily basis there are strategies you can follow with the entre class at each stage of learning. It has blended components that work well for children with disabilites within regular educatonal set up. Many known facts and best practices have been listed herethough you can add more to the list, adapt according to the local environment and create and share your best practices.

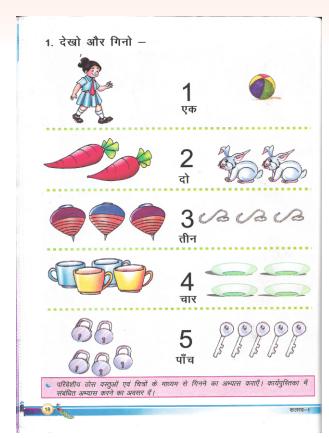
	Vision	Hearing	Mobility	Communication	Cognition / Intellectual
Seating the child in the class in the class	Sit in the first row, close to the blackboard so that can use residual vision, Appropriately lighted, minimum glare	Sits close to the teacher so that can observe teachers lip movements, facial expressions and gestures Away from door or window to reduce background noise.	Adequate seating according to posture. Furniture adapted to requirement. If wheelchair user, desk height according to wheelchair. Close to the door for easier navigation.	Sits close to the teacher.  Away from the door or window to help the child focus	First row, ensure there is no change in the seating.  Away from the door or window if the child has attention deficit.  Give enough space so as not to disturb other children.
Making classroom accessible	Neat rows, with clear passages to avoid the child tripping	Semi circle so that the child can watch lip movements of peers. Have absolute silence in class while teaching.	Neat rows, with wide passages for navigation. Give scribe for tests/exams.	Semi circle so that the child can watch lip movements of peers	Same arrangement, minimum change in class arrangement as far as possible
Teaching-Learning materials	Contrast colours, tactiles of shapes, concepts, numbers being learnt, real objects & materials for understanding (animals, birds, vehicles, leaf, bangle, cotton boll, etc)	Visual or sight vocabulary, using rhymes with actions, abacus, flash-cards for colours, numbers, letters, puzzles etc, dramatizing concepts and stories.	In case of difficulty in writing, Consider activities such as sorting, threading, solving puzzles, matching cards. Fix books, papers etc on table if required.	Tactile and visual TLM, 3 D shapes and objects, puzzles,	Task lists, picture schedule and calendar, picture based instructions , Adapted toys and games
Type of instructions	1. Address the child by name. 2. Be precise( Turn to page no.5 instead of look at this page). 3. Describe verbally all visuals. 4. EgUse orientation and mobility instructions such as clock concept.	1. Use clear and simple speech.  2. Speak directly to the child <sup>3</sup> Explain visuals in texbooks in an even and slower pace using only as many words as required.  4. Write all key points on the board.  5. Encourage imitation of sounds	1. In case the child's comprehension is ageappropriate, normal instructions. 2. In case of developmental delay, repeat instructions, recheck after each exercise if the child has followed.	1. Use clear and simple speech.  2. Speak directly to the child  3. Explain visuals in textbooks in an even and slower pace using only as many words as required.  4. Write all key points on the board.  5. Encourage imitation of sounds	1.Use short sentences to talk. 2.Break down topics into smaller segments, starting with simple going onto complex. Check the progress and then move onto the next topic. 3.Give more time and practice than other children.
Assistive aids	Glasses, magnifiers, Braille books, large font textbooks, Taylor frame, audio-books	Hearing aid, E-learning modules	Wheelchairs, adapted seats and tables, artificial leg or hand, calipers, adapted toilet seat, pencil grips, book- holders	Communication cards with texts, communication board with letters, symbols or pictures.	Message boards, manual or automatic reminder, schedules, calendars
Preferred Learning Style	Learns mainly by listening and touching. Use taste, smell to augment learning. Use residual vision as much as possible.	Learns by watching, facial expressions and gestures. Use taste, smell and kinesthetic means to explain concepts. Use residual hearing as much as possible.	Learns numbers more by doing identifying, sorting& matching exercises. Learns language more by graphics and pi Might mumble to repeat to himsel in order to learn.	Learns by tactile and visual clues, one concept at a time. Responds better to open ended questions. Responds to an establish procedure for communication with teacher(eg: asking for help)	Learns better in a small group by means of concrete concepts and by doing, Identifying, sorting, matching.
Behaviour	The child may not be aware of expected behaviour during class. If the child is talking during class, touch gently on the shoulder to bring back her attention.	Explain class rules to child while being very close to them. Make sure the child knows what is expect of him/her.	In case writing is affected, assign a buddy so that the child can keep pace with classwork and doesn't lose focus after the first few minutes.	Fear of being teased might stop the child from expressing him/herself. Avoid making the child conscious by discouraging or even encouraging too much. Let the child express without commenting as far as possible.	In case of out of seat behaviour, give classwork in small segments, followed by a chore (run to office to fetch a box of chalk)



