

THE UNITED REPUBLIC OF TANZANIA
MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY



SCIENCE AND TECHNOLOGY SYLLABUS FOR PRIMARY SCHOOL EDUCATION
STANDARD III–VII

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Foreword

Quality education is the right of every Tanzanian. The Ministry of Education, Science and Technology has been reviewing the curriculum for primary school education to ensure that it provides quality education and prepares the pupil to cope with the environment in which he or she lives. This goal has necessitated the Ministry of Education, Science and Technology to improve the teaching and learning of the Science and Technology using this syllabus. The Syllabus has been prepared based on the 2019 edition of the 2015 Standard I–II curriculum and 2016 Standard III–VI curriculum. This syllabus emphasises teaching and learning that focus on developing the pupil’s competencies. Using this syllabus, the pupil will develop critical skills and curiosity which are essential in developing creative scientific and technological skills.

The Science and Technology Subject Syllabus has various components which consist of main competencies, specific competencies, activities to be performed by a pupil, assessment criteria, benchmarking standards and the number of periods for each specific competency. These components will help a teacher to know how to teach and assess the pupil’s performance with regard to the ability to demonstrate the competencies. However, Reading, Writing and Arithmetic (3Rs) are emphasised in the Science and Technology subject.

The teacher is expected to use this syllabus following the instructions provided. However, he or she can plan the implementation of the syllabus depending on his/ her surroundings.

The Ministry of Education, Science and Technology continues to receive any constructive suggestions for improving the quality of this syllabus from teachers and other education stakeholders. All suggestions should be sent to the Director General of the Tanzania Institute of Education.



Dr Lyabwene M. Mtahabwa

Commissioner for Education

Ministry of Education, Science and Technology

1.0 Introduction

The syllabus for the Science and Technology subject is based on the 2016 basic educational curriculum for Standard III–VII. The Science and Technology subject consists of technological skills, information and communication technology (ICT), experiments, different types of scientific and technological investigations and discoveries.

The teaching of the Science and Technology subject will result in the use of knowledge and scientific innovations in the pupil's everyday life. The knowledge of Science and Technology emphasises developing technology with sustainable resources, develops thinking skills and creativity in learning science and technology. This syllabus is divided into three sections: general introduction to the subject, general curriculum overview and syllabus content.

2.0 General curriculum overview

The curriculum process for basic education standard III–VII comprises various aspects which show that the curriculum is holistic as it allows one to understand various aspects in an integrative way. This part presents some of the curriculum aspects, namely objectives of basic education, competency of basic education for Standard III–VII, importance and objectives of science and technology, main and specific competencies, teaching and learning science and technology and assessment of learning.

2.1 Objectives of primary education

The objectives of primary school education for Standard III–VII are to enable the pupils to

- (a) develop the pupil's reading, writing, arithmetic and oral communication skills;
- (b) understand, use and value Kiswahili and English languages;
- (c) understand the foundations of the rule of law;
- (d) value Tanzanian culture and those of other countries;

- (e) think creatively and solve problems;
- (f) recognise the importance of ethics, integrity and accountability as qualities of a good citizen;
- (g) participate in games and sport activities and value artistic activities;
- (h) discover and develop his or her talents and abilities;
- (i) value and like to work;
- (j) recognise, value and make use of technical skills; and
- (k) prepare for the next level of education and enhance the spirit of lifelong learning.

2.2 Competencies in primary school education for Standard III–VII

The competencies in primary school education are intended to enable the pupil to

- (a) communicate correctly in Kiswahili and English in speech and in writing;
- (b) read confidently and understand texts;
- (c) apply theoretical and mathematical principles in day-to-day life situations;
- (d) apply scientific, technological and vocational skills in real-life situations;
- (e) value our culture and the cultures of other communities;
- (f) respect diverse beliefs and ideologies of the community of which he or she is a member;
- (g) participate in games and sport activities and artistic activities;
- (h) respect oneself and others;
- (i) perform patriotic duties;
- (j) participate in different activities which are appropriate to his or her age;
- (k) participate in activities which enhance his or her logical and analytical thinking; and
- (l) cooperate with others in doing activities that are acceptable in the community.

2.3 Objectives of the Science and Technology subject

The Science and Technology subject enables the pupil to

- (a) acquire knowledge of developing science and technology skills;
- (b) build the ability to use science and technology to solve problems in day-to-day life; and
- (c) develop the ability to use various science and technological tools.

2.4 Main and specific competencies

The Science and Technology subject will develop the following competencies in the pupil.

Table 1: Competencies to be acquired by the pupil in the Science and Technology subject Standard III–VII

Main competency	Specific competency
1.0 Performing investigations and discoveries in science and technology	1.1 Investigating various things in the environment 1.2 Identifying various types of energy and their uses 1.3 Identifying scientific and technological theories
2.0 Applying fundamentals of science and technology	2.1 Applying Information and Communication Technology (ICT) 2.2 Mastering scientific skills 2.3 Performing scientific experiments correctly
3.0 Maintaining health and the environment	3.1 Applying principles of hygiene for good health and environment 3.2 Applying health principles for good health 3.3 Identifying various systems of the human body

2.5 Teaching and learning activities

The teaching and learning of the Science and Technology subject is based on actions, practicals and investigations which are aimed at helping the pupil acquire the target competencies. The participatory teaching and learning techniques used include projects, role-play, discussions, case studies, games, assessment, tests and practicals.

2.6 Assessment of learning

The teacher is expected to assess the pupil's ability to perform practical and scientific investigations, design and develop various scientific and technological objects and use science and technology to solve problems. Moreover, the teacher is also expected to assess the pupil's ability to collect, analyse and interpret scientific information with respect to the quality and quantity and also assess the ability of a pupil to use scientific and technological tools.

3.0 Syllabus Content

The content of this syllabus is organised and presented as per class level to include: main competencies, specific competencies, and activities to be done by the pupil. The assessment criteria and performance standards (benchmarks) as well as the number of periods for each specific competency are also included in the syllabus.

3.1 Main competency

A main competency refers to the pupil's ability to do something correctly and effectively as intended after learning a topic for a particular time. The main competency is developed by several specific competencies that a pupil is expected to acquire while doing various activities.

3.2 Specific competency

A specific competency refers to the pupil's ability to do various activities for a specific period.

3.3 Activities to be done by the pupil

These are activities which the pupil ought to do to in order to develop a specific competency, depending on his or her ability and age.

3.4 Assessment criteria

Assessment criteria are the efficiency standards the pupil attains while building up a specific competency.

3.5 Benchmarking of the pupil performance

Benchmarking is the extent of achievement for each activity performed by a pupil.

3.6 Number of periods

This refers to the time which is expected to be spent in teaching and learning according to the specific competency and activities to be done by the pupil. There are five periods for the Science and Technology subject per week and each period takes 40 minutes. The number of periods for each specific competency can be changed depending on the teaching and learning circumstances.

