

Republic of Zambia

MINISTRY OF EDUCATION, SCIENCE, VOCATIONAL TRAINING AND EARLY EDUCATION

BRAILLE SYLLABUS

Special Education

GRADES 1 – 7



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VISION

Quality, life long education for all which is accessible, inclusive and relevant to individual, national and global needs and value systems.

PREFACE (draft)

The syllabus was produced as a result of the Curriculum review process carried out by the Ministry of Education, Science, Vocational Training and Early Education under the auspices of the Curriculum Development Centre (CDC). The curriculum reform process started way back in 1999 when the Ministry of Education commissioned five (5) curriculum studies which were conducted by the University of Zambia. These studies were followed by a review of the lower and middle basic and primary teacher education curriculum. In 2005 the upper basic education National survey was conducted and information from learners, parents, teachers, school managers, educational administrators, tertiary institutions traditional leaders civic leaders and various stakeholders in education was collected to help design a relevant curriculum,. The recommendations provided by various stakeholders during the Upper Basic Education National survey of 2005 and National symposium on curriculum held in June 2009 guided the review process.

The review was necessitated by the need to provide an education system that would not only incorporate latest social, economic, technological and political developments but also equip learners with vital knowledge, skills and values that are necessary to contribute to the attainment of Vision 2030.

The syllabus has been reviewed in line with the Outcome Based Education principles which seek to link education to real life experiences that give learners skills to access, criticize analyze and practically apply knowledge that help them gain life skills. Its competences and general outcomes are the expected outcomes to be attained by the leaners through the acquisition of knowledge, skills, techniques and values which are very important for the total development of the individual and the nation as a whole.

Effective implementation of Outcome Based Education requires that the following principles be observed: clarity of focus, Reflective designing, setting high expectations for all learners and appropriate opportunities.

It is my sincere hope that this Outcome Based syllabus will greatly improve the quality of education provided at.grades 1 -7 as defined and recommended in various policy documents including Educating Our Future`1996 and the `Zambia Education Curriculum Framework `2013.

Chishimba Nkosha
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MINISTRY OF EDUCATION, SCIENCE, VOCATIONAL TRAINING AND EARLY EDUCATIO

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C. N. Sakala (Mrs.)

Director - Directorate of Standards and Curriculum

Ministry of Education, Science, Vocational Training and Early Education

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INTRODUCTION

Braille is a tactile writing system used by the blind learners. It can be used to represent letters of the alphabet, numbers, punctuation marks, including different symbols used in various subjects. Braille is read using the sense of touch.

This syllabus has used the English Braille, which has two levels of encoding at primary level:

- Grade 1 braille: Letter-by-letter transcription, is used in basic literacy
- Grade 2 braille: Abandons the letter-by-letter transcription in several places, adds several abbreviations and contractions

Besides Braille, the syllabus also deals with interpretation of maps, diagrams, charts and other symbols used in various subjects. The syllabus is in line with the Braille primer of 2005. The syllabus is a guide; the teacher is free to use his/her own discretion depending mainly on the related topics in the content subjects as well as the learner's intellectual ability.

TIME ALLOCATION

Three (3) periods of 40 minutes each should be allocated per week.

ASSESSMENT

There are no final examinations for this subject; however, class exercises to enhance braille reading and writing should be given.

RATIONALE

Learners with visual impairments highly depend on the tactile sense to learn. Though Information Computer Technology is becoming quite useful, it cannot replace Braille. Learners with visual impairments should be taught Braille to enable them learn other subjects. In addition most teachers in inclusive settings are unable to help learners with visual impairments because they are not experts in braille; therefore, there is need for braille writing and reading to be timetabled. This will make the subject to be taught systematically.