#### 8. ADAPTATIONS FOR CHILDREN WITH MIXED ABILITIES

### 8.1 Teaching: Textbook-Kalrav 1, Chapter 4 "Taataab"





Chapter 4 from textbook Kalrav 1 has been adapted to demonstrate teaching strategies for a class with diverse learners.

When a six year old having a disabling condition enrols in a class, he/she might find it difficult to comprehend what is being taught in the class for two reasons:

- 1. He/she might lack any prior exposure to learning due to isolation.
- 2. He/she might not be able to fully comprehend what is being taught because it is not taught in a way that he/she can understand. For example: if a visually impaired child is supposed to answer 'what is shown in this picture', he might answer according to what others in the class are answering, but he/she might not understand that the parrots are smaller than ducks because that information is not available to him.

This way the learning gap in our children with disabilities starts from class 1 and keeps on widening with time due to which they may start bunking school and may eventually drop out.

With the aim of strengthening the foundation of learning to which our diverse learners can add further, we need to look at the entire textbook and plan each chapter quite well at least a month in advance.



The first pre-requisite of being an inclusive education teacher is having concern for a child with a physical or mental impairment. Such a teacher observes the child, looks for effective ways to facilitate learning and thus ends up evolving best practices.

Teaching in an inclusive classroom does not require teachers to teach any student individually all the time. Rather, lessons should be planned in a way that involves all the five senses (as opposed to the traditional visual and auditory). This compensates for the shortcomings that a child with disability might have, by providing multiple opportunities to engage him/her in the learning process.

You may refer to section 7.2 How to Address Diversities in Learning Styles to adapt a lesson plan according to the learning needs of the child with disability. The strategies and accommodations given below are suggestions, not rules. As you keep observing children - their responses and progress, you will keep evolving your own best practices for them.

#### **8.2** Strategies Common to all Inclusive Classrooms:

- 1. Use of multi-sensory approach-rhymes, stories, games, colouring, art and craft.
- 2. Putting up big sized number cut-outs on class board for sight learning and and using TLM for tactile learning for both visual and non-visual learners.

#### 8.3. Planning Lesson for a Class That Includes A

#### CHILD WITH VISUAL IMPAIRMENT

Date: Subject: Maths & EVS Class: 1

Textbook: Kalrav Duration: 30 min Chapter: Talaab

#### **Primary Objective:**

- Making children aware about water, sources of water, why it is important and how to save water
- Familiarizing children with numbers 105.

#### **Secondary Objective:**

Colours, spatial concepts and articulation.



Supporting Material for the Class: A tactile of the "Taalaab" scene on Page 17 of textbook Kalrav, 3D number tiles, A5 size animal cutouts, crayons, glue, flash cards, coloured chalk, duster, pointer.

#### **Specific Considerations for a Child With Visual Impairment**

**Additional TLM:** Big sized shapes of all animals from the chapter, some cotton wool, fresh leaves, flowers, bark of a tree, fresh grass, a bucket full of water,

**Seating in the Class:** First row, close to the blackboard (except in a few specific cases) to enable the use of residual vision, adequately lighted rooms, minimum glare

**Preferred Learning Style:** Learns mainly through listening and touching, use of taste, smell, big fonts and contrasts to augment learning. Use residual vision as much as possible.

Type of instructions: Address the child by name, be precise, and describe all visuals verbally

# Pre-knowledge: All children know what water is. Few children may know about numbers.

**Warm Up:** The teacher instructs all children to make a circle, including those with disabilities. Teacher will sing a number song aloud with actions and children will repeat the song and actions afterwards.

**Introduction Question:** Teacher asks Question(i) 'Children what do you drink when you are thirsty?

Children Answer (I) 'water' (pani).