3.7 Standard III Contents

Table 2: Competencies for standard III

Main competency	Specific competency
1.0 Performing investigations and discoveries in Science and Technology.	1.1 Investigating things that are in the environment 1.2 Identifying various types of energy and their uses 1.3 Identifying scientific and technological theories
2.0 Applying fundamentals of Science and Technology.	2.1 Applying Information and Communication Technology (ICT) 2.2 Mastering scientific skills 2.3 Performing scientific experiments
3.0 Maintaining health and the environment.	3.1 Applying principles of hygiene for good health and environment 3.2 Applying health principles for good health 3.3 Identifying various systems in the human body

Table 3: Content matrix for Standard III

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
1.0 Performing investigations and discoveries in Science and Technology	1.1 Investigating various things that are in the environment.	a) Recognise living and non-living things in the environment.	Living and non-living things in the environment have been recognised correctly.	Recognize living and non-living things in the environment.	Recognise and mention few living and non-living things in the environment.	Recognise living and non-living things in the environment are recognised and explained using examples.	Recognise and explain and then differentiate living and non-living things in the environment.	21
		b) Explain how to take precautions and safety measures against dangerous and poisonous organisms.	Precautions and safety measures against dangerous and poisonous organisms have been explained correctly.	Explain how to take precautions and safety measures against dangerous and poisonous organism non-systematically.	Explain how to take precautions and safety measures against dangerous and poisonous organisms.	Explain how to take precautions and safety measures against dangerous and poisonous organisms correctly using real examples.	Explain how to take precautions and safety measures against dangerous and poisonous organisms and advise others.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		c) Explain how to value living and non-living things in the environment.	How to value living and non-living things in the environment has been explained correctly.	Explain how to value living and non-living things without following important aspects.	Explain how to value living and non-living things in the environment by considering some aspects.	Explain how to value living and non-living things in the environment correctly.	Explain how to value living and non-living things in the environment by using real examples.	
	1.2 Identifying various types of energy and their uses	a) Explain the concept of energy.	The concept of energy has been explained correctly by considering the aspects of meaning, type and importance.	Explain the concept of energy through trial and error.	Explain the concept of energy by considering some of the aspects.	Explain clearly the concept of energy.	Explain clearly the concept of energy using real examples.	14
		b) Demonstrate how sound, heat, and light travel.	Demonstration on how sound, heat and light energy travel has been done correctly.	Demonstrate how sound, heat and light energy travel without following procedures.	Demonstrate how sound, heat and light energy travel by following some few procedures.	Demonstrate how sound, heat and light energy travel correctly.	Demonstrate how light, heat and sound energy travel and explain how they are done.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		c) Explain the uses of sound, heat and light energy.	The use of sound, heat and light energy has been explained correctly.	Explain the use of sound, heat and light energy without clarity.	Explain some of the uses of sound, heat and light energy with a few mistakes.	Explain the use of sound, heat and light energy correctly.	Explain with examples the use of sound, heat and light energy correctly.	
	1.3 Identifying scientific and technological theories	a) Explain the concept of matter.	The concept of matter has been explained correctly by considering the aspects of meaning, type and importance.	The concept of matter has been explained without using the important aspects.	The concept of matter has been explained using some of the aspects.	The concept of matter is explained clearly using all aspects and examples.	The concept of matter has been explained using all aspects and real examples.	28
		b) Perform activities concerning characteristics of matter.	Activities on characteristics of matter have been performed correctly.	Perform activities concerning characteristics of matter without following procedures.	Perform some activities concerning characteristics of matter.	Perform activities concerning characteristics of matter correctly.	Perform activities concerning characteristics of matter and explain the relationship between different states of matter correctly.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		c) Make a model which can float on water.	A model which can float on water is made correctly.	Make a model which can float on water without considering the main principles.	Using some principles, he or she can make a model which can float on water.	A model which can float on water is made properly.	Make different models which can float on water correctly.	
		d) Make a model which can fly in air.	A model which can fly is made properly.	A model which can fly is made with some mistakes.	A model which can fly in air is made without considering some of the principles.	A model which can fly in air is made properly by considering all principles correctly.	Different models which can fly in air are made and explained with examples.	
2.0 Applying fundamentals of Science and Technology	2.1 Applying Information and Communication Technology (ICT)	a) Explain the concept of communication.	Concept of communication has been explained by correctly considering the aspects of meaning, steps and importance.	Explain the concept of communication without using important steps.	By considering some steps, she or he can explain the concept of communication.	Explain the concept of communication correctly.	Explain the concept of communication using examples.	21

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		b) Demonstrate how to use a mobile telephone.	Demonstration on how to use mobile telephone has been done by following procedures.	Demonstrate how to use a mobile telephone without following procedures.	By considering some principles he or she can use a mobile telephone.	Able to use a mobile telephone correctly by following all procedures.	Able to use mobile telephone and can explain the steps of using it.	
		c) Explain how to use a telephone in learning.	How to use telephones in learning has been explained correctly.	Explain how to use a telephone in learning without clear explanations.	Explain some of the steps on how to use a telephone in learning.	Explain how to use a telephone in learning clearly using examples.	Explain how to use a telephone in learning using examples and giving advice on taking precautions when using it.	
	2.2 Mastering scientific skills	a) Identify tools used to simplify work.	Tools for simplifying work have been identified correctly.	Identify few tools for simplifying work without clear explanations.	Can identify some tools for simplifying work and differentiates them.	The tools for simplifying work are identified and differentiated with clear explanations.	Can identify and differentiate tools for simplifying work and explain how they are used.	14

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		b) Use of tools for simplifying work.	Tools for simplifying work have been used correctly.	Use tools for simplifying work without following procedures for using them.	Use tools for simplifying work by following a few procedures.	Use tools for simplifying work by following procedures correctly.	Use tools for simplifying work and explain to others how to use them.	
		c) Practise how to keep tools used to simplify work.	Practise of how to keep tools used to simplify work has been done correctly.	Practise how to keep tools used to simplify work without using principles.	Practise some few procedures on how to keep tools for simplifying work.	Practise how to keep tools for simplifying work properly.	Practise how to keep tools for simplifying work and explain the importance of keeping them.	
	2.3 Performing scientific experiments	a) Explain the concept of measurements in doing scientific experiments.	Concept of measurement in doing scientific experiments have been explained correctly by considering meaning, type and importance.	Explain the concept of measurements in doing experiments without considering the important aspects.	By considering some important aspects, he or she can explain the concept of measurements in doing experiments.	The concept of measurements in doing experiments is explained correctly.	Explain the concept of measurements and explain precautions to be taken when measuring things.	21

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		b) Use non standard measurement.	Activities of using non-standard measurement have been done correctly.	Use non-standard measurement without following procedures.	Use non-standard measurement.	Uses non-standard measurement correctly.	Use non-standard measurement and explain how they are used.	
		c) Use standard measurement in scientific experiments.	Activities of using standard measurement in scientific experiments have been done correctly.	Can use standard measurement without considering experiment procedures.	Perform some scientific experiments using standard measurement.	Use standard measurement in scientific experiments by giving real examples.	Use standard measurement in scientific experiments and differentiate them.	
3.0 Maintaining health and environment	3.1 Applying principles of hygiene for good health and environment	a) Explain the importance of body and garments cleanliness.	The importance of body and garments cleanliness has been explained correctly.	The importance of body and garments cleanliness is explained without clear information.	Explain the importance of body and garments cleanliness and being understood to a certain extent.	The importance of body and garments cleanliness is explained correctly.	Explain clearly with examples the importance of body and garments cleanliness.	35