KEY COMPETENCES	GENERAL OUTCOME
To show ability of differentiating objects	Develop finger manipulation skills
To demonstrate basic skills of braille writing and reading	

TOPIC	SUB -	- TOPIC			CONTENT	
			Specific Outcome	Knowledge	Skills	Values
1.1 Tactile	1.1.1	Differentiation	1.1.1.1 Differentiate textures	Textures of large	Finger dexterity of	Awareness of
activities			of large objects	objects	textures of large	objects in the
				soft or hard objects	objects	environment
				rough or smooth		
				woolen, leather,		
				cloths of different		
				materials, stones,		
				books, floor surfaces		
				etc		
			1.1.1.2 Differentiate textures	Textures of small	Finger dexterity of	Awareness of
			of small objects	objects	Textures of small	objects in the
				soft or hard objects	objects	environment
				rough or smooth		
				woolen, leather		
				soils (sandy, clay,		
				loam), sugar, cereals		
				(millet, sorghum, rice)		
			1.1.1.2 D'CC	etc	D.CC C	T 1 1 '
			1.1.1.3 Differentiate money	Textures of	Differentiation of	Independence in
			notes and coins	Notes and coins	textures of notes and	buying things
				K5, K20, K10, 5n,	coins	
				10n, 50n		

TOPIC	SUB – TOPIC		CONTENT		
		Specific Outcome	Knowledge	Skills	Values
		1.1.1.5 Distinguish different clothes	Types of clothes Trousers, Shirts, Skirts, Dresses	Differentiation of types of clothes	Independence in dressing
		1.1.1.6 Distinguish different fruits	Types of fruits oranges, quavas, banana, mangoes, jam,	Differentiation of types of fruits	Self reliance in feeding
		1.1.1.7 Identify string lines and ropes of different lengths and thickness	Length of strings Strings, fibers and fibers of different sizes	Identification of string lines and ropes of different lengths and thickness	Problem solving in daily life
		1.1.1.8 Identify sources used in making ropes	Sources of ropes Ropes made from sisal, plastic, fibre, grass, animal skin etc	Identification of material used in making ropes	Independence in daily living
		1.1.1.9 Identify the holes of a frame	Semi-braille frames Egg tray, mulabalaba or nsolo, (create frame to look like writing frame)	Identification of holes in semi-braille frames	Orientation in the vertical and horizontal directions

TOPIC	SUB – TOPIC		CONTENT		
		Specific Outcome	Knowledge	Skills	Values
1.2	1.2.1 The six braille	1.2.1.1 Identify Braille dots in	Positioning of dots	Identification of	Appreciation of
Introduction	Dots	a cell	Stylus and writing	braille holes	writing tools
to braille			frame	Ability to make good	
				round holes	
		1.2.2.1 Practice sitting on the	Body positioning	Identifying the	Accuracy in braille
	1.2.2 Body Posture	chair with the feet		correct body posture	writing
		firmly on the floor			
		1.2.2.2 Uphold the body trunk	Body positioning		
		Upright			
	1.2.3 Braille Writing	1.2.3.1 Identify different	Writing equipment	Identification of	Appreciation of
		types of writing	Hand frame, pocket	braille writing	writing equipment
		equipment	frame, stylus, braille	materials	
			paper etc		
		1.2.3.2 Demonstrate braille	Pre-Braille writing	Positioning of the	Appreciation of
		writing	Upper, bottom and	writing equipment	writing equipment
			inside parts of writing		
			frames,		
			Inserting braille paper,		
			Positioning a stylus in		
			the cell, and		
			Making full dots		

KEY COMPETENCES	GENERAL OUTCOME
To show ability of differentiating objects	Develop tactile sense, writing and reading the
To demonstrate skills of writing and reading the Braille	Braille Alphabet
alphabet	
To demonstrate skills of computation using the plus and	
minus braille symbols	

