



THE REVOLUTIONARY GOVERNMENT OF ZANZIBAR

MINISTRY OF EDUCATION AND VOCATIONAL TRAINING

INFORMATION AND COMMUNICATION TECHNOLOGY

SYLLABUS FOR PRIMARY SCHOOLS

STANDARD V– VI

2009

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PREPARED BY:
THE DEPARTMENT OF CURRICULUM AND EXAMINATIONS
P.O. BOX 3070
ZANZIBAR.

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INTRODUCTION

This syllabus is for a new subject called Information and Communication Technology (ICT) to be taught in Standard V and VI. ICT has been introduced in order to strengthen pupils' ability to search for knowledge, skills and information using both traditional and modern technology. This introduction gives explanations on the background to the improved (2009) curriculum and the importance of ICT. These are followed by the Goals of Education in Zanzibar, Objectives of Primary Education in Zanzibar and lists of general subject competences and objectives. Then there are explanations on both the selection of topics as well as the components of the teaching/learning tables.

Reasons for the Development of the New Primary Education Curriculum

In 2008/09 the Revolutionary Government of Zanzibar undertook the revision, condensation and improvement of the curriculum for primary education. Its goal was to make the curriculum conform with the focus of Zanzibar Education Policy (2006). The policy seeks to improve the unsatisfactory structure, quality and relevance of primary education. Furthermore, it makes pre-primary education part of basic education. Similarly, it reduces the primary education from seven (7) to six (6) years. Finally, the policy provides that English shall be used as a medium of instruction for some of the subjects in standard V and VI. Other reasons for the revision, condensation and improvement of the curriculum were as follows:

- Government response to global trends regarding social, scientific and technological changes/advancements.
- Government response to public pressure for expanding access and promoting the quality of education.
- Government response to the findings of the 2008 Needs Assessment Survey for Primary Curriculum Review.

The 2008 survey pointed out the following weaknesses in the 1998 curriculum:

- Failure to promote communication skills and creative thinking.
- Inadequate focus on the needs of the disadvantaged learners/pupils, cross-cutting issues, life-skills and globalization.
- The predominance of teacher-centred approaches (instead of learner-centred ones).

- Overuse of theoretical teaching/learning (instead of applying interactive or participatory techniques).
- Minimal assignments geared to English usage and the teaching/learning of English language.

In response to those challenges the government made some basic decisions. For example, it directed that primary education shall be competence – based in order to enable the pupils to develop basic skills and attitudes needed by the society. The other decision was that new subjects be designed and developed to cater for the rapid scientific and technological changes taking place. ICT is one of the subjects introduced for that purpose. It was further resolved that the primary education curriculum be linked carefully with both the pre-primary and secondary level curricula. This caution aimed at avoiding repetition or duplication of subject content across these levels.

Importance of ICT

ICT as a subject shall enable pupils to applying both traditional and modern ICT facilities to access new knowledge, skills and attitudes. As a result it will facilitate the process of teaching and learning very considerably. Furthermore, ICT shall enable pupils to acquire and exchange information, knowledge and skills thus eventually accelerating both personal and community development.

Goals of Education in Zanzibar

The overall goals of education in Zanzibar are:-

1. To promote and sustain cultural values, attitudes, customs of the peoples of Zanzibar/Tanzania to enhance unity and cultural identity.
2. To promote the acquisition and appropriate use of all forms of knowledge and skills for the full development of the human personality and quality life improvement of the society.

3. To enable every citizen to understand and respect the fundamentals of the National Constitution as well as the enshrined human and civic rights, obligations and responsibilities.
4. To promote and enable rational use, management and conservation of the environment.
5. To instill love and respect for work, self and wage employment, self work discipline and best performance.
6. To inculcate principles and practices of tolerance, peace, love, justice, understanding, Human Rights and fundamental freedoms, national unity and international cooperation as enshrined in the international basic charters.

General Objectives of Primary Education

The general objectives of primary education in Zanzibar are as follows:

1. To enable all children of school going age develop and sustain strong foundations of skills in reading, writing, counting, creativity and communication in Kiswahili, English and other foreign languages.
2. To enable learners understand the application of science and technology and recognize its contribution to national and international development.
3. To lay, develop and sustain in learners strong foundations of thinking skills and inquisitiveness in order to understand their environment and social relationships.
4. To enable the learners understand how past events influence present events as well as future ones.
5. To discover learner's talents from their early age in order to sustain and develop them.
6. To lay strong foundations of skills of observation, thinking and co-operation in solving problems which hinder their personal development and the development of their society.
7. To prepare learners for joining secondary education.
8. To enable the learners develop mental abilities and interest in continuous search for knowledge.

9. To familiarize learners with productive vocational activities and promote their readiness for fulfillment of their social responsibilities.
10. To enable learners recognize and uphold national unity as well as the cooperation between their nation and other nations and people.
11. To enable the learners develop acceptable moral, cultural and ideological values in order to promote patriotism and enable them to understand their country's historical, political and social situation.
12. To develop and sustain learners' self – discipline, observance of gender equality and maintenance of personal and other peoples' health.
13. To enable the learners develop habits of smartness, cleanliness and proper use of their leisure time.
14. To promote learners' love for their environment and interest in environmental conservation.

General Subject Competences

This curriculum is competence - based. Therefore, after studying ICT up to Standard VI the pupils shall demonstrate ability to:

1. Identify and use communication media.
2. Use libraries and ICT facilities for acquiring information, knowledge, skills and entertainment.
3. Use computer as an information and communication device.

General Subject Objectives

The objectives of teaching ICT in primary schools are to enable the pupils to:-

1. Acquire skills of identifying and using communication media.
2. Understand the application of ICT facilities for communication and acquisition of useful skills.
3. Develop skills of using computer and internet for communication.

4. Understand the application of library facilities for acquiring knowledge and useful skills.

Selection of Topics

This syllabus consists of topics picked from two themes: information and communication. The topics and sub-topics are arranged in such away that knowledge and skills acquired in Standard V form the basis for learning other aspects of the given topics in Standard VI. Teachers are advised to teach related topics in the same order as presented in the syllabus. The following table shows the selected main topics, the distribution of their sub-topics in the two classes and their sequence.

S/NO.	MAIN TOPICS	STANDARD V	STANDARD VI
1.	Telephones.	√	√
2.	Postal services.	√	√
3.	Publications.	√	√
4.	Library.	√	√
5.	Radio.	√	√
6.	Television.	√	√
7.	Introduction to Computer.	√	√
8.	Internet.	√	√
9.	Electronic mail.	√	√

Structure of the Syllabus

This syllabus consists of two main sections: the preliminary matters and the teaching and learning tables.

Preliminary matters

This section consists of the cover page, title page, issuing authority page and the table of contents. Then there is information on the background to the new curriculum, Goals of Education in Zanzibar and General Objectives of Primary Education. Other matters include the general competences in ICT, the general objectives of ICT and information on the components of the teaching/learning tables.