Teacher asks Question(ii) What are other uses of water?

Children Answer(ii) Brushing teeth, bathing, watering plants, farming, making food etc. In case children are unable to list many uses, give them clues so that they think of answers. For e.g.:

How does Mamma make tea?

Statement of Purpose: Children today we will learn about water, places where we find plenty of water, animals that we might find near water and things that we should do to save water.



# LESSON PLAN FOR A CLASS THAT INCLUDES A STUDENT WITH VISUAL IMPAIRMENT

Text	Teacher Does	Children Do	Child with Visual
Talaab Visual Pg 17	Holds up the book, and asks children Q1 'What is this place?'	A1.Some children answer 'talaab'.	Impairment Might answer without understanding
Tactile of Talaab For the Child with Visual Impairment	Sits near the child and guides his fingers over the tactile while describing the 'talaab' visual to the rest of the class briefly.		Touches and feels the tactile with fingers. Feels different textures of grass, water, bark, leaves, clouds.
	Q1. So what do we call this place?		A1Answers 'talaab' after understanding the scene.
Talaab Visual Pg 17	Q2 What do we see in this picture? Do we see a lot of water? What about land and sky? Talk about water sources, uses of water and saving water.	A2 Children describe the visual and listen to the teacher as she explains.	Depth perception, water, sky, land.  Demonstrate depth of Talaab with bucket of water, stretch hand in the air for sky, with foot on the ground feel the land.  A2 Answers after feeling the tactile and correlating with practical depth perception experience
Talaab Visual Pg 17	Q3. What animals do we see around 'talaab'? Let's hear from each one of you.	A3Each child answers turn by turn	
Animal Tactiles one for each animal	As other children answer one by one, teacher guides finger of the child on the outline of each of the animals children talk about		A3Teacher helps child to get familiar with various animal shapes and correlate characteristics of animals with names.
	Q4. How does a xxxxx animal look like?	A4 Children describe each animal, eg: a Monkey has round ears and a long tail	A4. Child picks up the matching tactile to the animal, first with teachers help. Then independently.
Talaab Visual Pg 17	Q5 How many xxxx(name of the animal) do we see? Let's count Start with 1, go on to 6.	<b>A5</b> Children look for different animals and answer one by one.	
Exact no. of Animal Tactiles corresponding to each animal in the picture	Q5 How many xxxx(name of the animal) do we see? Let's count Start with 1, go on to 6.		A5 Child counts animal tactiles of numbers corresponding to each animal in the picture. Teacher gives extra time.



**Blackboard Activity:** Teacher will draw numbers from 1-5 on the board. Children will recognize each number and reply.

**Art & Craft Activity:** Teacher will divide children into groups of 5 and distribute five cutouts of animals from the chapter to each child. Children will colour and paste the cutouts on chart paper. This artwork can be put up on class walls.

**Practise Worksheets:** Matching numbers 1-5 to animals, join the dots etc.

#### **Assessment:**

#### Assessment Checklist (After Lesson Plan)

School Name: Class:

Teacher Name:

Subject: Maths& EVS

Learning Outcome: Number recognition, counting 1-5

Assessment activity: Student teacher one to one while counting animals

S.N	Student's	Met	Has not Met	Comments
0	Name	Skill	Skill	
1.	Ali	yes		
2.	Ankita	yes		
3.	Babita			
4.	David		no	Needs prompting
5.	Rahul		no	Knows up to 2
6.	Shankar	yes		Hesitates, needs
				confidence
7.				
8.				
9.				

### 8.4 Planning Lesson for a Class that Includes a Child with Hearing

Date: Subject: Maths&EVS Class:1

Textbook: Kalrav Durattion: 30 min Chapter: Talaab

Primary Objective:

- 1. Making children aware about water, sources of water, why is it important and how to save it.
- 2. Familiarizing children with numbers 1 to 5.

Secondary Objective: Colours spatial concepts, articulation.

Supporting Material for the Class: A tactile of the scene on Page 17, 3D number tiles, A5 size animal cutouts, crayons, glue, flash cards, coloured chalk duster, pointer.



#### Specific Considerations for a Child With Hearing Impairment

**Seating in the Class** First row. Sits close to the teacher so that can observe teachers lip movements, facial expressions and gestures. Away from door or window to reduce background noise.