TOPIC	SUB - TOPIC		CONTENT		
		Specific Outcome	Knowledge	Skills	Values
2.1 Tactile	2.1.1 Finger	2.1.1.1 Assemble jig-saw	Puzzles	Spatial skills in	Critical thinking
activities	Manipulation	Puzzles	Fitting, assembling	assembling puzzles	in assembling puzzles
			sorting		
		2.1.1.2 Mould objects from	Moulding	Creativity in	Fingers becoming
		clay/plasticine		moulding, sorting,	flexible
				threading, twisting	
		2.1.1.3 Sort and thread	Sorting and	tying and plating	
		beads and seeds	threading e,g of		
			bottle tops		
		2.1.1.4 Close and open bottle	Twisting	_	
		tops	Identification of		
		T.	grooves		
		2.1.1.5 Tie knots, thread beads	Tying and untying,		
			weaving, Plating		
		2.1.1.6 Plate simple items using	Tying		
		rope, fiber or grass	Plaiting		
		2.1.1.7 Demonstrate screwing	Screwing and	Finger	Appreciation of living
		and unscrewing nuts and	unscrewing	manipulation from	independently
		bolts		screwing and	
				unscrewing	

TOPIC	SUB - TOPIC			CONTENT	
		Specific Outcome	Knowledge	Skills	Values
		2.1.1.8 Identify parts of clothes	Inside and outside,	Finger dexterity in	Application to daily
			back and front, top	zipping, buttoning	life
			and bottom,	and buttoning	
			zip and zipping,		
			buttons and		
			buttoning.		
	2.1.2 Body Posture	2.1.2.1 Uphold the body truck	Body positioning	Identifying the	Attentiveness to doing
		upright		correct body	work
				posture	
	2.2.1 The	2.2.1.1 Identify letters of the	LETTERS OF	Tracking letters of	Critical thinking in
2.2	English	English alphabet	THE ALPHABET	the alphabet	communication
D :11	Alphabet		A-J, Full stop		
Braille			Local language		
Writing and Reading			words with A – J		
Reading			K – T, comma,		
			Local language		
			words with A – T U – Z and W	_	
			Local language		
			words with A – Z		
	2.2.2 Mathematical	2.2.2.1 Describe Mathematical	Plus sign (+), Minus	Identifying	Application to daily
	symbols	Symbols	(-) sign, Equal sign	computational	life
	Symbols	Symbols	(=)	signs	IIIC
			(-)	515115	
2.3	2.3.1	2.3.1.1 Play computer games	Computer games:	Ability to play	Creativity in daily life
Information	Computer games		-Mathematics	computer games	
Computer			-Science		
Technology			-Language		

KEY COMPETENCES	GENERAL OUTCOME
To demonstrate the skill of writing and reading measurements in braille	To recognise, Write and read Simple Upper Wordsigns
To develop the skill of writing and reading Simple Upper Wordsigns	

TOPIC	SUB - TOPIC	Specific		CONTENT	
		Outcome	Knowledge	Skills	Values
3.1	3.1.1 Fractions	3.1.1.1	Fractions	Ability to use	Appreciation of
Measurement		Demonstrate	/ 3/4 3 1/4	braille fractions	computational symbols
		symbols for			
		oblique stroke			
		(for fractions)			
	3.1.2 Multiplication and Division	3.1.2.1	Multiplication (×)	Identifying and	Application to daily
		Demonstrate		using the	life
		symbols for	and Division (÷)	Multiplication	
		Multiplication		and Division	
		and Division		symbols	
	3.1.3 Distance	3.1.3.1	Braille Rulers	Accuracy in using	Appreciation of
		Demonstrate how	30 cm ruler	the braille rulers	measurements in daily
		to use the Braille	1 meter		life
		ruler	Approximation		
	3.1.4 Dates	3.1.4.1 Explain	Ordinal	Recognising	Creativity in daily
		writing of dates	numbers 1st 2nd 3rd 4th	ordinal numbers	activities
			1 2 3 4	and dates	
			Date writing: 4 th June 2013		
	3.1.5 Time	3.1.5.1 Illustrate	Time	Tracking of	Appreciation of time in
		how to use raised	Reading time	figures on the	doing things
		clock faces		clock faces	