Teaching and Learning tables

There are two teaching/learning tables carrying content for Standard V and VI. Each table starts with lists of class level competences and objectives. Those are followed by a table with six columns with the following headings: topics/sub-topics; specific objectives; teaching/learning techniques, materials/aids; assessment and periods. The following are explanations on each of the components listed above.

Topics/Sub-topics

The main topics reflect the subject content to be taught/learnt. Under each main topic follow its sub-topics. These determine the scope of coverage of the main topic.

Specific Objectives

These are statements about knowledge, skills and attitude that learners should achieve after being taught or learning the given sub-topic. For each specific objective there is corresponding content in the form of a sub-topic. Specific objectives suggest the scope of the content to be taught/learnt at each level. They also guide the teacher in the development of lesson objectives as well as in the teaching process. Specific objectives focus each pupils. Therefore, teachers ought to apply sign language and hearing aids for pupils with hearing impairment. Tactile materials, materials in Braille notation and the Braille machine shall be applied for pupils with visual impairment. For the other categories of pupils with special needs, teachers should follow current policies and procedures as well as apply appropriate techniques and materials.

Teaching/Learning Techniques

This column consists of some recommendable teaching/learning techniques such as brain storming, demonstration, study visits, short lecture and group discussion. Participatory or learner – centred techniques are proposed because they promote interaction and activity – based teaching and learning. Therefore, they enable the pupils to construct meaning from what they learn. Teachers are encouraged to read extensively materials on participatory or learner – centred techniques. This will enable them to select the most suitable techniques to apply when teaching.

Materials/Aids

These are suggestions of teaching materials/aids for given topics/sub-topics. Textbooks and teacher’s guides are among the essential textual materials. Teachers are encouraged to apply other suitable resources at their disposal. Moreover, it is advisable for teachers to improvise or make materials/aids for effective teaching/learning of this subject. Furthermore, pupils should be encouraged to improvise, design and make teaching/learning aids using inexpensive raw materials available in their environment.

Assessment

In this column are given suggestions about assessment of pupils' achievement of teaching/learning objectives. Assessment should be done on all instructional objectives. Varieties of ways of assessment should be applied and given daily, weekly, monthly, at the end of the term and at the end of the academic year.

Periods

This column shows the estimated number of periods for teaching a given topic. They are calculated on the basis of the number of days in the academic year (224) divided by the number of teaching days per week and multiplied by the number of periods per week. The total number of periods is further divided by the number of sub-topics in the syllabus to get the average number of periods per sub-topic. Four (4) periods are reserved for tests and examinations. However, the teacher may slightly adjust the estimated number of periods for a given topic or sub-topic depending on the needs of his/her class.

ICT as a subject has been allocated two (2) periods per week. From Monday to Thursday, during the morning shift, the duration of each period shall be 40 minutes. It shall be 35 minutes in the afternoon shift. On Fridays the duration of each period shall be 30 minutes only. The allocated time should be utilized fully. Lost instructional time should be compensated through the school's local arrangements.

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ZANZIBAR**

STANDARD V

COMPETENCES

After studying ICT subject in Standard V the pupils shall demonstrate the ability to:-

1. Identify means of communications and use them appropriately.
2. Identify and use postal services appropriately.
3. Collect information from various mass communication media and use it appropriately.
4. Identify and apply library regulations and use the library facilities effectively.
5. Identify and explain basic computer elements and use the computer operating system.
6. Explain the meaning of internet and access it.
7. Register e-mail address and send and receive e-mail messages.

OBJECTIVES

After studying ICT subject in Standard V the pupils shall be able to:-

1. Know the various means of communications and their application.
2. Acquire skills of identifying library regulations and using library facilities effectively.
3. Understand postal services and their application.
4. Understand basic computer elements and computer operations.
5. Acquire skills of accessing and applying internet services.

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/ LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
1. TELEPHONE a) Communication. .	The pupil should be able to: (i) Explain the meaning of communication.	By using the brainstorming technique, the teacher to guide pupils to explain the meaning of communication.	1. Pictures that show different means of communication. 2. Tactile pictures showing different means of communication.	Can the pupil explain the meaning of communication?	2
	(iii) Identify different means of communication.	By using the brainstorming technique the teacher to guide pupils to identify different means of communication.	Means of communication devices, (example drums, telephones ropes and fire).	Can the pupil identify different means of communication?	
b) Uses of Telephones.	The pupil should be able to: (i) Mention the applications of telephones.	By using the brainstorming technique, the teacher to guide pupils to mention the applications of telephones.	1. Telephones. 2. Models of telephones.	Can the pupil mention the applications of telephones?	2

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/ LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
	(ii) List the places where telephone use is not allowed.	By using the question and answers technique, the teacher to guide pupils to list the places where telephone use is not permitted.	1. Drawings /diagrams of the places where telephone use is not permitted. 2. Tactile drawing/ diagrams of the places where telephone use is not permitted. 3. Diagram of symbols of restriction of telephones use. 4. Tactile diagram of symbols of restriction of telephones use.	Can the pupil list the places where telephone use is not permitted?	
c) Care of Telephones.	The pupil should be able to: (i) Identify things that cause defects to the telephones.	By using the question and answers technique, the teacher to guide pupils to identify things that cause defects to the telephones.	1. Pictures/ charts that show things that can cause defect to the telephones (e.g. water, fire, chemicals).	Can the pupil identify things that cause defects to the telephones?	2

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/ LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
			2. Tactile pictures/charts showing things that can cause defect to the telephones.		
	(ii) List methods of handling telephones.	By using the brainstorming technique, the teacher to guide pupils to list the methods of handling telephones.	1. Mobile phones. 2. Table phones. 3. Model of mobile phones. 4. Model of table Phones. 5. Telephone user manuals. 6. Telephone user manuals in Braille notation.	Can the pupil list the methods of handling telephones?	
d) Emergency Telephone Numbers.	The pupil should be able to: (i) Explain the	By using the short lecture technique, the teacher to guide pupils to explain the meaning of emergency telephone	1. Pictures / charts that show the incidents for making emergency	Can the pupil explain the meaning of	2

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/ LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
	meaning of emergency telephone numbers.	numbers.	calls, (e.g. case of fire and accident). 2. Tactile pictures/ charts showing the incidents for making emergency calls.	emergency telephone numbers?	
	(ii) Explain the importance of emergency telephone numbers.	By using the group discussion technique, the teacher to guide pupils to explain the importance of emergency telephone numbers.	1. Pictures/ charts that show the incidents of making emergency call, eg fire break out. 2. Tactile pictures charts showing the incidents for making emergency call.	Can the pupil explain the importance of emergency telephone numbers?	
	(iii) Identify places where emergency telephone numbers	By using the question and answers technique, the teacher to guide pupils to identify places where	1. Drawings/ diagrams of the places where emergency telephone	Can the pupil identify the places where emergency	