**Preferred Learning Style:** Learns by watching, facial expressions and gestures. Use taste, smell and kinaesthetic means to explain concepts. Use residual hearing as much as possible.

**Type of instructions:** Use simple & clear speech, speak directly to the child, ask her to watch your lip movements and gestures. Explain visuals in an even tone and slow pace, write all key points on board, encourage imitation of sound. If child is wearing hearing aid, check if its working

Encourage the child for her effort. Even if the sound is not accurate, don't scold or discourage by saying 'No' or 'its not correct'.

# Pre-knowledge: All children know what water is. Few children may know about numbers.

**Warm Up:** Associate each number with a finger and clap sound. For one, say one, show one finger and clap once. Pause for 2 seconds. For two, say two, show two fingers and clap twice and so on. The whole class will enjoy this activity.

## Introduction Question: Teacher asks Question (i) 'Children what do you drink when you are thirsty?

#### Children Answer (i) 'water' (pani).

If there is a child with hearing/speech and language impairment, ask all children 'how' and demonstrate the action of drinking water. The child will understand and do the same. If there is residual hearing/ability to vocalize, say the syllables 'pa' and 'ni', ask the child to make lip movements of 'pa' and 'ni' while letting the child feel the pressure on your throat. Do this a few times till the child is able to vocalize.



(i) teacher helping the child in saying specific sounds



(ii) Teacher talking with hands to children (sign language)



(iii)A child with hearing impairment reads teachers lips and then tries to imitate the sound by making similar lip movement.



(ii) What are other uses of water?

Ans (ii) Brushing teeth, bathing, watering plants, farming, making food etc.

Communicate few of these activities to the class using sign language and ask them to guess. All children will try to guess and the child with hearing impairmentwill try to vocalize the word. Encourage the child but allow him/her time to learn new words. Do not push or rush them. But if he/she is learning, introduce new words otherwise she might lose interest.

Statement of Purpose: Children today we will learn about water, places where we find plenty of water, animals that we might find near water and what we should do to save water

# LESSON PLAN FOR A CLASS THAT INCLUDES A STUDENT WITH HEARING IMPAIRMENT

	1		
Text	Teacher Does	Children Do	Child with Visual Impairment
Talaab Visual Pg 17	Holds up the book, and asks children Q1 'What is this place?'	A1.Some children answer 'talaab'.	Might not be able to vocalize, or miss out on middle syllable (taab).
Talaab Visual Pg 17	Sits facing the child and says each syllable 'ta', 'la', 'b' then clearly saying 'talaab' Q1. So what do we call this place?		Child watches lip movement, tries to imitate the sound. Shyly and hesitantly at first.(This might take one or many classes)  A1Answers 'talaab' in front of the class.
Talaab Visual Pg 17	Q2 What do we see in this picture? Do we see a lot of water? What about land and sky? Talk about water sources, uses of water and saving water.	A2 Children describe the visual and listen to the teacher as she explains.	A2 Answers after teacher demonstrates how to say each word slowly and clearly
Talaab Visual Pg 17	Q3. What animals do we see around 'talaab'? Let's hear from each one of you.	A3 Each child answers turn by turn	A3 Answers after individual sessions with teacher.
Talaab Visual Pg 17	Q4. How does a xxxxx animal look like?	A4 Children describe each animal, eg: a Monkey has round ears and a long tail	<b>A4.</b> Let the child speak in phrases she is comfortable with and gradually move to small sentences.
Talaab Visual Pg 17	Q5 How many xxxx(name of the animal) do we see? Let's count Start with 1, go on to 6.	A5 Children look for different animals and answer one by one.	A5 Child counts animal shapes of numbers corresponding to each animal in the picture. Teacher gives extra time.



### 8.5. Planning lesson for Child with Cognitive Impairment:

Children with specific learning disabilities, particularly those with dyscalculia struggle in learning mathematics, have problems with number recognition, counting, remembering numbers and writing numbers. It is important for the child to master the basic number skills thoroughly so that there is clarity in the concepts

- As mathematics is abstract in nature, children with specific Learning disability need to be given concrete, tangible experience about the concept first and then taught the concept itself.
- Each skill needs to be taught till they master it completely.
- Examples from daily life such as 'How many brothers and sisters are you?' need to be woven into daily conversation to reinforce the concept of numbers.