TOPIC	SUB - TOPIC			CONTENT	
		Specific Outcome	Knowledge	Skills	Values
	3.1.6 The abacus	3.1.6.1 Illustrate how to use the abacus	Computations using Abacus	Ability to use the Abacus in solving problems	Appreciation of the Abacus
3.2 Braille Writing and Reading	3.2.1 Special signs	3.2.1.1 Recognise special signs	5 Common Wordsigns and for of the with. article "a" with any of the 5 common words: e.g. and a and with a The semicolon (;)	Recognizing special common words	Appreciation of short abbreviations in serving energy and paper
	3.2.2 Simple Upper Wordsigns	3.2.2.1 Identify Simple Upper Wordsigns	and for of the with Exclamation mark Query	Identification of simple upper groupsigns	Self esteem in writing and reading
		3.2.2.2 Recognise Simple Upper Wordsigns	Wordsigns e.g. b – but, C – can, D - do	Ability to read wordsigns	Awareness of simple wordsigns

KEY COMPETENCES	GENERAL OUTCOME
To demonstrate the ability to divide, multiply and use inequality braille symbols	Distinguish, write and read Simple Upper Groupsigns
To develop the skills of using Simple Upper Groupsigns	

TOPIC	SUB - TOPIC		CONTENT		
		Specific Outcome	Knowledge	Skills	Values
4.1	4.1.1 Mathematical	4.1.1.1 Identify Braille	Numbers (4,500)	Identifying the	Self confidence in
Measurement	symbols	symbols	Inequality ($< > \neq$)	braille	solving problems
			Time: (18:00, 12:15	Mathematical	
			pm, 10:30 am),	symbols	
			braille rulers, and		
			braille tapes.		
4.2 Upper	4.2.1 Five Upper	4.2.1.1 Discus Five Upper	ch gh sh th wh	Identification of	Self confidence in
	Groupsigns with	Groupsigns (with		five upper	solving problems
Groupsigns	'h'	'h')	The apostrophe (`)	groupsigns	
	4.2.2.E. H	400111 dc F	1	T1 CC	
	4.2.2 Four Upper	4.2.2.1 Identify Four	ed er ou ow	Identifying	Critical thinking in
	Groupsigns	Upper Groupsigns	(2 with e & 2 with o)	the four	communication
				groupsigns	
			The colon (:)		
			Quotation marks (" ")		

TOPIC	SUB - TOPIC			CONTENT	
		Specific Outcome	Knowledge	Skills	Values
	4.2.3 Last Four Upper	4.2.3.1 Identify Last Four	st ar ing ble	Identifying the	Appreciation of the
	Groupsigns	Upper Groupsigns		last four upper	groupsigns to the
			hyphen	groupsigns	learning of language
		4.2.3.2 Discus Word	D _o	Recognising	Awareness of word
		division	Be - lief	words divided in passages	division in language
				passages	
		4.2.3.3 Compound Words	a) With a	Differentiating	Application to language
			hyphen, e.g. arc-lamp	words with a	
				hyphen from	
			b) Without a hyphen, e.g.	those without	
			aircraft		
4.3 Names	4.3.1 Capital letters	4.3.1.1 Describe use of	E.g Jacob Nyambe	Recognising	Awareness of names in
		capital letters in Names	Robert Child	capital letters in	passages
			Mr A. B. Lipenda	names	
			Mrs A B Lipenda		

KEY COMPETENCES	GENERAL OUTCOME
To develop the skills of writing and reading Lower Signs To develop the skills of using braille in solving problems in	Recognise, write and read Lower Groupsigns
content subjects	