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/ LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
	are applied.	emergency telephone numbers are used.	numbers are used. 2. Tactile drawings/ diagrams of the places where emergency telephone numbers are used.	telephone numbers are used?	
	(iv) List the emergency telephone numbers.	By using the individual assignment technique, the teacher to guide pupils to list emergency telephone numbers.	1. Chart that shows emergency telephone numbers. 2. Tactile chart showing emergency telephone numbers.	Can the pupil list down emergency telephone numbers?	
2. POSTAL SERVICES. a) Sending and Receiving Registers.	The pupil should be able to: (i) Send various articles using register.	By using the field trip technique, the teacher to guide pupils to visit post office to see how to send various articles using register.	1. Registered envelope. 2. Registered envelope written in Braille notation.	Can the pupil send articles using register?	3

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/ LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
	(ii) Receive various articles using register.	By using the field trip technique, the teacher to guide pupils to visit post office to see how to receive various articles using register.	1. Registered envelope. 2. Registered envelope written in Braille notation.		
b) Sending and Receiving Money Orders.	The pupil should be able to: (i) Send money using money order.	1. By using the demonstration technique, the teacher to guide pupils to fill appropriate forms of money order. 2. By using the field trip technique, the teacher to guide pupils to visit post office to see how to send money using money order.	1. Money order form. 2. Money order form in Braille notation.	Can the pupil send money using money order?	3
	(ii) Receive money using money order.	1. By using the demonstration technique, the teacher to guide pupils to fill appropriate forms of money order.	1. Money order form. 2. Money order form in Braille notation.	Can the pupil receive money using money order?	

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/ LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
		2. By using the field trip technique, the teacher to guide pupils to visit post office to see how to receive money using money order.			
c) Express Mail Services.	The pupil should be able to: (i) Send items using express mail services.	1. By using the demonstration technique, the teacher to guide pupils to fill appropriate form of express mail services. 2. By using the field trip technique, the teacher to guide pupils to visit post office to see how to send money using express mail services.	1. Express mail services form. 2. Express mail services form in Braille notation. 3. Textbook. 4. Textbook in Braille notation.	Can the pupil send money using express mail services?	3

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/ LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
	(ii) Receive money using express mail services.	<p>1. By using the demonstration technique, the teacher to guide pupils to fill appropriate forms of express mail services.</p> <p>2. By using the field trip technique, the teacher to guide pupils to visit post office to see how to receive money using express mail services.</p>	<p>1. Express mail services form.</p> <p>2. Express mail services form in Braille notation.</p>	Can the pupil receive money using express mail services?	
<p>3. PUBLICATIONS</p> <p>a) Newspapers and Magazines.</p>	<p>The pupil should be able to:</p> <p>(i) Explain the differences between newspapers and magazines.</p>	By using the observation technique, the teacher to guide pupils to explain the differences between newspapers and magazines.	<p>1. Newspapers.</p> <p>2. Magazines.</p> <p>3. Newspapers extracts in Braille notation.</p> <p>4. Textbook.</p> <p>5. Textbook Braille notation.</p> <p>6. Magazine in extracts in Braille</p>	Can the pupil explain the differences between newspapers and magazines?	8

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/ LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
			notation.		
	(ii) Explain the importance of newspapers and magazines.	By using the group discussion technique, the teacher to guide pupils to explain the importance of newspapers and magazines.	1. Newspapers. 2. Magazines. 3. Newspapers in Braille notation. 4. Magazines in Braille notation.	Can the pupil explain the importance of newspapers and magazines?	
	(iii) Select important headlines from newspapers and magazines according to his/her demand.	By using the observation technique, the teacher to guide pupils to select important headlines from newspapers and magazines accordingly to their demand.	1. Newspapers. 2. Magazines. 3. Newspapers extracts in Braille notation. 4. Magazines extracts in Braille notation.	Can the pupil choose important headlines from newspapers and magazines?	
	(iv) Keep newspapers and magazines for future reference.	By using the question and answers technique, the teacher to guide pupils to explain how to keep newspapers and magazines for	1. Newspapers. 2. Newspapers extracts in Braille notation.	Can the pupil keep newspapers and magazines for future reference?	

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/ LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
		future reference.	3. Magazines. 4. Magazines extracts in Braille notation.		
	(v) Explain advantages and disadvantages of magazines.	By using the brain storming technique, the teacher to guide pupils to explain the advantages and disadvantages of newspapers and magazines.	1. Newspapers. 2. Magazines. 3. Newspapers extracts in Braille notation. 4. Magazines extracts in Braille notation.	Can the pupil explain the advantages and disadvantages of newspapers and magazines?	
	(vi) Design simple magazines that hold specific information.	1. By using the demonstration technique, the teacher to guide pupils to design a simple magazine. 2. By using the group work technique, the teacher to guide pupil to design a simple magazine.	1. Paper. 2. Pen/Pencil 3. Coloured pencil. 4. Braille machine. 5. Ruler. 6. Glue 7. Knife. 8. Scissors.	Can the pupil design a simple magazine?	

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/ LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
			9. Sample of designed magazines. 10. Sample of designed magazines in Braille notation.		
b) Brochures.	The pupil should be able to: (i) Explain the meaning of brochures.	By using the short lecture technique, the teacher to guide pupils to explain the meaning of brochures.	1. Brochures. 2. Brochures in Braille notation. 3. Textbook. 4. Textbook in Braille notation.	Can the pupil explain the meaning of brochures?	6
	(ii) Explain the uses of brochures.	By using the group discussion technique, the teacher to guide pupils to explain the uses of brochures.	1. Brochures. 2. Brochures in Braille notation.	Can the pupil explain the uses of brochures?	
	(iii) Design simple brochures that	1. By using the demonstration technique, the teacher to guide	1. Paper. 2. Pen/Pencil	Can the pupil design a simple	

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/ LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
	contain specific information.	pupils to design a simple brochure. 2. By using the group work technique, the teacher to guide pupils to design simple brochures.	3. Coloured pencil. 4. Ruler. 5. Glue 6. Samples of designed brochures. 7. Knife 8. Scissors. 9. Samples of brochures in Braille notation. 10. Braille machines.	brochure?	
4. LIBRARY Types of Libraries.	The pupil should be able to identify types of libraries.	By using the field trip technique, the teacher to guide pupils to visit different types of libraries to identify types of libraries.	1. Pictures of different types of libraries. 2. Tactile pictures of different libraries.	Can the pupil identify the types of libraries?	2
5. RADIO Radio System.	The pupil should be able to: (i) Explain the	By using the short lecture technique, the teacher to guide pupils to explain the concept of radio system.	1. Radio receiver. 2. Picture showing radio studio.	Can the pupil explain the concept of radio	3

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/ LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
	concept of radio system.		3. Tactile pictures of radio studio. 4. Picture showing radio transmitter. 5. Tactile picture of radio transmitter. 6. Chart showing radio system block diagram. 7. Tactile chart showing radio system block diagram.	system?	
	(ii) Identify the components of radio system.	1. By using the group discussion technique, the teacher to guide pupils to identify the components of radio system.	1. Radio receiver. 2. Picture showing radio studio. 3. Tactile picture showing radio studio.	Can the pupil identify the components of the radio system?	