Let us proceed with teaching numbers to a six year old with specific learning Disability

- 1. Make sure the classroom is not noisy and children are not moving around or crowding around the table at the time of your individual interaction with the child.
- 2. Make sure the child sits in one place. In case the child is hyperactive, first make the child and rest of the class do stretches or run in their place and then settle down for this activity.
- 3. Stand or sit facing the child, at his/her level.
- 4. Ask the child to count on their fingers. Be sure to start counting fingers of the left hand for numbers 1-5 and then count 6-10 using fingers of the right hand. This helps them to associate the left to right movement on the page.
- 5. The student should be made to count real objects before being to do any exercise in the notebook-For Example: 1 fan, 2 teachers, 3 water bottles, 4 pencils, 5 books.
- 6. Children with learning deficits learn very well with visual aids and clues. To reinforce the concept, you may ask the child to colour all numbers and to count them, if they first want to draw and colour the objects and then count them, allow them to do so.

- 7. Make sure to display the child's drawing on the class board along with other children's work so that the child feels appreciated and included.
- 8. Encourage children though clarify the error gently so that they know where they need to improve.
- 9. Give extra time to the student to arrive at an answer or write it down.

#### 8.6. Planning lesson for a Child with Intellectual Impairment:

It is important that the child understands the concept of numbers rather than learning them by rote. 'Without conceptual based knowledge, even at basic level students may not be able to apply and generalize these early numeracy skills to higher level math skills.'

A child with Intellectual impairment will learn best:

- In a small group
- By hands on approach.
- When the task is broken down into smaller components and taught in a sequence
- When his/her success is appreciated

Useful strategies for teaching students with intellectual disabilities include the following techniques

though are not limited to them:

- Teach one concept or activity component at a time
- Teach one step at a time to help memorization and sequencin
- Teach students in small groups, or one-on-one, if possibl
- Always provide multiple opportunities to practice skills in a number of different settings
- Use physical and verbal prompting to guide correct responses, and provide specific verbal praise to reinforce these responses \*

If you have a student with intellectual impairment, it is advisable to form groups of 4-5 children for teaching numbers.



- 1. You can start with a small story as to how this picture came to be-' First there was one butterfly who was feeling lonely, then she called out to two of her rabbit friends to come and play with her' and so on up to number five.
- 2. Follow a very easy pace of teaching with such children. It will take him/her some time to master each number.
- 3. You can give him play dough first and show him how to make shape of the number one. This can be done for a few days. Then count 'one table' or 'one fan' or 'one cow'. Follow this by making him write the number and say it. Only after that he will be able to recog-nize number one, write and say it. Only then you should move on to the next number.
- 4. Give him/her time to respond and if his/her response is correct, appreciate him. If it is not correct still appreciate him/her for the effort, but ask to try again.
- 5. Once all the numbers are done make sure that you check his/her counting skills apart from the class-setting. At meal time for instance. 'How many hand-pipes are there?', 'How many plates are these?'
- 6. Make sure to involve different peers in a few paired activities so that the child can build his/her self-esteem by connecting and socializing at par with other children.



#### 9. RECOMMENDATIONS AND SUGGESTIONS

An Inclusive school provides a level playing field for all students irrespective of their abilities, gender, caste, creed or socio-economic status.

Here are recommendations and suggestions that have come after detailed interactions with many teachers, parents, care-givers, school authorities, local community, local authorities, local DPO's, other NGOS's, state authorities, policy makers and experts.

- 1. Specific is effective! Sensitization towards and exact knowledge of various types of disabilities will greatly help Policy makers in shaping policies that are specific and effective.
- 2. A picture is worth a thousand words! The concept of Inclusion can be promoted actively in school textbooks by having representation of children with disabilities.
- 3. Start the day with happiness! When school begins with 'Happiness Hour' and children get to interact with the teacher and among themselves on an informal basis sitting in a circle, it greatly encourages expressive language and peer bonding.
- 4. When each child talks or signs about their likes or dislikes or a new toy or something interesting they did, it creates a common ground for all children and helps knock down social and attitudinal barriers against disabilities. It also helps a child who might be facing challenges in learning, to display an ability that he/she is good at, thus boosting the child's self esteem.
- 5. Primary teacher training: Teachers can be trained in various types of disabilities and allowed to assist resource teachers for some sessions before they start working with children with disabilities in their own classrooms.
- 6. Pre-Primary teacher training: Pre-primary teachers have an even greater role to play in the cognitive development of a child, hence they need to be frequently trained and monitored.
- 7. Braille and Sign language training must be imparted to all teachers.
- 8. Together we win! One parents support group per cluster can tremendously help par-ents of children with disabilities discuss challenges and strategies. This group can also become the missing link between the concerned authorities and school in matters concerning children with disabilities.
- 9. Similarly schools that are situated close together can also work together and share their experiences, strategies and best practices.