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		b) Keep tools for cleaning body and garments.	Tools for cleaning body and garments are kept correctly.	Keep tools for garments and body cleaning unsystematically.	Can keep some body and garments cleanliness tools systematically.	In a correct way, he or she is able to keep body and garments cleanliness tools in a systemic way.	Keep tools for body and garments cleanliness properly and advise others to keep them.	
		c) Maintain the habit of body and garments cleanliness.	The habit of maintaining body hygiene and garments cleanliness has been demonstrated correctly.	Demonstrate how to maintain body hygiene and garments cleanliness at low level.	Demonstrate the habit of maintaining body hygiene and garments cleanliness.	Using procedures he or she can demonstrate the habit of maintaining body hygiene and garments cleanliness.	Using procedures, he or she can show the habit of maintaining body hygiene and garments cleanliness and advising others.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		d) Explain the concept of First Aid.	Concept of First Aid has been explained correctly.	First Aid concept is explained clear information.	By considering some of the important aspects, he or she can explain the concept of First Aid.	Concept of First Aid is explained correctly using real examples.	Explain the concept of First Aid and advising others.	
		e) Give First Aid to a person who has been bitten by poisonous/ dangerous insects.	First Aid to the person who has been bitten by dangerous or poisonous insects has been done properly.	Give First Aid to a person who has been bitten by dangerous or poisonous insects without considering important procedures.	By considering some of the principles and procedures, can practice giving First Aid to the person who has been bitten by dangerous/ poisonous insects.	Give First Aid to a person who has been bitten by dangerous or poisonous insects properly clearly by considering principles and procedures.	By considering principles and procedures, he or she can give First Aid to the person who has been bitten by different dangerous/ poisonous insects.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
	3.2 Applying health principles for good health	a) Explain the concept of a balanced diet.	The concept of a balanced diet has been explained correctly.	Explain the meaning of a balanced diet unclearly.	Explain the meaning of balanced diet and its components.	Explain the meaning and importance of a balanced diet and mention its components correctly.	Explain the meaning, importance of a balanced diet and mentions the components that form it through real examples.	20
b) Arrange the food components which form a balanced diet.		Arrangement of food components which form a balanced diet has been done correctly.	Arrange the food components which form a balanced diet without following procedures.	Arrange some of the food components which form a balanced diet.	Arrange a balanced diet by considering all components of food correctly.	Arrange the food components which form a balanced diet properly and give real examples.		
c) Explain ways of preventing HIV.		Ways of preventing HIV have been explained correctly.	Explain ways of preventing HIV without correct explanations.	Explain some ways of preventing HIV.	Explain ways of preventing HIV correctly.	Explain with examples and give advice on how to prevent HIV correctly.		

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
	3.3 Identifying various systems of the human body	a) Explain the concept of a digestive system.	The concept of a digestive system has been explained correctly by considering its meaning and importance.	Explain the concept of a digestive system without clear explanations.	Explain the meaning and importance of a digestive system.	The concept of digestive system is explained correctly basing on examples.	The concept of digestive system is well explained basing on the interrelation between different parts of the system.	21
		b) Identify parts of the digestive system.	Parts of the digestive system have been identified correctly.	Parts of the digestive system are identified without proper explanations.	Few parts of the digestive system are identified.	Parts of the digestive system are identified correctly.	Parts of the digestive system are identified, differentiated and explanation on each part made.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		c) Draw the digestive system.	The digestive system has been drawn correctly.	The digestive system is drawn without labeling.	The digestive system is drawn with some few labeling.	The digestive system is drawn and labeled correctly.	Digestive system is well drawn and labeled correctly and its functions are explained properly.	

3.8 Standard IV Contents

Table 4: Competencies for Standard IV

Main competency	Specific competency
1.0 Performing investigations and discoveries in Science and Technology	1.1 Investigating things that are in the environment 1.2 Identifying various types of energy and their uses 1.3 Identifying scientific and technological theories
2.0 Applying fundamentals of Science and Technology	2.1 Applying Information and Communication Technology (ICT) 2.2 Mastering scientific skills 2.3 Performing scientific experiments
3.0 Maintaining health and the environment	3.1 Applying principles of hygiene for good health and environment 3.2 Applying health principles for good health 3.3 Identifying various systems in the human body

Table 5: Content matrix for Standard IV

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
1.0 Performing investigations and discoveries in science and technology	1.1 Investigating things that are in the environment	a) Identify actions which destroy the safety of the environment.	Actions which can destroy the environment have been identified clearly.	Identify actions which destroy the environment without clear explanations.	Identify by mentioning some actions that destroy the environment.	The major actions which destroy the safety of the environment are identified with examples.	Identify through explanations major actions which destroy the environment and advise others to stop these acts.	21
		b) Show the habit of maintaining cleanliness and air safety.	The habit of maintaining cleanliness and safety of air has been shown clearly.	Show the habit of maintaining cleanliness and safety of air at a lower level.	Show some of the habits of maintaining cleanliness and air safety at a moderate level.	The habit of maintaining cleanliness and safety of air is shown clearly.	Show the habit of maintaining cleanliness and safety of air and advise others to develop it.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		c) Perform activities which verify the important needs for the living things which are water, heat, air, light and soil.	Activities of verifying the important needs for living things have been performed correctly.	Activities to verify the importance of water, heat, air, light and soil are performed unsystematically.	Perform some activities to verify the important needs of living things.	Activities to verify the importance of water, heat, air, light and soil for living things are performed correctly.	Perform experiments to verify the importance of water, heat, air, light and soil for living things and explain their relationships.	
	1.2 Identifying various types of energy and their uses	a) Identify sources of electric energy.	Sources of electric energy have been identified clearly.	Identify sources of electric energy without clear explanation.	Identify and mention some sources of electric energy.	Identify the main sources of electrical energy clearly.	Identify sources of electric energy and give some real examples.	21

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		b) Identify things which allow light to pass through by doing experiments.	Experiments to identify the things which allow light to pass through have been done clearly by considering scientific procedures.	Perform activities to identify things which allow light to pass through without considering scientific procedures.	Perform experiment of identifying things which allow light to penetrate using a few procedures.	Perform activities to identify things which allow light to pass through clearly by considering scientific procedures.	Perform experiment to identify things which allow light to pass through by following all scientific procedures and giving real examples.	21
		c) Do activities which show how shadows occur.	Actions to show how shadow occur have been done clearly.	Show how shadows occur without following any procedures.	Show how shadows occur.	Show how shadows occur clearly by following procedures.	Show how shadows occur by following procedures and give examples.	
	1.3 Identifying scientific and technological theories	a) Perform an experiment on three states of water.	Experiment to show three states of water has been done clearly.	Perform experiment to show three states of water without following any procedures.	Experiment to show changes on three states of water has been done.	Perform activities to show three states of water clearly.	Perform experiment to show three states of water and give some examples.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		b) Do experiments on freezing point of water.	Experiments on freezing point of water have been done clearly.	Perform experiment showing freezing point of water unclearly.	By considering some procedures, he or she can do experiment to show freezing point of water.	Perform experiment to show freezing point of water clearly by considering main procedures.	By following all procedures, he or she can do experiment to show freezing point of water and give some real examples.	
		c) Do experiments on boiling point of water.	Experiment on boiling point of water have been done clearly.	Perform experiment showing boiling point of water without following procedures.	By considering some procedures, he or she can do experiments to show boiling point of water.	Perform experiments to show boiling point of water clearly by considering main procedures.	By following all scientific procedures, he or she can do experiments to show boiling point of water and give explanations.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
2.0 Applying fundamentals of Science and Technology	2.1 Applying Information and Communication Technology (ICT)	a) Identify the means of communication.	Means of communication have been identified clearly.	Identify means of communication without clear explanations.	Identify and mention some of the means of communication.	Identify major means of communication with examples found in surrounding area.	Identifies and explain means of communication and advise others to use them.	20
		b) Perform activities on how to use a radio and television set.	Practice to use a radio and television set has been done clearly.	Practise to use a radio and television set without clear procedures	Practise how to use a radio and television set by following some procedures.	Practise to use a radio and television set by considering procedures correctly.	Practise to use a radio and television set by considering procedures and advise others on how to use them correctly.	
		c) Value tools for information and communication technology.	Tools for information and communication technology have been kept correctly.	Keep tools for information and communication technology unsystemically.	Value some tools for information and communication technology.	Use and value tools for ICT correctly.	Values tools for ICT and advise others to keep them.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
	2.2 Mastering scientific skills	a) Explain precautions to take when using refrigerators and cookers.	Precautions to take when using refrigerators and cookers have been explained correctly.	Precautions to take when using refrigerators and cookers are explained without clear explanations.	Few precautions taken when using refrigerators and various cookers are explained correctly.	The main precautions when using refrigerators and cookers are explained correctly.	The main precautions of using refrigerators and cookers are explained correctly and giving advice to others on how to use them has been given.	21
		b) Demonstrate how to use cookers.	Demonstrations on how to use cookers have been done correctly.	Demonstrate how to use cookers without considering procedures.	Apply a few procedures to demonstrate how to use cookers correctly.	Demonstrations on how to use cookers are done properly by considering all procedures.	Apply procedures to demonstrate how to use cookers and investigate the implication of the actions.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		c) Demonstrate how to use a refrigerator.	Demonstrations on how to use refrigerators have been done correctly.	Demonstrate how to use a refrigerator without considering procedures.	Apply few procedures to demonstrate how to use a refrigerator correctly.	Demonstrations on how to use a refrigerator are done properly.	Apply procedures to demonstrate how to use refrigerators and explain the importance of using them correctly.	
	2.3 Performing scientific experiments	a) Explain the concept of scientific experiments.	The concept of scientific experiments has been explained correctly.	The concept of scientific experiments is explained without following procedures.	The concept of scientific experiments is explained using some of the procedures.	The concept of scientific experiments has been explained correctly by using examples.	The concept of scientific experiments has been explained with critical examples.	21