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/ LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
		2. By using the drawing technique, the teacher to guide pupils to draw the components of radio system.	4. Picture showing radio transmitter. 5. Tactile picture showing radio transmitter. 6. Chart showing radio system block diagram. 7. Tactile chart showing radio system block diagram.		
6. TELEVISION Television System.	The pupil should be able to: (i) Explain the concept of television system.	By using the short lecture technique, the teacher to guide pupils to explain the concept of television system.	1. Television receiver. 2. Pictures showing TV studio. 3. Tactile picture showing TV studio. 4. Picture showing TV	Can the pupil explain the concept of television system?	2

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/ LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
			transmitter. 5. Tactile picture showing TV transmitter. 6. Schematic chart of TV system. 7. Tactile schematic chart of TV system. 8. Textbook. 9. Textbook in Braille notation.		
	(ii) Identify the components of the television system.	1. By using the group discussion technique, the teacher to guide pupils to identify the components of the television system. 2. By using the drawing technique, the teacher to guide pupils to draw	1. Television receiver. 2. Pictures showing TV studio. 3. Tactile pictures showing TV studio. 4. Pictures showing TV transmitter.	Can the pupil identify the components of the television system?	

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/ LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
		components of television system.	5. Tactile pictures showing TV transmitter.		
7. INTRODUCTION TO COMPUTER a) Concept of Computer.	The pupil should be able to explain the concept of a computer.	By using the short lecture technique, the teacher to guide pupils to explain the concept of computer.	1. Computer. 2. Drawing/ diagram of computer. 3. Tactile drawing/ diagram of computer.	Can the pupil explain the concept of a computer?	1
b) Basic Elements of Computer.	The pupil should be able to: (i) Identify basic elements of a computer.	1. By using the demonstration technique, the teacher to guide pupils to identify basic elements of a computer. 2. By using the practice technique, the teacher to guide the pupil to identify the basic elements of a computer.	1. Basic elements of computer, (e.g. keyboard, mouse and monitor). 2. Diagrams/ charts that show basic elements of computer, (e.g. keyboard, mouse and monitor).	Can the pupil identify the basic elements of a computer?	6

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/ LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
			3. Tactile diagrams/ charts showing basic elements of computer. 4. Textbook. 5. Textbook in Braille notation.		
	(ii) Explain the functions of the basic elements of a computer.	By using the group discussion technique, the teacher to guide pupils to explain the functions of the basic elements of a computer.	1. Basic elements of computer, (e.g. keyboard, mouse and monitor). 2. Diagrams/ charts that show basic elements of computer, (e.g. keyboard, mouse and monitor). 3. Tactile diagrams/ charts showing basic elements of	Can the pupil explain the functions of the basic elements of a computer?	

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/ LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
			computer.		
	(iii) Use basic elements of a computer.	<p>1. By using the demonstration technique, the teacher to guide pupils to use basic elements of a computer.</p> <p>2. By using the practice technique, the teacher to guide pupils to use basic elements of a computer.</p>	Basic elements of computer, e.g. keyboard, monitor and mouse.	Can the pupil use the basic elements of a computer?	
c) Turning ON and OFF a Computer.	<p>The pupil should be able to:</p> <p>(i) Apply appropriate procedure of turning ON a computer.</p>	<p>1. By using the demonstration technique, the teacher to guide pupils to turn ON a computer.</p> <p>2. By using the practice technique, the teacher to guide pupils to turn ON a computer.</p>	<p>1. Computer.</p> <p>2. Switch socket.</p> <p>3. UPS.</p> <p>4. Voltage stabilizes.</p> <p>5. Drawings/ charts that show the procedures of turning ON a computer.</p> <p>6. Tactile drawings/</p>	Can the pupil turn ON a computer?	2

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/ LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
			charts showing the procedure of turning ON a computer.		
	(ii) Apply appropriate procedures of turning OFF a computer.	<p>1. By using the demonstration technique, the teacher to guide pupils to turn OFF a computer.</p> <p>2. By using the practice technique, the teacher to guide pupils to turn OFF a computer.</p>	<p>1. Computer.</p> <p>2. Switch socket.</p> <p>3. UPS.</p> <p>4. Voltage stabilizes.</p> <p>5. Drawings/ Charts that show the procedures of turning OFF a computer.</p> <p>6. Tactile drawings/ charts showing procedures of turning OFF a computer.</p>	Can the pupil turn OFF a computer?	

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/ LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
d) Operating System.	The pupil should be able to: (i) Explain the meaning of an operating system.	By using the short lecture technique, the teacher to guide pupils to explain the meaning of operating system.	1. Computer with operating system. 2. Computer with narrator software.	Can the pupil explain the meaning of an operating system?	8
	(ii) Explain the importance of the operating system.	By using the assignment technique, the teacher to guide pupils to explain the importance of operating system.	1. Computer with operating system. 2. Computer with narrator software.	Can the pupil explain the importance of operating system?	
	(iii) Use the components of desktop elements of operating system.	1. By using the demonstration technique, the teacher to guide pupils to use the desktop elements of operating system. 2. By using the practice technique, the teacher to guide pupils to use desktop elements of operating system.	1. Computer with operating system. 2. Computer with narrator software. 3. Textbook. 4. Textbook in Braille notation.	Can the pupil use the desktop elements of operating system?	

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/ LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
e) Files and Folders.	<p>The pupil should be able to:</p> <p>(i) Explain the meaning of files and folders.</p>	By using the demonstration technique, the teacher to guide pupils to explain the meaning of file and folder.	<ol style="list-style-type: none"> 1. Spring/ flat file. 2. Drawer. 3. Samples of drawer. 4. Cupboard with draws. 5. Drawing of cupboard. 6. Tactile drawing of cupboard. 7. Computer with operating system. 8. Computer with narrator. 	<p>Can the pupil explain:</p> <ol style="list-style-type: none"> 1. The meaning of file? 2. The meaning of folder? 	10
	(ii) Create a folder.	<ol style="list-style-type: none"> 1. By using the demonstration technique, the teacher to guide pupils to create a folder. 2. By using the practice technique, 	<ol style="list-style-type: none"> 1. Computer with operating system. 2. Computer with narrator software. 3. Textbook. 	Can the pupil create a folder?	