TOPIC	SUB - TOPIC		COI	NTENT	
		Specific Outcome	Knowledge	Skills	Values
5.1 Measurement	5.1.1 Decimals	5.1.1.1 Identify Braille symbols for Decimals	Decimals 4.5 0.005	Identifying brailled decimals	Analysis of decimals in number and notation
	5.1.2 Degrees	5.1.2.1 Read and write Degrees	Degrees 45 degrees 0.5°	Recognise brailled degrees	Awareness of degrees in computations
	5.1.3 Mathematical aids	5.1.3.1 Identify Mathematical aids	Area and volume aids, scales and talking watches. cuberithm boards, tailor frames	Identifying Mathematical aids	Creativity in solving problems
	5.1.4 Percentages and Ratios	5.1.4.1 Identify percentages	Percentages (%) 5% Ratio 2:3	Ability to solve related problems	Application to daily life
	5.1.5 Roman Numerals	5.1.5.1 Identify Roman Numerals	Roman Numerals I, IV, D, CV	Identifying roman numerals	Awareness of roman numerals
	5.1.6 Dates	5.1.6.1 Describe ways of writing dates	Dates 2 nd January 2012 2/1/2012 02/01/12 2.1.2012	Identification of variations in writing of dates	Awareness of variation in writing of dates
	5.1.7 Units	5.1.7.1 Identify units for measurement	Units Area: (cm²) Volume: (cm³)	Accuracy in writing the units	Awareness of the units
		The Square sign	The square (ING)		

TOPIC	SUB – TOPIC		CONTENT		
		Specific Outcome	Knowledge	Skills	Values
5.2 Lower	5.2.1	5.2.1.1 Describe Lower	Beginning of a word or braille	Identifying lower	Awareness of
Signs	Lower	Groupsigns at the beginning	line: (Be con dis com)	groupsigns	the lower
	Groupsigns	of a word or braille line	The dash ()		groupsigns
			Shortforms (bec, bec beh)		
		5.2.1.2 Identify some	Middle of a word:	Classifying lower	Problem solving
		Lower Signs in the middle of a	as the see did ff as	signs	in language and
		word	ea bb cc dd ff gg Round brackets or Parentheses		other subjects
		5.2.1.3 Discus Lower	Any Part of a word:	Identifying lower	Awareness of
		Groupsigns in Any		groupsigns	the lower
		Part of a word	<u>en</u> <u>in</u>		groupsigns
	5.2.2 Lower	5.2.2.1 Discus Lower	Spaced From All Other Signs:	Identifying lower	Application in
	Wordsigns	Wordsigns That Must		wordsigns	language and
		be Spaced From All	be were his was		other subjects
		Other Signs			
		5.2.2.2 Identify Lower	Spaced but not in all cases:		
		Wordsigns That Must			
		be Spaced From All	enough in,		
		Others but May in Some Cases be in Contact with	W/i4h hamban an dash		
			With hyphen or dash		
		Punctuation Signs 5.2.2.3 Discus Lower	Adjoins words: to into by		
		Wordsigns That May Only be	Aujoms words. to mio by		
		Used Adjoining the Word	Shortforms: td for today, tm for		
		That Follows	tomorrow		

TOPIC	TOPIC SUB - TOPIC			CONTENT	
		Specific Outcome	Knowledge	Skills	Values
5.3 Information Computer	5.3.1 Keyboard functions	5.3.1.1 Demonstrate how to use the key board for Typewriter and Computer	Key board functions	Tracking and orientation on key board	Problem solving in various subjects using the computer
Technology	5.3.2 Cell phone	5.3.2.1 Discuss the use of cell phones	SMS, general communication	Communication using a cell phone	Effective communication in daily life
	5.3.3 The Perkins Brailler	5.3.3.1 Demonstrate how to use the Perkins Brailler	Key board functions	Tracking and orientation on key board	Effective communication in daily life

KEY COMPETENCES	GENERAL OUTCOME
	Distinguish, write and read Composite signs
To develop the skill of writing and reading Composite	
signs	
To develop the skill of using Braille in solving problems in	
content subjects	
To develop the skill of using key board functions for Type-	
righter, Computer and Perkins Brailler	