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		b) Identify the steps of conducting a scientific experiment.	Steps towards scientific experiments have been identified correctly.	Steps towards scientific experiments are identified without clear explanations.	Some steps of scientific experiments are identified and mentioned with clear explanations.	The steps of scientific experiments are identified correctly.	Can identify and describe steps of doing scientific experiments and their uses	
		c) Do experiments on the needs of living things.	Experiments on living organisms needs have been done correctly by considering scientific procedures.	Experiments on living organisms needs are done without following procedures.	Experiments on living organisms needs are done using some few procedures.	Experiments on living organisms needs are done using scientific procedures correctly.	Experiments on living organisms needs are done using scientific procedures and the importance of each needs is explained correctly.	
3.0 Maintaining health and the environment	3.1 Applying principles of hygiene for good health and environment	a) Identify the sources of dirt and wastes in the environment.	Sources of dirt and wastes have been identified correctly.	Sources of dirt and waste products are identified without clear understanding.	Identifies through mentioning some few sources of dirt and waste products.	Identifies the main sources of dirt and waste products and give real examples.	Identifies sources of dirt and waste products and advise on how to stop them.	21

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		b) Indicate the habit of maintaining cleanliness at home and the school environment.	The habit of maintaining home and the school environments cleanliness has been indicated correctly.	Maintenance of home and school environmental cleanliness habit is indicated at a very low level.	Maintenance of home and school environmental cleanliness habit is indicated unsatisfactorily.	Maintenance of home and school environmental cleanliness habit is indicated at a high level correctly.	Maintenance of home and school environmental cleanliness habit is indicated and advice is given to maintain them.	
		c) Demonstrate how to give First Aid to a person who has fainted.	Demonstration on how to give First Aid to a fainted person has been done correctly.	Demonstrate how to give First Aid to a fainted person without considering procedures.	Demonstrate how to give First Aid to a fainted person by considering some procedures.	Procedures for giving First Aid to a fainted person are demonstrated correctly.	Demonstrate how to give First Aid to a fainted person correctly and explain the benefit of giving it.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
	3.2 Applying health principles for good health	a) Identify infectious and non-infectious diseases.	Infectious and non-infectious diseases have been identified correctly.	Infectious and non-infectious diseases are identified without clear explanations.	Identify some infectious and non-infectious diseases correctly.	Identify the infectious and non-infectious diseases correctly.	Identify the infectious and non-infectious diseases and explain precautions to be taken against them.	28
		b) Identify ways of preventing and controlling epidemics.	Ways of preventing and control epidemics have been identified correctly.	Identify ways of preventing and controlling epidemics without clear explanations.	Identify a few ways of preventing and controlling epidemics correctly.	Identify the ways of preventing and controlling epidemics correctly.	Identify the ways of preventing and controlling epidemics and taking precautions.	
		c) Explain the concept of body immunity.	The concept of body immunity has been explained using all aspects.	The concept of body immunity is explained without a clear explanation.	The concept of body immunity is explained using some important aspects.	The concept of body immunity is explained correctly by giving real examples.	Explain with examples the concept of body immunity and relate it to the body immune deficiency syndrome.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		d) Show the habit of caring for and respecting HIV and AIDS victims.	The habit of caring for and respecting HIV/AIDS victims has been shown clearly.	The habit of caring for and respecting HIV/AIDS victims is shown at a very low level.	Show some habit of caring for and respecting HIV/AIDS victims.	Give help to HIV/AIDS victims.	Give help by using polite language to people living with HIV/AIDS.	
	3.3 Identifying various systems in human body	a) Explain the defects that may occur in the digestive system.	The defects that may occur in the digestive system have been explained correctly.	Explain the defects that may occur in the digestive system unclearly.	Explain some of the defects that may occur in the digestive system.	Explain clearly the main defects that may occur in the digestive system.	Explains the defects that may occur in the digestive system correctly and advise others to take precautions.	21
		b) Explain habits to prevent the occurrence of the problems in the digestive system.	Habits of preventing occurrence of the problems in the digestive system have been explained correctly.	Give unclear explanations on the habits of preventing occurrence of the problems in digestive system.	Explain some of the habits that prevent the occurrence of the problems in the digestive system.	The habits of preventing the occurrence of the problems in digestive system are explained correctly.	Explains habits which prevent the occurrence of the problems in the digestive system using examples.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		c) Demonstrate proper eating habits.	Proper eating habits have been demonstrated correctly.	Poorly demonstrate proper eating habits.	Demonstrate few proper eating habits.	Proper eating habits are clearly demonstrated.	Demonstrate clearly proper eating habits and encourage others to practice them.	