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/ LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
		the teacher to guide pupils to create a folder.	4. Textbook in Braille notation.		
	(iii) Copy files and folders.	1. By using the demonstration technique, the teacher to guide pupils to copy files and folders. 2. By using the practice technique, the teacher to guide pupils to copy files and folders.	1. Computer with operating system. 2. Computer with narrator software. 3. Textbook. 4. Textbook in Braille notation.	Can the pupil: 1. Copy files? 2. Copy folders?	
	(iv) Delete files and folders.	1. By using the demonstration technique, the teacher to guide pupils to delete files and folders. 2. By using the practice technique, the teacher to guide pupils to delete files and folders.	1. Computer with operating system. 2. Computer with narrator software.	Can the pupil: 1. Delete files? 2. Delete folder?	
f) Operating System Applications.	The pupil should be able to: (i) Open pre-	1. By using the demonstration technique, the teacher to guide pupils to open pre-installed	1. Computer with operating system. 2. Computer with	Can the pupil open pre-installed programs	6

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/ LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
	installed programs correctly.	programs. 2. By using the practice technique, the teacher to guide pupils to open pre-installed programs.	narrator software.	correctly?	
	(ii) Close pre-installed programs correctly.	1. By using the demonstration technique, the teacher to guide pupils to close pre-installed programs. 2. By using the practice technique, the teacher to guide pupils to close pre-installed programs.	1. Computer with operating system. 2. Computer with narrator software. 4. Textbook. 5. Textbook in Braille notation.	Can the pupil close pre-installed programs correctly?	
	(iii) Apply pre-installed programs correctly.	1. By using the demonstration technique, the teacher to guide pupils to use pre-installed programs. 2. By using the practice technique, the teacher to guide pupils to use pre-installed programs.	1. Computer with operating system. 2. Computer with narrator software. 4. Textbook. 5. Textbook in Braille notation.	Can the pupil use pre-installed programs correctly?	

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/ LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
8. INTERNET a) Concept of Internet	The pupil should be able to explain the concept of internet.	By using the short lecture technique, the teacher to guide pupils to explain the concept of internet.	1. Computer with internet. 2. Computer with narrator software. 3. Charts showing internet communication network. 4. Tactile charts showing internet communication network.	Can the pupil explain the concept of internet?	1
b) Opening the Website.	The pupil should be able to: (i) Explain the concept of web browser.	By using the short lecture technique, the teacher to guide pupils to explain the concept of web browser.	1.Computer connected with internet. 2. Computer with web browser software. 3.Computer with narrator software. 4.	Can the pupil explain the concept of web browser?	6

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/ LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
	(ii) Explain the concept of web-site.	By using the short lecture technique, the teacher to guide pupils to explain the concept of web site.	1. Computer connected with internet. 2. Computer with narrator software.	Can the pupil explain the concept of web site?	
	(iii) Open the web browser.	1. By using the demonstration technique, the teacher to guide pupils to open the web browser. 2. By using the practice technique, the teacher to guide pupils to open the web browser.	1. Computer connected with internet. 2. Computer with web browser software. 3. Computer with narrator software.	Can the pupil open the web browser?	
	(iv) Close the web browser.	1. By using the demonstration technique, the teacher to guide pupils to close the web browser. 2. By using the practice technique, the teacher to guide pupils to close the web browser.	1. Computer with web browser. 2. Computer connected with internet. 3. Computer with narrator software.	Can pupil close the web browser?	

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/ LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
	(v) Use internet address to open the website.	1. By using the demonstration technique, the teacher to guide pupils to use internet address to open the web site. 2. By using the practice technique, the teacher to guide pupils to use internet address to open the web site.	1. Computer with web browser. 2. Computer connected with internet. 3. Computer with narrator software. 4. Textbook. 5. Textbook in Braille notation.	Can the pupil use internet address to open the website?	
9. ELETRONIC MAIL a) Concept of Electronic Mail (e – mail).	The pupil should be able to explain the concept of electronic mail (e-mail).	By using the short lecture technique, the teacher to guide pupils to explain the concept of electronic mail (e-mail).	1. Computer with internet. 2. Computer with narrator software.	Can the pupil explain the concept of electronic mail?	1
b) E-mail Registration.	The pupil should be able to: (i) Apply the appropriate procedures for e-	1. By using the demonstration technique, the teacher to guide pupils to make e-mail registration. 2. By using the practice technique,	1. Computer with internet. 2. Computer with narrator software.	Can the pupil make electronic mail registration?	4

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/ LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
	mail registration.	the teacher to guide pupils to make e-mail registration.			
	(ii) Log in the e- mail account.	1. By using the demonstration technique, the teacher to guide pupils to log – in the e-mail account. 2. By using the practice technique the teacher to guide pupils to log in the e-mail account.	1. Computer with internet. 2. Computer with narrator software.	Can the pupil log-in the e-mail account?	
	(iii) Log out the e-mail account.	1. By using the demonstration technique, the teacher to guide pupils to log-out the e-mail account. 2. By using the practice technique, the teacher to guide pupils to log-out the e-mail account.	1. Computer with internet. 2. Computer with narrator software. 3. Textbook. 4. Textbook in Braille notation.	Can the pupil log out the e-mail account?	
c) Sending and Receiving Electronic	The pupil should be able to:	1. By using the demonstration technique, the teacher to guide	1. Computer with internet.	Can the pupil send new e-mail	2

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/ LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
mail (e-mail).	(i) Send new electronic mail messages.	pupils to send new e-mail messages. 2. By using the practice technique, the teacher to guide pupils to send new e-mail messages.	2. Computer with narrator software.	messages?	
	(ii) Open the received e-mail messages.	1. By using the demonstration technique, the teacher to guide pupils to open the received e-mail messages. 2. By using the practice technique, the teacher to guide pupils to open the received e-mail messages.	1. Computer with internet. 2. Computer with narrator software.	Can the pupil open the received e-mail messages?	
	(iii) Reply to the received e-mail messages.	1. By using the demonstration technique, the teacher to guide pupils to reply to the received e-mail messages.	1. Computer with internet. 2. Computer with narrator software. 4. Textbook.	Can the pupil reply to the received e-mail messages?	

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/ LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
		2. By using the practice technique, the teacher to guide pupils to reply to the received e-mail messages.	5. Textbook in Braille notation.		
	(iv) Delete e-mail messages	<p>1. By using the demonstration technique, the teacher to guide pupils to delete e-mail messages.</p> <p>2. By using the practice technique, the teacher to guide pupils to delete e-mail messages.</p>	<p>1. Computer with internet.</p> <p>2. Computer with narrator software.</p>	Can the pupil delete e-mail messages?	

STANDARD VI

COMPETENCES

After studying ICT subject in Standard VI the pupils shall demonstrate the ability to :-

1. Identify means of communications and use them appropriately.
2. Collect and use information from mass communication media appropriately.
3. Identify basic computer applications and use them appropriately.
4. Use internet for searching and acquiring information.
5. Send and receive e-mail attachments.
6. Identify and use library documents.
7. Identify and use postal service appropriately.

OBJECTIVES

After studying ICT subject in Standard VI the pupils shall be able to:-

1. Develop skills of acquiring and using information from mass communication media.
2. Understand basic computer applications and their application.
3. Develop skills of using internet for searching and acquiring appropriate information.
4. Develop skills of identifying and using library services appropriately
5. Acquire skills of identifying means of communication and their appropriate application.