- 10. Add Value! It should be a sincere effort on the part of every pre-primary and primary teacher to add value to the child rather than pass him/her on like a parcel on to the next academic session.
- 11. Performance decides pay grade! Pay grades of teachers are for some reason directly proportional to the age group they teach. Whereas primary teachers who shape the life of a child. This acts as a disincentive for primary teachers who maybe only too happy to leave their posts as soon as they are promoted to senior section. In fact many schools in the project area don't have primary school teachers for this reason. Perfor-mance should decide the pay grade this might help in attracting and retaining teachers in primary sections.
- 12. Home visits of the pre-primary and primary school teachers to the residence of the child with disability are of great significance and must be conducted at least once a month. These visits assure parents of the concern for their child in the school, they also help in discussing early interventions or strategies required for a child facing develop-mental challenges.
- 13. The work done by all children should be put up in the class as this make the child with disability feel like an equal.
- 14. It is extremely important that when a child with disability gets promoted, the teacher of the new class is sensitized and knows the complete case-history and challenges faced by the child.

This is crucial in maintaining an even pace for a child facing develop-mental challenges. From the above list, it is clear that none of these changes can be realised on their own. All stakeholdersfrom the policy makers down to the grassroots level—state and local administration, executers, village community and teachers need to be linked strongly.



#### Feeding, playing and communicating with children helps them grow and develop well

#### 0 to 6 months



- Start breastfeeding immediately after birth - within 1 hour
- Exclusively breastfeed for 6 months Do not give any other food or drinks and not even water
- Breastfeed as many times as the child wants
- Breastfeed day and night

#### 0 to 3 months

What you can do Smile at your child, look into child's eyes and talk to your



Provide ways for the child to see, hear, feel and move

#### What children can do Around 3 months, most children can



#### 3 to 6 months

What you can do Have large colourful objects for your child to see and to reach for



Talk to & respond to your child. Get a conversation going with sounds or aestures

#### What children can do Around 6 months, most children can



Reach out for objects

#### Continue breastfeeding during illness

#### 6 to 12 months



- On completion of 6 months, start with small amounts of soft mashed cereal, dal, vegetables and fruits
- Increase the quantity, frequency and thickness of the food gradually
- Understand child's signals for hunger and respond accordingly
  Feed the child 4-5 times a day and continue
- breastfeeding

#### Always use adequately iodized salt for the family

#### Around 9 months most children can

### Sit up from lying position



#### What children can do

Around 1 year most children can

Child needs extra food after illness



Say papa/mama

If the child seems slow, increase feeding, talking and playing. If the child is still slow, take the child to a doctor

#### Feeding, playing and communicating with children helps them grow and develop well

#### 1 to 2 years

#### Feeding





- Continue to offer a wide variety of foods including family foods, such as rice/ chappati, dark green leafy vegetables, orange & yellow fruits, pulses and milk products Feed the child about 5 times a day
- Feed from a separate bowl and monitor
- how much the child eats Sit with the child and help her finish
- Continue breastfeeding upto 2 years or beyond

#### What you can do

Play games like peek-a-boo. Tell the child names of things & people.

What you can do

Give your child clean safe

items to handle and things to

Give your child things to stack up & to put into containers and take out.