3.9 Standard V Contents

Table 6: Competencies for standard V

Main competency	Specific competency
1.0 Performing investigations and discoveries in Science and Technology	1.1 Investigating things that are in the environment 1.2 Identifying various types of energy and their uses 1.3 Identifying scientific and technological theories
2.0 Applying fundamentals of Science and Technology	2.1 Applying Information and Communication Technology (ICT) 2.2 Mastering scientific skills 2.3 Performing scientific experiments
3.0 Maintaining health and the environment	3.1 Applying principles of hygiene for good health and environment 3.2 Applying health principles for good health 3.3 Identifying various systems in the human body

Table 7: Content matrix for Standard V

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
1.0 Performing investigations and discoveries in science and technology	1.1 Investigating various things that are in the environment	a) Identify the groups of living things.	Groups of living things have been identified correctly.	Identify groups of living things without a clear explanation.	Mention some of the main groups of living things.	Identify the main groups of living things through real examples.	Identify the groups of living things and describe their characteristics.	30
		b) Explain how plants make their food (photosynthesis)	Explanations on how plants make their food have been made correctly.	Explain unclearly how plants make their food without using clear explanation.	Explain some of the steps on how plants make their food.	Explain how plants make their food clearly (photosynthesis).	Explain how plants make their food clearly and help others to understand the process.	
		c) Explain the concept of reproduction in animals and plants.	The concept of reproduction in animals and plants has been explained correctly.	Explain unclearly the concept of reproduction in animals and plants.	Explain the concept of reproduction in animals and plants with a few details.	Explain clearly the concept of reproduction in animals and plants in detail.	Explain clearly the concept of reproduction in animals and plants with examples.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		d) Explain the interdependence between living things in the environment.	A clear explanation of the interdependence between living things in the environment has been made correctly.	Explain the interdependence between living things in the environment with an unclear explanation.	Explain some of the ways of interdependence between living things in the environment.	Give a clear explanation on the interdependence between living things in the environment.	Clearly explain the interdependence between living things in the environment with concrete examples.	
		e) Explain the concept of adaptation of living things to their environment.	Concept of adaptation of living things to their environment has been explained correctly.	Explain unclearly the concept of adaptation of living things to their environment.	Explain the concept of adaptation of living things to their environment by pointing out some of main features.	Explain clearly the concept of adaptation of living things to the environment by pointing out the main features.	Explain clearly with real examples the concept of adaptation of living things to the environment by pointing out the main features.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
	1.2 Identifying various types of energy and their uses	a) Demonstrate the uses of convex and concave lenses.	Demonstration on uses of concave and convex lenses has been done correctly.	Demonstrate the uses of concave and convex lenses without applying scientific procedures.	Demonstrate the use of concave and convex lenses by applying some of the scientific procedures.	Uses of concave and convex lenses can clearly be demonstrated.	Demonstrate the uses of concave and convex lenses using scientific procedures and providing examples of their uses.	24
		b) Conduct experiments on series and parallel electrical circuits.	Experiments on series and parallel circuits have been done correctly.	Conduct experiments on series and parallel circuits without applying scientific procedures.	Apply some scientific procedures to do experiments on series and parallel circuits.	Conduct experiments correctly on series and parallel circuits according to scientific procedures.	Conduct experiments correctly on series and parallel circuits by applying scientific procedures and explains their differences.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		c) Perform activities on magnetic principles.	Demonstration on magnetic principles has been done correctly and clearly.	Demonstrate magnetic principles without applying scientific procedures.	Demonstrate some of the magnetic principles by applying some of the scientific procedures.	Apply scientific procedures to demonstrate magnetic principles correctly.	Demonstrate actions to identify magnetic principles and explain their uses correctly.	
		d) Demonstrate the properties of light when it falls on a plain mirror.	Experiment on properties of light when it falls on a plain mirror has been demonstrated correctly.	Perform an experiment to demonstrate the properties of light when it falls on a plain mirror without applying scientific procedures.	By applying scientific procedures, he or she can do an experiment to demonstrate the properties of light when it falls on a plain mirror.	Demonstrate correctly the properties of light when falls on plain mirror by applying scientific procedures.	Perform correctly an experiment to demonstrate the properties of light and their uses when it falls on a plain mirror and relate them to real examples in the surrounding.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
	1.3 Identifying scientific and technological theories	a) Explain forces which cause changes in matter.	Forces which cause changes in matter have been explained correctly.	Explain forces which cause changes in matter unclearly.	Explains some of the forces which cause changes in matter.	The main forces which cause changes in matter can be explained correctly.	Forces which cause changes in matter and their uses can be explained clearly.	18
		b) Perform activities to show how forces cause changes in matter.	Activities to show how forces cause changes in matter have been performed correctly.	Without using procedures he or she can perform activities to show how forces cause changes in matter.	By applying procedures he or she can perform some activities to show how forces cause changes in matter.	By applying procedures he or she can perform activities to show forces which cause changes in matter correctly.	By applying procedures he or she can perform activities to show forces which cause changes in matter correctly and give explanation.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		c) Differentiate the concepts of physical and chemical changes.	Concepts of physical and chemical changes have been differentiated correctly.	Concepts of physical and chemical change can be explained without clear explanations.	Can explain only one concept either physical or chemical change without showing their differences.	Can differentiate the concepts of physical and chemical changes correctly.	Is able to differentiate the concepts of physical and chemical changes through examples.	
2.0 Applying fundamentals of Science and Technology	2.1 Applying Information and Communication Technology (ICT)	a) Explain the concept of a computer.	The concept of a computer has been explained correctly.	Explain unclearly the concept of a computer.	By considering some aspects the concept of a computer can be explained.	The concept of a computer can be explained clearly by considering the main aspects.	The concept of a computer can be explained by giving examples.	28
		b) Explain precautions to be taken when using a computer.	Precautions to be taken when using a computer have been explained correctly.	Gives unclear explanation on the precautions to be taken when using a computer.	Explain some precautions to be taken when using a computer.	Give a correct explanation of the precautions to be taken when using a computer.	Give a correct explanation on the precautions to be taken when using a computer with real examples.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		c) Use a word processor programmes.	A word processing programmes have been used properly.	Use a word processing programmes without applying proper procedures.	Use a word processing programme by applying some of the procedures.	Use a word processing programme by applying all the procedures correctly.	By using procedures, he or she can use a word processing programme and explain their importance.	
		d) Use computer game programme to promote learning skills (3Rs).	Computer game programme have been used to promote learning skills correctly.	Use a computer game programme to promote learning skills without applying correct procedures.	Use a computer game programme to promote learning skills by applying some of the procedures.	Use a computer game programme to promote learning skills correctly.	By using procedures, he or she can use a computer game programme to promote learning skills and differentiate those games.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
	2.2 Mastering scientific skills	a) Identify simple machines.	Simple machines have been identified correctly.	Identify simple machines without clear explanation.	Identify simple machines and some of their components.	Identify simple machines and their components correctly.	Identify simple machines with examples.	12
		b) Demonstrate the position of effort, load and fulcrum on a lever.	Demonstration of the position of effort, load and fulcrum has been done correctly.	Demonstrate the position of effort, load and fulcrum incorrectly.	Demonstrate some of the actions to show position of effort, load and fulcrum.	Demonstration of the position of effort, load and fulcrum is done correctly.	Demonstrate actions to show the position of effort, load and fulcrum with real examples.	
		c) Perform activities on simple machines.	Activities on simple machines have been performed correctly.	Perform activities on simple machines wrongly.	Perform activities on simple machines, using some of the aspects.	Perform activities on simple machines by applying all important aspects correctly.	Perform activities on simple machines and explain how they are used.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
	2.3 Performing scientific experiments	a) Do scientific experiments on heat energy.	Experiment on heat energy have been done by applying correct scientific procedures.	Perform experiments on heat energy without applying scientific procedures.	Perform experiments on heat energy by applying some steps of scientific procedures.	Perform experiments on heat energy by applying main steps of scientific procedures correctly.	Perform experiments on heat energy correctly and explain their uses.	18
		b) Do scientific experiments on light energy by using concave and convex mirror.	Experiments on light energy using the concave and convex mirror have been done by applying scientific procedures correctly.	Perform experiments on light energy by using the concave and convex mirror without applying scientific procedures.	Perform some experiments on light energy using the concave and convex mirror by applying steps of scientific procedures.	Perform experiments on light energy using the concave and convex mirror correctly by applying scientific procedures.	Perform experiments on light energy using a concave and convex mirror correctly by applying scientific procedures and explain their uses in real life situations.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		c) Do experiments on bending of light energy using lenses.	Experiments on bending of light energy using lenses have been done correctly.	Perform experiments on bending of light energy using lenses without applying scientific procedures.	Perform some experiments on bending of light energy using one type of lenses.	Perform experiments on bending of light energy using lenses correctly.	Perform experiments on bending of light energy using lenses correctly with examples.	
3.0 Maintaining health and the environment	3.1 Applying principles of hygiene for good health and environment	a) Maintain cleanliness and smartness of body and garments.	Maintenance of cleanliness, and smartness of the body and garments have been done correctly.	Maintain cleanliness and smartness of the body and garments without applying proper aspects.	Maintain cleanliness and smartness of the body and garments by applying some proper aspects.	Maintain high standard of cleanliness and smartness of the body and garments.	Maintain high standard of cleanliness and smartness of the body and garments by encouraging others to do the same.	18