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
1. TELEPHONES a) Radio Call	The pupil should be able to: (i) Explain the concept of radio call.	By using the short lecture technique, the teacher to guide pupils to explain the concept of radio calls.	1. Radio call. 2. Drawing of radio call. 3. Tactile drawing of radio call.	Can the pupil explain the concept of radio call?	4
	(ii) Explain the applications of radio calls in different areas.	By using the brain storming technique, the teacher to guide pupils to explain applications of radio calls in different areas.	1. Pictures showing various areas where radio calls are used. 2. Tactile pictures showing various areas where radio calls are used.	Can the pupil explain the applications of radio calls?	
b) Fax	The pupil should be able to: (i) Explain the concept of fax.	By using the short lecture technique, the teacher to guide pupils to explain the concept of fax.	1. Fax machine. 2. Drawing of fax machine. 3. Tactile drawing of fax machine.	Can the pupil explain the concept of fax?	4

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
	(ii) Explain the procedures of sending information through fax.	By using the short lecture technique, the teacher to guide pupils to explain the procedures of sending information through fax.	1. Fax machine. 2. Fax machine user manual. 3. Fax machine user manual in Braille notation.	Can the pupil explain the procedures of sending information through fax?	
	(iii) Explain the procedures of receiving information through fax.	By using the short lecture technique, the teacher to guide pupils to explain the procedure of receiving information through fax.	1. Fax machine 2. Fax machine user manual. 3. Diagram of fax machine. 4. Fax machine user manual in Braille notation. 5. Tactile diagram of fax machine.	Can the pupil explain the procedures of receiving information through fax?	
	(iv) Use fax to send and receive information.	1. By using the demonstration technique, the teacher to guide pupils to send and receive	1. Fax machine. 2. Fax machine user manual.	Can the pupil: 1. Send information	

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
		information through fax. 2. By using the practice technique, the teacher to guide pupils to send and receive information through fax.	3. Fax machine user manual in Braille notation.	through fax? 2. Receive information through fax?	
2. POSTAL SERVICES a) Sending and Receiving Parcels.	The pupil should be able to: (i) Send parcels through the post office.	1. By using the demonstration technique, the teacher to guide pupils to fill appropriate forms of sending parcels. 2. By using the study visit technique, the teacher to guide pupils to visit post office and learn how to send parcels through post office.	1. Form for sending parcels. 2. Form for sending parcels in Braille notation. 3. Textbook. 4. Textbook in Braille notation.	Can the pupil send parcels through the post office?	4
	(ii) Receive parcels through the post office.	By using the field trip technique, the teacher to guide pupils to visit post office to see how to receive parcels through the post	Parcel.	Can the pupil receive parcels through the post office?	

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
		office.			
b) Express Money Order.	The pupil should be able to: (i) Send money by express money order.	1. By using demonstration technique, the teacher to guide pupils to fill the forms of sending money by express money order. 2. By using the field trip technique the teacher to guide pupils to visit post office to see how to send money by express money order.	1. Express money order form. 2. Express money order form in Braille notation. 3. Text book. 4. Text book in Braille notation.	Can the pupil send money by express money order?	4
	(ii) Receive money by express money order.	1. By using the demonstration technique, the teacher to guide pupils to fill the forms of receiving money by express money order. 2. By using the field trip technique, the teacher to guide	1. Express money order form. 2. Express money order form in Braille notation.	Can the pupil receive money by express money order?	

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
		pupils to visit post office to see how to receive money by express money order.			
c) Telegram Money Order.	The pupil should be able to: (i) Send money by telegram money order	1. By using the demonstration technique, the teacher to guide pupils to fill the forms of telegram money order. 2. By using the field trip technique, the teacher to guide pupils to visit a post office to see how to send money by telegram money order.	1. Telegram money order form. 2. Telegram money order form in Braille notation. 3. Textbook. 4. Textbook in Braille notation.	Can the pupil send money by telegram money order?	4
	(ii) Receive money by telegram money order.	1. By using the demonstration technique the teacher to guide pupils to fill the forms of telegram money order. 2. By using the field trip technique, the teacher to guide	1. Telegram money order form. 2. Telegram money order form in Braille notation.	Can the pupil receive money by telegram money order?	

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
		pupils to visit post office to see how to receive money by telegram money order.			
d) Electronic Fund Transfer.	The pupil should be able to: (i) Send money by electronic fund transfer.	1. By using the demonstration technique, the teacher to guide pupils to fill the forms of electronic fund transfer. 2. By using the field trip technique, the teacher to guide pupils to visit a post office to see how to send money by electronic fund transfer.	1. Electronic fund transfer form. 2. Electronic fund transfer form in Braille notation. 3. Text book. 4. Text book in Braille notation.	Can the pupil send money by electronic fund transfers?	4
	(ii) Receive money by electronic fund transfer.	1. By using the demonstration technique, the teacher to guide pupils to fill the forms of electronic fund transfer.	1. Electronic fund transfer form. 2. Electronic fund transfer form in Braille notation.	Can the pupil receive money by electronic fund transfer?	

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
		2. By using the field trip technique, the teacher to guide pupils to visit a post office to see how to receive money by electronic fund transfer.			
3. PUBLICATIONS a) Books and Pamphlets.	The pupil should be able to: (i) Identify titles and authors of books.	By using the question and answers technique, the teacher to guide pupils to identify titles and authors of books.	1. Books. 2. Books in Braille notation.	Can the pupil identify the titles and authors of books?	4
	(ii) Identify titles and writers of pamphlets.	By using the question and answers technique, the teacher to guide pupils to identify titles and writers of pamphlets.	1. Pamphlets. 2. Pamphlets in Braille notation.	Can the pupil identify titles and writers of pamphlets?	
	(iii) Find information using table of contents and index of books.	1. By using the demonstration technique, the teacher to guide pupils to find information using table of contents and index of books.	1. Books. 2. Books in Braille notation. 3. Textbook. 4. Textbook in Braille	Can the pupil find information using table of contents and index of books?	