TOPIC	SUB - TOPIC		CONT	ENT	
		Specific Outcome	Knowledge	Skills	Values
6.1	6.1.1	6.1.1.1 Discuss type-	Keyboard functions:	Effective use of	Application in
Information	Key board	righter and computer	Typing and	the typerighter	various subjects
Computer Technology	functions	key board functions	use of speech software	and/or computer	
6.2	6.2.1	6.2.1.1 Identify Initial	Composite signs	Identifying initial	Awareness of
Composite	Initial Wordsigns	Wordsigns with	With Dot 5: D – M	composite	initial composite
Wordsigns		dot 5	With Dot 5 N – U	wordsigns	wordsigns
			Shortforms		
		6.2.1.2 Identify last group with dot 5	Dot 5 with W, Y, the, ch, th, wh, and ou		
		6.2.1.3 Identify	Two Dots: 4 5:		
		Wordsigns with Two Dots 4 5	U, W, the, th, wh		
		6.2.1.4 Identify	Three Dots 4 5 6:		
		Wordsigns with Three Dots 4 5 6	c, h, m, s, w		
	6.2.2	6.2.2.1 Identify Final	First Group of Final Groupsigns:	Identifying final	Awareness of
	Final Groupsigns	Groupsigns	-ance, -ence, -sion, -less -tion, -ness	composite	final group of
			Second Group of Final Groupsigns -ound, -ong, -ount, -ment	groupsigns	composite groupsigns
			Third Group of Final Groupsigns -ful, -ity, -ation, -ally		

Grade 7

KEY COMPETENCES	GENERAL OUTCOME
To demonstrate skills of interpreting embossed maps and	Develop tactile skills in graphics interpretation
diagrams	
To show abilities of drawing and interpreting braille lines	
and shapes	
To show ability of drawing braille lines, write number	
bases and roman numerals	
To show ability of effective communication in braille	

TOPIC	SUB – TOPIC		CONTENT			
		Specific Outcome	Knowledge	Skills	Values	
7.1 Graphics	7.1.1 Maps in Social and	7.1.1.1 Locate embossed	Map of Zambia	Tracking and location of	Independence in daily	
Interpretation	Development Studies	features on Maps in Social	Map of Africa	data on maps, diagrams	living	
		and Development Studies	Map of the World	and charts		
			Zambia and its			
			neighbours			
			(political, relief,			
			physical etc)			
	7.1.2 Diagrams in	7.1.2.1 Identify embossed	Heart, lungs, water			
	Integrated Science	features of diagrams in	circle etc			
		Integrated Science				
	7.1.3 Expressive Arts	7.1.3.1 Discuss Diagrams	Art works, Home			
		in Expressive Arts	Economics tools			
			etc			
7.2	7.2.1 Integers	7.2.1.1 Draw Braille	X-axis	Identifying the number	Problem solving	
Measurement		number lines	Y-axis	line	involving number	
			Positive and		lines	
			Negative numbers			

TOPIC	SUB – TOPIC		CONTENT		
		Specific Outcome	Knowledge	Skills	Values
	7.2.2 Number Bases	7.2.2.1 Discuss symbols for Number Basis	E,g Base 5 Base 10	Identifying number bases	Problem solving using number bases
	7.2.3 Shapes	7.2.3.1 Explain properties of some geometrical shapes	e.g. rectangular prism, cube)	Ability to track various geometrical shapes	Self confidence in the use of geometrical shapes
		7.2.3.2 Identify types of lines	Vertical, horizontal, parallel, and diagonal	Identifying embossed vertical, horizontal, parallel and diagonal lines	Appreciation of position of lines
	7.2.4 Angles	7.2.4.1 Describe various angles.	Right angle, acute angle, straight line (180°), complete revolution (360°)	Tracking of angles in given shapes	Awareness of positions of things in school, home and general universe
		7.2.4.2 Approximate angles	Rounding off: Approximate angles	Ability to draw, measure and approximate angles	Application in daily life