Ask your child simple questions Respond to your child's attempts

#### Around 11/2 years most children can

Sit without support





#### What children can do

Around 2 years most children can



Imitate household work

#### Continue breastfeeding during illness

#### 2 to 3 years Feeding



- Continue to feed family foods 5 times a day
- Help the child feed herself / himself
- Supervise feeding
- Ensure hand washing with soap before feeding

#### What you can do

#### Help your child count and compare things; make simple toys for your child.



### Encourage your child to talk & respond to your child's questions. Teach your child stories, songs,

#### Always use adequately iodized salt for the family

Around 21/2 years most children can Point to 4 body parts



eed self spilling little



#### Child needs extra food after illness

#### What children can do

#### Around 3 years most children can Copy & draw straight line



Name 3 out of 4 objects

If the child seems slow, increase feeding, talking and playing. If the child is still slow, take the child to a doctor

(Growth Monitoring Manual, National institute of Public Cooperation and Child Development, accessed on 25-11-19)



#### **Barrier-Free Guidelines for CWSN in SSA**

#### Access to physical environment

- The path from the gate to the school buildings and playground must be clear, levelled.
- All entrances and doorways in the school buildings should be between 4 to 5 feet wide.
- The toilets inside school must be accessible to CWSN. These toilets should be fitted with commode and grab-rails.
- The drinking water outlet should be accessible to CWSN also.
- Avoid sharp turns in the walkways.
- The walkway must be clear of any hung and protruding obstruction such as windows, lights, low branches, flower pots and sign posts etc.
- A handrail should be provided at any dangerous point in the walkway. Guard rails and kerbs are a must in situations where there is a sudden change in the level of height including stairs and verandas.
- The ends of the handrails should be bent downwards to avoid injury.
- Steps should be of equal height and be made even.
- Bright colours (preferably yellow) should be used at every change in slope, at the beginning and ending of a staircase for easy recognition.
- All signage in print, visuals or Braille letters should be put at readable heights (min. 3ft).
- All the surfaces should be non-slippery and steered clear of loose gravel or cobbles.
- Natural lighting should be optimised. There should be enough windows to allow adequate ventilation and lighting.
- Safety of all children should be ensured by provision of hazard-free environment; e.g., no broken window panes, broken steps, broken fixtures and furniture, unsafe ceilings, etc.
- The school / classroom design should enable teacher to pay individual attention to the child,
- including effective positioning and placement, keeping in mind the individual need of CWSN.

#### Guidelines for Children with difficulty in mobility and cerebral palsy:

- Ensure wheelchair accessibility to classrooms, toilets, office rooms, playground etc
- The prescribed gradient of the ramp -1:12 should be strictly adhered to and all ramps
- should be fitted with handrails.
- Aids and appliances like callipers, wheelchairs, crutches, wedges, pencil grips,
- communication boards etc. should be made available
- Ensre adequate space allocation to meet individual needs of children using assistive
- devices.
- All classes and teaching facilities for these children should be provided on the ground floor.
- Arrange for a suitable writer for children with writing difficulties.
- Ensure enough response time to children with cerebral palsy. This is important as they
- might have communication and speech problems.
- (Making Inclusion Work Module 3: Including Children with Cerebral Palsy: MHRD&World
- Bank)

## Government Hospitals, Departments and Aids and Appliances Centres where Children with Disabilities can to be referred for testing

S. No	Name of the institution/ hospitals providing aids / appliances with contact details	Details about officials	Status / details about institution
1	Department of Physical Medicine & Rehabilitation (erstwhile as Rehabilitation and Artificial Limb Centre (RALC), King George Medical University Lucknow	Professor & Head: Dr. Anil. K. Gupta Professor & Head Phone.+91 522- 2611091(O); M:+91 9559399513, Email: dranilaiims @yahoo.co.in	Prosthetic and orthotic facilities / artificial limb / shoes and musculoskeletal problems, brain injury stroke, spinal cord injury, acute and chronic pain management, amputee, work injuries, orthopaedic injuries, sports medicine, paediatric neuromuscular-skeletal problems and the developmental delays, osteoarthritis, metabolic bone diseases, osteoporosis and other related problems.
2	Composite Rehabilitation Centre (Ministry of Social Justice & Empowerment, Govt. of India)	10, Sitapur Eye Hospital, Park Street, Civil Lines, Gorakhpur (UP), Pin-273009, Ph- 0551 220 2024	The scheme of setting up of Composite Regional Centres is a part of overall strategy to reach infrastructure and capacity building at Central, State and District levels and below for awareness generation, training of rehabilitation professionals, service delivery to provide both preventive and promotional aspects of rehabilitation like education, health, employment and vocational training, research and manpower development, rehabilitation for persons with disabilities.
3	Composite Rehabilitation Centre (Ministry of Social Justice & Empowerment, Govt. of India)	Mohaan Road, Lucknow, Uttar Pradesh 226017 Ph- 078394 56178	As above
4	Balrampur Hospital, Lucknow	Golaganj, Kaisarbagh, Lucknow, Pin- 226018 Ph- 7408404693 http://balrampurho spital.com/	Certification Centre for CwDs/PwDs