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
		2. By using the practice technique, the teacher to guide pupils to find information using table of contents and index of books.	notation.		
	(iv) Find information using table of contents of pamphlets.	1. By using the demonstration technique, the teacher to guide pupils to find information using table of contents of pamphlets. 2. By using the practice technique, the teacher to guide pupils to find information using table of contents of pamphlets.	1. Pamphlets 2. Pamphlets in Braille notation.	Can the pupil find information using table of contents of pamphlets?	
b) Posters.	The pupil should be able to: (i) Explain the concept of a poster.	By using the short lecture technique, the teacher to guide pupils to explain the concept of a poster.	1. Posters. 2. Tactile posters.	Can the pupil explain the concept of a poster?	5

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
	(ii) Explain the uses of posters	By using the brain storming technique, the teacher to guide pupils to explain the uses of posters.	1. Posters. 2. Tactile posters.	Can the pupil explain the uses of posters?	
	(iii) Design posters that contain specific messages.	1. By using the demonstration technique the teacher to guide pupils to design posters. 2. By using the assignment technique, the teacher guide pupils to design posters.	1. Manila paper. 2. Marker pen. 3. Water colour. 4. Brushes. 5. Poster colour. 6. Saw. 7. Soft wood. 8. Nails. 9. Hammer. 10. Braille machine.	Can the pupil design posters that contain specific messages?	
4. LIBRARY Documentation.	The pupil should be able to: (i) Explain the concept of documentation.	By using the short lecture technique, the teacher to guide pupils to explain the concept of documentation.	1. Drawing showing various types of library documentation. 2. Tactile drawing	Can the pupil explain the concept of documentation?	3

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
			showing various types of library documentation.		
	(ii) Explain different types of documentation available in a library.	By using the assignment technique, the teacher to guide pupils to explain the different types of documentation available in a library.	1. Drawing showing various types of library documentation. 2. Tactile drawings showing various types of library documentation.	Can the pupil explain the different types of documentation available in a library?	
	(iii) Explain the importance of documentation in a library.	By using the group discussion technique, the teacher to guide pupils to explain the importance of documentation in a library.	1. Drawing showing different types of library documentation. 2. Tactile drawing showing different types of library documentation.	Can the pupil explain the importance of documentation in a library?	

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
5. RADIO Radio Frequencies.	The pupil should be able to: (i) Explain the concept of radio frequency bands.	By using the short lecture technique, the teacher to guide pupils to explain the concept of radio frequency bands.	1. Radio. 2. Model of radio. 3. Drawing of radio. 4. Tactile drawing of radio. 5. Chart of radio frequency bands. 6. Tactile chart of radio frequency bands.	Can the pupil explain the concept of frequency bands?	3
	(ii) Identify radio frequency bands.	By using the demonstration technique, the teacher to guide pupils to identify radio frequency bands.	1. Radio. 2. Model of radio. 3. Drawing of radio. 4. Tactile drawing of radio. 5. Charts of radio frequency bands. 6. Tactile chart of radio frequency	Can the pupil identify radio frequency bands?	

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
			bands.		
	(iii) Apply radio frequency bands for tuning radio stations.	By using the group work technique, the teacher to guide pupils to apply radio frequency bands for tuning radio station.	1. Radio. 2. Model of radio 3. Chart of radio frequency bands. 4. Tactile chart of radio frequency bands.	Can the pupil apply radio frequency bands for tuning radio stations?	
6. TELEVISION a) Television Antenna.	The pupil should be able to: (i) Explain the meaning of an antenna.	By using the question and answers technique, the teacher to guide pupils to explain the meaning of an antenna.	1. TV antenna 2. Model of TV antenna. 3. Drawing of TV antenna. 4. Tactile drawing of TV antenna.	Can the pupil explain the meaning of an antenna?	6
	(ii) Explain the importance a TV antenna.	By using the question and answers technique, the teacher to guide pupils to explain the importance of TV antenna.	1. TV antenna. 2. Model of TV antenna. 3. Drawing of TV	Can the pupil explain the importance of TV antenna?	

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
			antenna. 4. Tactile drawing of TV antenna.		
	(iii) Connect TV antenna appropriately.	By using the demonstration technique, the teacher to guide pupils to connect TV antenna appropriately.	1. TV. 2. TV antenna. 3. Booster. 4. Instruction manual. 5. Instruction manual in Braille notation. 6. Coaxial cable. 7. Pole. 8. Wire cutter. 9. Screw driver. 10. Knife.	Can the pupil connect TV antenna appropriately?	
	(iv) Construct simple TV antenna.	By using the project technique, the teacher to guide pupils to construct simple TV antenna	1. Drawing of TV antenna. 2. Tactile drawing	Can the pupil construct simple TV antenna?	

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
		using local available materials.	of TV antenna. 3. Aluminium bars. 4. Tools such as: cable, glue pieces of wood, knife, Nails, saw, Hammer, pieces of paper, pole.		
b) Television Channel Settings.	The pupil should be able to: (i) Use the contents of television menu.	1. By using the demonstration technique, the teacher to guide pupils to use the contents of television menu. 2. By using the practice technique, the teacher to guide pupils to use the contents of television menu.	1. TV. 2. TV instruction manual. 3. TV instruction manual in Braille notation. 4. Textbook. 5. Textbook in Braille notation.	Can the pupil use the contents of television menu?	4

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
					4
	(ii) Search television channels correctly.	1. By using the demonstration technique, the teacher to guide pupils to search television channels correctly. 2. By using the practice technique, the teacher to guide pupils to search TV channels.	1. TV. 2. TV instruction manual. 3. TV instruction manual in Braille notation.	Can the pupil search television channels correctly?	
7. INTRODUCTION TO COMPUTER. a) Hardware and Software.	The pupil should be able to: (i) Explain the concept of computer hardware.	By using the short lecture technique, the teacher to guide pupils to explain the concept of a computer hardware.	1. Computer hardware, (example, keyboard, mouse). 2. Models of computer hardware. 3. Drawings and diagrams of computer hardware. 4. Tactile drawings and diagrams of	Can the pupil explain the concept of computer hardware?	

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
			computer hardware.		
	(ii) Identify different components of computer hardware.	By using the question and answers technique, the teacher to guide pupils to identify different components of computer hardware.	<ol style="list-style-type: none"> 1. Computer hardware. 2. Models of computer hardware. 3. Drawings and diagrams of computer hardware. 4. Tactile drawings and diagrams of computer hardware. 	Can the pupil identify different components of computer hardware?	
	(iii) Explain the meaning of computer software.	By using the short lecture technique, the teacher to guide pupils to explain the meaning of computer software.	1. Computer with installed software, (e.g. application software and system software).	Can the pupil explain the meaning of computer software?	

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
			2. Computer with narrator.		
	(iv) Identify different types of computer software.	By using the short lecture technique, the teacher to guide pupils to identify types of computer software.	1. Computer with installed software e.g. application software and system software. 2. Computer with narrator.	Can the pupil identify types of computer software?	
b) Word Processor Application.	The pupil should be able to: (i) Open word processor correctly.	1. By using demonstration technique, the teacher to guide pupils to open word processor correctly. 2. By using the practice technique, the teacher to guide pupils to open word processor correctly.	1. Computer with word processor. 2. Computer with word processor and Narrator. 3. Textbook. 4. Textbook in Braille notation.	Can the pupil open word processor correctly?	8

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
	(ii) Close word processor correctly.	By using the self discovery technique, the teacher to guide pupils to close word processor correctly.	1. Computer with word processor. 2. Computer with word processor and Narrator.	Can the pupil close word processor correctly?	
	(iii) Type in text correctly.	1. By using the demonstration technique, the teacher to guide pupils to type in the text correctly. 2. By using the practice technique, the teacher to guide pupils to type in the text.	1. Computer with word processor. 2. Computer with word processor and narrator. 3. Paper with passage. 4. Paper with passage in Braille notation.	Can the pupil type in the text correctly?	
	(iv) Edit text.	1. By using the demonstration technique, the teacher to guide pupils to edit text in a word processor document.	1. Computer with word processor. 2. Computer with word processor and narrator. 3. Word processor	Can the pupil edit text in a word processor document?	