BRAILLE SCOPE & SEQUENCE CHART: GRADES 1 – 7

TOPIC	GRADE 1	GRADE 2	GRADE 3	GRADE 4	GRADE 5	GRADE 6	GRADE 7
Tactile Activities	Textures of large objects	Positioning of dots	Threading				
	Textures of	using semi- braille	Sorting				
	small objects	frames	Twisting				
	Textures of Notes and coins Types of cloths	Positioning of dots using a stylus in a handframe	Puzzles				
	Types of fruits Length of strings Sources of ropes Semi-braille frames (egg trays etc)	Screwing and unscrewing nuts and bolts zipping, buttoning and tying					

	Body	Body	Meaning of	Simple Upper	Lower signs:	Composite Signs:
Braille Writing	positioning	positioning	Words:	Groupsigns:	be con dis	
& Reading			simple,	and for of the	<u>com</u>	with Dot 5: D –
	Writing	Positioning	upper,	with		M & N – U
	equipment	a stylus in	wordsign		Dash ()	
		the cell,		Five Upper		Shortforms
	Pre-Braille		Wordsigns	Groupsigns with	Two of these	
	writing	Making full	e.g. B – but,	h	syllables in a	With Two Dots, 4
		dots,	C – can, D -		sequence	5: upon, word,
		he alphabet:	do	Four Upper		these, those,
				Groupsigns (two	ea bb cc dd	whose
		A - J	5 Common	with e and two	<u>ff</u> <u>gg</u>	
		K-T	Words: and,	with o)		With Three Dots
		And $U - Z$	for, of, the,		Round	4 5 6: cannot,
		& W	with	Last Four Upper	brackets or	had, many, spirit,
				Groupsigns	Parentheses	world, their
			5 Common	st, ar, ing, ble		
			Words with		<u>en</u> <u>in</u>	First Group of
			article A.			Final Groupsigns:
					<u>be were his</u>	ance, -ence, -sion,
			Semicolon (;)		<u>was</u>	-less -tion, -ness
					enough in,	Third Group of
						Final Groupsigns
					With highen	-ful, -ity, -ation,
					or dash	-ally
					to into by	
					Shortforms:	
					td for today	

Mathematical	Mathematic	Numbers	Numbers	Dates:	Percentages (%)	Angle signs
signs	al symbols	2, 6, 10	4,500	2.1.2012	5%	Nets of
	(+), (-), (=)	Computing	Ciana.	2.1.2012	Ratio	cuboids and
	The	Computing	Signs: < > ≠	2/1/12	Ratio	
	The	signs $(\times \div)$	< <i>> 7</i>	2/1/12	D N 1-	pyramids
	Numeral	F 4'	D.	02/01/12	Roman Numerals	C 1 '41
	Sign	Fractions	Dates:			Graphs with
		(oblique sign	2 nd January 2012			scales
		/)				D: .
		0 11 1	D . 1 .			Picture
		Ordinal	Decimal signs			graphs
		Numbers: 1 st 2 nd 3 rd 4 th				
Mathematical		Raised clock	Braille rulers	Area and		
Aids		faces	Braille tapes	volume aids,		
			Abacus,	scales and		
				watches.		
				Cuberithms		
				Tailor frames		
Names		Own name	Names:	Names of		
		Capital letter	Jacob Nyambe	towns and		
		sign	Mr A B Lipe	countries		
Information	Computer	Parts of the	The Perkins Braille	er- functions	Internet, Google se	earch, e mail
Computer	games	computer			address	·
Technology		1	Typewriter			
		The key	*1			
		board				
		functions				
Graphic	Diagrams, Ch	arts, Pictures an	d Models in subjects	s taken by learner	·'S	
Interpretation		,	- J	,		