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		b) Perform actions which destroy insects that transmit diseases.	Actions which destroy insects that transmit diseases have been performed properly.	Perform, actions of destroying insects which transmit diseases without applying proper aspects.	By applying some procedures, he or she can perform actions of destroying insects which transmit diseases.	Destroy insects which transmit diseases correctly.	By applying procedures, he or she can destroy the insects which transmit diseases and explain the same to others.	
		c) Give First Aid to a person burnt by fire or hot fluid.	Practising to give First Aid to a person burnt by fire or hot fluid have been done correctly.	Practise to give First Aid to a person burnt by fire or hot fluid without considering important steps.	By considering some of the steps, he or she can practise to give First Aid to a person burnt by fire or hot fluid.	The main practices to give First Aid to a person burnt by fire or hot fluid have been done correctly.	Give First Aid to a person burnt by fire or hot fluid and mention other things that may be used in such situations.	
	3.2 Applying health principles for good health	a) Identify health principles.	Health principles have been identified correctly.	Identify health principles without a clear explanation.	Identify and mention only some of the health principles.	Identify correctly the main health principles.	Identify correctly the main health principles and explain to others.	30

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		b) Explain the behaviour which help to maintain health.	Explanations of the behaviour which help to maintain health have been explained correctly.	Explain unclearly the behaviour which help to maintain health.	Explain only some of the behaviour which help to maintain health.	Explain clearly the behaviour which help to maintain health.	Explain clearly the behaviour which help to maintain health with real examples.	
		c) Explain the concept of epidemics their causes, symptoms and effects.	Concept of epidemics has been explained correctly.	Explain the concept of epidemics without applying the proper aspects.	Explain some of the aspects of the concept of epidemics.	Explain the concept of epidemic diseases correctly with examples.	Elaborate on the concept of epidemics correctly with examples.	
		d) Explain the means by which epidemics spread.	Means by which epidemics spread have been explained correctly.	Explain the means by which epidemics spread.	Explain some of the means by which epidemics spread.	Explain the means by which epidemics spread by applying the proper aspects correctly.	Explain means by which epidemics spread by applying the proper aspects correctly and advising to others.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		e) Explain main things to be considered by Antiretroviral (ARVs) users.	Main things to be considered by Antiretroviral (ARVs) users have been explained clearly.	Explain without clarity the main things to be considered by Antiretroviral (ARVs) users.	Explain only some of the main things to be considered by Antiretroviral (ARVs) users clearly.	Explain the main things to be considered by Antiretroviral (ARVs) users correctly.	Explain with examples the main things to be considered by Antiretroviral (ARVs) users.	
	3.3 Identifying various systems in the human body	a) Explain the concept of excretory system in the human body.	The concept of excretory system in the human body has been explained correctly.	Explain without clarity the concept of excretory system.	Explain the concept of excretory system by using some aspects.	Explain the concept of excretory system correctly.	Explain with examples the concept of excretory system correctly.	18
		b) Identify the lifestyles which may cause problems in the excretory system.	The lifestyles which may cause problems in the excretory system have been identified correctly.	Identify the lifestyles which may cause problems in the excretory system.	Identify some of the aspects of lifestyles which may cause problems in the excretory systems.	Identify the main lifestyles which may cause problems in the excretory system correctly.	Identify and explain with examples the lifestyles which may cause problems in the excretory system correctly.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		c) Identify proper life styles to avoid problems in the excretory system of the human body.	Identify the proper lifestyles which cannot cause problems in the excretory system of the human body correctly.	Identify the proper lifestyles which cannot cause problems in the excretory system of the human body without a clear explanation.	Identify some of the proper lifestyles which cannot cause problems in the excretory system of the human body correctly.	Identify the main proper lifestyles which cannot cause problems in the excretory system of the human body correctly.	Identify the proper lifestyles which cannot cause problems in the excretory system of the human body correctly with real examples.	

3.10 Standard VI Contents

Table 8: Competencies for standard VI

Main competency	Specific competency
1.0 Performing investigations and discoveries in Science and Technology	1.1 Investigating things that are in the environment 1.2 Identifying various types of energy and their uses 1.3 Identifying scientific and technological theories
2.0 Applying fundamentals of Science and Technology	2.1 Applying Information and Communication Technology (ICT) 2.2 Mastering scientific skills 2.3 Performing scientific experiments
3.0 Maintaining health and the environment	3.1 Applying principles of hygiene for good health and environment 3.2 Applying health principles for good health 3.3 Identifying various systems in the human body