State Government departments, their officers and addresses whom the teachers/school authorites/ paretns of CwDs can approach for resolution of issues pertaining to disabilities and inclusive education, are as follows:

S. No	Name of the institution with contact details	Details about officials	Status / details about institution
1	UP Education for All Project Board (Sarva Shiksha Abhiyan-UP) Vidya Bhawan Nishatganj, Lucknow Lucknow - 226007  Reception Phone: 0522- 2780995 Email:spdup@rediffmail.co m, upefaspo@gmail.com  Website: http://www.upefa.com	Dr. Vedpati Mishra, I.A.S. State Project Director (SPD) Ph-0522-2780384, 2781128, 2781534(Fax)  Mr. Rakesh Chandra Pandey (Sr. Prof.) M-9415904220 0522-2782683	A full flagged team of professionals (on deputation/ contractual) headed by a special secretary (IAS cadre) officer
2	SCPCR (State Commission for Protection of Child Rights)  Sector K, The Mall Avenue, Lucknow, Uttar Pradesh 226012  Ph- 0522 223 9066	Chairperson / Members	Establishes under act / statutory body
3	State Commissioner for Persons with Disabilities Rajkiya Drishtibadhit Chhatron ka Chhatrawas Basic Siksha Nideshalaya Campus, Vidya Bhawan, Nishatganj Bridge, Lucknow, Uttar Pradesh 226006 <b>Ph-</b> 0522 -278 0911	Commissioner/ Dy. Commissioner( under Right to Persons with Disabilities Act 2016	Commissioner is a principal secretary level officer holding a magisterial level power (it's a quasijudicial body)



### **List of Essential Materials and Equipment**

Domain	List of Essential Materials and Equipment for child development
1. Physical and	
Motor	
Development	
1.a Gross Motor	Large size blocks, wheel toys, tyres, balls of different sizes, balance beams,
Development	play-tunnels, slides, see-saws, swings, hanging bars, beams, tri-cycles, toy carss &vehicles, bean bags, skipping ropes
1.b Fine Motor	Smaller size blocks, lego blocks, beads for stringing, puzzles, button frames,
Development	fastening frames, blunt scissors, hammering toys, sand tools, sewing cards, spools to string, funnel.
2. Social	Activity boxes for role play related to childs experience such as doctors kit,
Development	toy mobile phones, grocery, puppets, toy money, pictures of helpers, dolls,
	doll house, name puzzles, name cards, musical instruments. Activities of
	experience that allow two or more children to work and share together such
	as discarded phones, old cameras.
3. Intellectual or	Sensory material (touch cards, texture books etc), magnifying glass,
Cognitive	dominoes, different shapes, matching games, toy traffic signals, toy trucks,
Development	puzzles, materials for one-to-one interaction such as bingo type games, colour
	lotto, peg boards, colour/shape/number dominoes, staking toys, counting
	books, sorting toys-smallest to biggest, abacus, picture cards, reasoning cards, lock and keys, sound and smelling jards, seeds, small containers and potting
	soil
4. Creative	Varied kind of paints, varied sizes and textures of paper, sketch pens,
Development	plasticine, potters clay, home made dough, mixing bowls, thick crayons,
	brushes with long handles, rolling pins, coloured chalks, paper plates, water
	colours, nuts and bolts, rhythm instruments for music and movements, any
	other material that children can use to represent their world.
5. Language	Concept books, picture books, word less pictures on familiar subjects,
Development	puppets, finger puppets, dress up clothes, stories and rhymes, language
	games, picture charts, textured letters, picture dominoes, letter picture
	puzzles, puzzles of story characters, story cards, picture dictionary, road and
	traffic signals, pictures of plants, animals and people, sand trays, name cards, alphabet chart pasted on the wall, alphabet letter print set and stamp pad,
	storage and display rack for books.
	storage and display rack for books.



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