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
		2. By using the practice technique, the teacher to guide pupils to edit text in a word processor document.	document.		
	(v) Format text.	1. By using the demonstration technique, the teacher to guide pupils to format the text. 2. By using practice technique, the teacher to guide pupils to format the text.	1. Computer with word processor. 2. Computer with word processor and narrator. 3. Word processor document.	Can the pupil format the text?	
	(vi) Print the word processor document.	1. By using the demonstration technique, the teacher to guide pupils to print the word processor document. 2. By using the practice technique, the teacher to guide pupils to print the word processor document.	1. Computer with word processor. 2. Computer with word processor and narrator. 3. Word processor document. 4. Printer.	Can the pupil print word processor document?	

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
			5. Braille printer. 6. Printer papers.		
c) Spreadsheet Application.	The pupil should be able to: (i) Open a spreadsheet correctly.	By using the demonstration technique, the teacher to guide pupils to open a spreadsheet correctly.	1. Computer with spreadsheet program. 2. Computer with spreadsheet and narrator.	Can the pupil open a spreadsheet correctly?	8
	(ii) Close a spreadsheet correctly.	By using the practice technique, the teacher to guide pupils to close a spreadsheet correctly.	1. Computer with spreadsheet. 2. Computer with spreadsheet and narrator.	Can the pupil close a spreadsheet correctly?	
	(iii) Differentiate between rows and columns.	By using the question and answers technique, the teacher to guide pupils to differentiate between columns and rows of a worksheet.	1. Computer with spreadsheet. 2. Computer with spreadsheet and narrator.	Can the pupil differentiate between columns and rows of a worksheet?	

TOPICS/ SUB-TOPICS	SPECIFIC OBJECTIVES	TEACHING/LEARNING TECHNIQUES	MATERIALS/ AIDS	ASSESSMENT	PERIODS
	(iv) Insert data into worksheet.	<p>1. By using the demonstration technique, the teacher to guide pupils to insert data into worksheet.</p> <p>2. By using the practice technique, the teacher to guide pupils to insert data into worksheet.</p>	<p>1. Computer with spreadsheet.</p> <p>2. Computer with spread sheet and narrator.</p> <p>3. Data-sheet with data.</p> <p>4. Data - sheet with data in Braille notation.</p>	Can the pupil insert data into worksheet correctly?	
	(v) Edit entered data on a worksheet.	<p>1. By using the demonstration technique, the teacher to guide pupils to edit the entered data on a worksheet.</p> <p>2. By using the practice technique, the teacher to guide pupils to edit the entered data on a worksheet.</p>	<p>1. Computer with spread sheet.</p> <p>2. Computer with spreadsheet and narrator.</p> <p>3. Spreadsheet document.</p>	Can the pupil edit the entered data on a worksheet?	
	(vi) Format data on a worksheet.	1. By using the demonstration technique, the teacher to guide pupils to format data on a	<p>1. Computer with spreadsheet</p> <p>2. Computer with</p>	Can the pupil format data on a worksheet?	

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		worksheet. 2. By using the practice technique, the teacher to guide pupils to format data on a worksheet.	spreadsheet and narrator. 3. Spreadsheet Document.		
	(vii) Print a worksheet correctly	1. By using the demonstration technique, the teacher to guide pupils to print a worksheet. 2. By using the practice technique, the teacher to guide pupils to print a worksheet.	1. Computer with spreadsheet. 2. Computer with spreadsheet and narrator. 3. Spreadsheet Document. 4. Printer. 5. Braille printer. 6. Printer papers.	Can the pupils print a worksheet correctly?	
8. INTERNET a) Search Engines.	The pupil should be able to: (i) Explain the meaning of search engine.	By using the short lecture, technique, the teacher to guide pupils to explain the meaning of search engine.	1. Computer with internet. 2. Computer with internet and	Can the pupil explain the meaning of search engine?	4

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			narrator.		
	(ii) Explain the functions of search engine.	By using the group discussion technique, the teacher to guide pupils to explain the functions of search engine.	1. Computer with internet. 2. Computer with internet and narrator.	Can the pupil explain the functions of search engine?	
	(iii) Identify the names of common search engines.	By using the assignment technique, the teacher to guide pupils to identify the names of common search engines.	1. Computer with internet. 2. Computer with internet and narrator. 3. Chart showing various name of search engines. 4. Tactile chart showing various names of search engines.	Can the pupil identify the names of common search engines?	

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	(iv) Use search engine to search for useful information.	<p>1. By using the demonstration technique, the teacher to guide pupils to search for useful information using search engine.</p> <p>2. By using the practice technique, the teacher to guide pupils to search for useful information using search engine.</p>	<p>1. Computer with internet.</p> <p>2. Computer with internet and narrator.</p>	Can the pupil search for useful information using search engine?	
b) Downloading.	<p>The pupil should be able to:</p> <p>(i) Explain the meaning of downloading.</p>	By using the short lecture technique, the teacher to guide pupils to explain the meaning of downloading.	<p>1. Computer with internet.</p> <p>2. Computer with internet and narrator.</p> <p>3. Textbook.</p> <p>5 . Textbook in Braille notation.</p>	Can the pupil explain the meaning of downloading?	4

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	(ii) Download useful information from the internet.	1. By using the demonstration technique, the teacher to guide pupils to download useful information from the internet. 2. By using the practice technique, the teacher to guide pupil to down load useful information from the internet.	1. Computer with internet. 2. Computer with internet and narrator.	Can the pupil download useful information from the internet?	
9. ELETRONIC MAIL a) Sending e-mail Attachments.	The pupil should be able to send e-mail attachments appropriately.	1. By using the demonstration technique, the teacher to guide pupils to send e-mail attachments appropriately. 2. By using the practice technique, the teacher to guide pupils to send e- mail attachments appropriately.	1. Computer with internet. 2. Computer with internet and narrator.	Can the pupil send e-mail attachments appropriately?	4
b) Receiving e-mail Attachments.	The pupil should be able to receive e-mail attachments	1. By using the demonstration technique, the teacher to guide pupils to receive e-mail	1. Computer with internet.	Can the pupil: 1. Download e-mail	4

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	appropriately.	<p>attachments appropriately.</p> <p>2. By using the practice technique, the teacher to guide pupils to receive e-mail attachments appropriately.</p>	<p>2. Computer with internet and narrator.</p> <p>3. Textbook.</p> <p>4. Textbook in Braille notation.</p>	<p>attachments appropriately?</p> <p>2. Save e-mail attachments appropriately?</p>	