Table 9: Content matrix for Standard VI

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
1.0 Performing investigations and discoveries in Science and Technology	1.1 Investigating various things that are in the environment	a) Identify the gases which form air components.	Gases which form air components have been identified correctly.	Identify gases which form air components without clear elaborations.	Identify some of the gases which form air components.	Identify the gases which form air components correctly.	Identify the gases which form air components and explain their uses correctly.	25
		b) Identify essential needs for plant growth.	Essential needs for plant growth have been identified correctly.	Identify essential needs for plant growth without correct explanations.	Identify some of the essential needs for plant growth.	Identify the essential needs for plant growth correctly.	Identify the essential needs for plant growth and explain the effects of their absence.	
		c) Perform experiments to prove how photosynthesis takes place in plants.	The experiments to prove how photosynthesis takes place in plants have been done correctly.	Perform experiments to prove how photosynthesis takes place in plants without considering important procedures.	Perform experiments to prove how photosynthesis takes place in plants by considering some important procedures.	Perform experiments to prove how photosynthesis takes place in plants correctly.	Perform experiments to prove how photosynthesis takes place in plants correctly and explain its importance.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		d) Identify types of soil.	Types of soil have been identified correctly.	Identify the types of soil without clear explanation.	Identify some of the types of soil correctly.	Identify types of soil correctly with clear explanations.	Identify main types of soil correctly and describe their characteristics.	
		e) Identify activities which cause soil effects.	Activities which cause soil effects have been identified correctly.	Identify activities which cause soil effects without clear explanations.	Mention some activities which cause soil effects.	Identify activities which cause soil effects with examples and clear explanations.	Identify activities which cause soil effects with examples and explain their effects correctly.	
		f) Perform soil conservation activities.	Activities to conserve the soil have been performed correctly.	Perform activities to conserve the soil without applying scientific procedures.	Perform some activities to conserve the soil by applying some proper procedures.	Perform activities to conserve the soil correctly.	Perform activities to conserve the soil correctly and explain their benefits.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
	1.2 Identifying various types of energy and their uses	a) Perform activities which prove the Ohm's law in electrical circuit.	Activities to prove Ohm's law in electrical circuit have been performed.	Perform activities to prove Ohm's law in an electric circuit without applying scientific principles.	Perform some of the activities to prove Ohm's law in an electric circuit.	Perform activities to prove Ohm's law in an electric circuit with examples.	Perform activities to prove Ohm's law in an electric circuit and explain their importance.	25
		b) Explain the concept of protecting an electric circuit and buildings against high voltage current.	The concept of protecting an electric circuit and buildings against high voltage has been explained correctly.	Explain the concept of protecting an electric circuit and buildings against high voltage without clear explanations.	Explain the concept of protecting an electric circuit and buildings against high voltage by applying some of the aspects.	Explain the concept of protecting an electric circuit and buildings against high voltage correctly.	Explain the concept of protecting an electric circuit and buildings against high voltage correctly with real examples from daily life.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		c) Explain the concept of renewable energy.	The concept of renewable energy has been explained.	Explain the concept of renewable energy without referring to important aspects.	Explain the concept of renewable energy by applying some important aspects.	Explain the concept of renewable energy by applying important aspects correctly.	Explain the concept of renewable energy with real examples of its uses.	
		d) Explain how to generate electric energy in various ways.	How to generate electric energy in various ways has been explained correctly.	Explain without clarity how to generate electric energy in various ways.	Explain how to generate electric energy in various ways by applying some important aspects.	Explain how to generate electric energy in various ways correctly.	Explain how to generate electric energy in various ways by applying important aspects correctly and explain its benefits.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		e) Explain the concept of complex machine.	The concept of complex machine has been explained correctly.	Explain the concept of complex machine without clear explanations.	Explain the concept of complex machine by mentioning some of the aspects.	Explain the concept of complex machine by applying important aspects correctly.	Elaborate on the concept of a complex machine with examples.	
	1.3 Identifying scientific and technological theories	a) Perform experiment on chemical and physical changes.	Experiment on physical and chemical changes has been done correctly.	Perform an experiment on the physical and chemical changes without considering procedures.	Perform an experiment on the physical and chemical changes by considering some procedures.	Perform an experiment on the physical and chemical changes correctly.	Perform an experiment on the physical and chemical changes with real examples.	16
		b) Conduct experiment on diffusion.	Experiment on diffusion have been done correctly.	Perform an experiment on diffusion without applying procedures.	Perform an experiment on diffusion by applying some procedures.	Perform an experiment on diffusion by applying procedures correctly.	Perform an experiment on diffusion correctly with real examples of its uses.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		c) Perform experiments on osmosis.	Experiments on osmosis have been done correctly.	Perform experiments on osmosis without applying scientific procedures.	Perform experiments on osmosis by applying some scientific procedures.	Perform experiments on osmosis by applying scientific procedures correctly.	Perform experiments on osmosis correctly with real examples of their uses.	
2.0 Applying fundamentals of Science and Technology	2.1 Applying Information and Communication Technology (ICT)	a) Use excel programme.	Activities on how to use the excel programme have been performed correctly.	Perform activities on how to use the excel programme without following proper procedures.	Perform activities on how to use the excel programme by following some procedures.	Perform activities on how to use the excel programme by correctly.	Perform activities on how to use the excel programme correctly and explain its uses.	30

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		b) Explain the concept of Internet security on any network connection.	The concept of Internet security on any network connection has been explained correctly.	Explain without clarity the concept of Internet security without clear explanation.	Explain the concept of Internet security on the network connection by applying some of the aspects.	Explain clearly the concept of Internet security on the network connection.	Explain the concept of Internet security on the network connection correctly and mention its benefits.	
		c) Explain effects of the Internet.	The effects of the Internet have been explained correctly.	Explain effects of the Internet without considering important aspects.	Explain some of the effects of the Internet.	Explain the effects of the Internet correctly.	Explain the effects of the Internet with clear examples.	
		d) Explain the concept of e-mail.	The concept of e-mail has been explained correctly.	Explain the concept of e-mail without clear information.	Explain the concept of e-mail by applying some of the important aspects.	Explain the concept of e-mail correctly.	Explain the concept of e-mail correctly with its benefits.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		e) Practise how to use e-mail.	Practising how to use e-mail has been done correctly.	Practise how to use e-mail without applying important procedures.	Practise how to use e-mail by applying some of the important procedures.	Practice how to use e-mail by applying important procedures correctly.	Practice how to use e-mail by applying important procedures and advice others to use.	
		f) Perform activities on using search engines to find scientific and technological information.	Activities on using search engine to find scientific and technological information have been performed correctly.	Perform activities on using search engines to get scientific and technological information without considering important procedures.	Perform activities on using search engines to get scientific and technological information.	Perform activities on using search engines to get scientific and technological information through examples.	Perform activities on using search engines to get scientific and technological information correctly and to explain their benefits.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		g) Use telephone and computer to find scientific information.	Telephone and computer have been correctly used to find scientific information .	Use telephone and computer to find scientific information without considering procedures.	Find scientific information using a telephone and computer by following some important procedures.	Use telephone and computer correctly to find scientific information.	Use telephone and computer correctly to find scientific information and advise others on how to do the same.	
	2.2 Mastering scientific skills	a) Identify pulley wheel simple machines.	Pulley wheel simple machines have been identified correctly.	Identify pulley wheel simple machines without clear explanation.	Identify and mention some of the pulley wheel simple machines aspects and explain clearly.	Identify the main pulley wheel simple machines correctly.	Identify pulley wheel simple machines correctly with concrete examples.	20

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		b) Do the calculations on load and effort pulley wheel.	Calculations on load and effort have been done correctly.	Perform calculations on load and effort without proper procedures.	Perform calculations on load and effort by applying some procedures	Perform calculations on load and effort by applying proper formula.	Perform calculations on load and effort by applying proper formula, correctly and relate the answers to the value.	
		c) Explain the concept of work.	The concept of work has been explained correctly.	Explain without clarity the concept of work.	Explain with clear elaboration the concept of work.	Explain the concept of work with real examples correctly.	Explain properly the concept of work how work is done.	
		d) Calculate work done.	The work done has been calculated using the correct formula.	Calculate the work done without using the correct formula.	Write the formula without calculating the work done.	Calculate the work done using the correct formula.	Calculate the work done correctly with clear examples.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
	2.3 Performing scientific experiments	a) Perform experiments on electric energy.	Experiments on electric energy have been performed by applying scientific procedures correctly.	Perform electric energy experiments without applying scientific procedures.	Perform electric energy experiments by applying some of the scientific procedures.	Perform electric energy experiments by applying scientific procedures correctly.	Perform electric energy experiments by applying scientific procedures correctly and explain their importance.	15
		b) Perform experiments on renewable energy.	Experiments on renewable energy have been done by applying scientific procedures correctly.	Perform experiments on renewable energy without using scientific procedures.	Perform experiments on renewable energy using some scientific procedures.	Perform experiments on renewable energy using scientific procedures correctly.	Perform experiments on renewable energy using scientific procedures and explain their importance correctly.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		c) Perform practicals on how to generate electricity using the dynamo and a dry cell.	Practicals on how to generate electricity using the dynamo and dry cell have been performed correctly.	Perform practicals on how to generate electricity using the dynamo and dry cell without applying scientific procedures.	Perform some of the practicals on how to generate electricity using the dynamo and dry cell.	Perform practicals on how to generate electricity using the dynamo and dry cell correctly.	Perform practicals on how to generate electricity using the dynamo and dry cell correctly with real examples.	
3.0 Maintaining health and the environment	3.1 Applying principles of hygiene for good health and environment	a) Explain the importance of maintaining cleanliness and smartness of garments.	The importance of maintaining cleanliness and neatness of garments has been explained correctly.	Explain without clarity the importance of maintaining cleanliness and neatness of garments.	Explain some of the aspects of the importance of maintaining cleanliness and neatness of garments.	Explain the importance of maintaining cleanliness and neatness of garments correctly.	Explain the importance of maintaining cleanliness and neatness of garments and explain its benefits.	15

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		b) Identify sources of dirty and wastes.	Sources of dirty and wastes have been identified clearly.	Identify sources of dirty and wastes without correct explanations.	Identify some of the sources of wastes and dirty.	Identify sources of dirty and wastes correctly with examples.	Identify sources of dirty and wastes and explain precautions to take to prevent them.	
		c) Give First Aid to a person who has been bitten by a snake, who has a fractured bone, is drowning in water, is vomiting and has diarrhea.	Practices on how to give First Aid to a person who has been bitten by a snake, has fractured bone, is drowning in water, is vomiting and has diarrhea have been done by applying correct procedures.	Practise how to give first Aid to a person who has been bitten by a snake, has a fractured bone, is drowning in water, is vomiting and has diarrhea without considering procedures.	Give First Aid to a person who has been bitten by a snake, has fractured bone, is drowning in water, is vomiting and has diarrhea by considering some procedures.	Use all main practices for giving First Aid to a person who has been bitten by a snake, has a fractured bone, is drowning in water, is vomiting and has diarrhea by considering procedures.	Gives first Aid to a person who has been bitten by a snake, has fractured bone, is drowning in water, is vomiting and has diarrhea by considering procedures correctly and give advice to others.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
	3.2 Applying health principles for good health	a) Explain importance of cleanliness and safety of diet to the victim of HIV/AIDS.	The importance of cleanliness and safety diet to the HIV/AIDS victim has been explained correctly.	Explain incorrectly the importance of cleanliness and safety diet to HIV/AIDS victim.	Explain some of the importances of cleanliness and safety diet to the HIV/AIDS victim.	Explain the main importance of cleanliness and safety diet to the HIV/AIDS victim correctly.	Explain the importance of cleanliness and safety diet to the HIV/AIDS victim correctly and advise others accordingly.	20
		b) Explain the relationship between sexually transmitted diseases and HIV/AIDS.	The relationship between sexually transmitted diseases and HIV/AIDS has been explained correctly.	Explain incorrectly the relationship between sexually transmitted diseases and HIV/AIDS.	Explain some of the relationships between sexually transmitted diseases and HIV/AIDS correctly.	Explain the main relationship between sexually transmitted diseases and HIV/AIDS correctly.	Explain by comparing and differentiating the relationship between sexually transmitted diseases and HIV/AIDS correctly.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		c) Explain the effects of HIV and AIDS to the family, the society and the nation.	Effects of HIV and AIDS on the family, society and nation have been explained correctly.	Explain the effects of HIV and AIDS on the family, society and nation without clear explanation.	Explain some of the effects of HIV and AIDS on the family, society and nation.	Explain main effects of HIV and AIDS on the family society and nation correctly.	Explain effects of HIV and AIDS on the family society and nation correctly with examples.	
		d) Identify hereditary diseases.	Hereditary diseases have been identified correctly.	Identify hereditary diseases without correct explanations.	Identify some of the hereditary diseases.	Identify the main hereditary diseases correctly.	Identify main hereditary diseases correctly and advise others on things to be considered.	
		e) Identify different groups of people who need special health services.	Different groups of people who need special health service have been identified clearly.	Identify the different groups of people who need special health services without correct explanations.	Identify some of the groups of people who need special health service with some explanation.	Identify groups of people who need special health services correctly.	Identify with examples different groups of people who need special health services correctly and give advice on how to care for them.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
	3.3 Identifying various systems of the human body	a) Identify the blood circulation system.	The blood circulation system has been identified correctly.	Identify the blood circulation system without a correct explanation.	Identify some of the parts of the blood circulation system.	Identify main parts of the blood circulation system correctly.	Identify the blood circulation system correctly and explain its importance.	30
		b) To identify defects that may occur in the blood circulation system.	Defects that may occur in the blood circulation system have been identified correctly.	Identify defects that may occur in the blood circulation system without correct explanations.	Identify some of the defects that may occur in the blood circulation system.	Identify the major defects that may occur in the blood circulation system with examples.	Identify defects that may occur in the blood circulation system and advise on necessary precautions to take.	
		c) Identify parts of the reproductive system.	The parts of the reproductive system are identified correctly.	Identify parts of the reproductive system without correct explanations.	Identify some of the parts of the reproductive system.	Identify the main parts of the reproductive system correctly.	Identify the main parts of the reproductive system and explain their functions correctly.	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		d) Identify the problems that may occur in the female and male reproductive system.	Problems that may occur in the female and male reproductive system have been explained correctly.	Identify some of the problems that may occur in female and male reproductive system without a correct explanation.	Identify some problems that may occur in the female and male reproductive system with correct explanation.	Identify major problems that may occur in the female and male reproductive system correctly.	Differentiate and explain the problems that may occur in the female and male reproductive system correctly.	
		e) Explain the concept of puberty for boys and girls.	The concept of puberty for boys and girls has been explained correctly by considering important aspects.	Explain the concept of puberty for boys and girls without considering the important aspects.	Explain the concept of puberty for boys and girls by considering some of the important aspects.	Explain the concept of puberty for boys and girls correctly by considering all the important aspects.	Explain the concept of puberty for boys and girls correctly and advise accordingly on things to consider.	
		f) Identify family planning methods.	Family planning methods have been identified correctly.	Identify family planning methods without correct explanations.	Identify some of the family planning methods.	Identify family planning methods correctly.	Identify family planning methods correctly with examples.	

3.11 Standard VII Contents

Table 10: Competencies to be developed by a Standard VII pupil

Main competency	Specific competency
1.0 Performing investigations and discoveries in Science and Technology	1.1 Investigating things that are in the environment 1.2 Identifying various types of energy and their uses 1.3 Identifying scientific and technological theories
2.0 Applying fundamentals of Science and Technology	2.1 Applying Information and Communication Technology (ICT) 2.2 Mastering scientific skills 2.3 Performing scientific experiments
3.0 Maintaining health and the environment	3.1 Applying principles of hygiene for good health and environment 3.2 Applying health principles for good health 3.3 Identifying various systems in the human body

Table 11: Content matrix for Standard VII

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
1.0 Performing investigations and discoveries in Science and Technology	1.1 Investigating various things found in the environment	a) Describing safety signs found in the environment	Safety signs found in the environment have been described using relevant examples.	Gives the meaning of safety signs in the environment	Gives the meaning and lists various safety signs found in the environment	Explains the types of safety signs found in the environment by providing the meaning and description of various types of safety signs	Describes safety signs found in the environment using relevant examples	12
		b) Explaining the uses of various safety signs found in the environment	Uses of various safety signs in different environments have been explained using relevant examples.	Mentions the uses of various safety signs found in the environment	Explains the uses of various safety signs found in the environment	Explains different uses of safety signs found in different environments	Explains the uses of various safety signs found in different environments using relevant examples	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
	1.2 Identifying various types of energy and their uses	a) Describing how to generate electricity using water waves	Generation of electricity using water waves has been described.	Mentions the characteristics of sites suitable for building tidal electricity plant	Mentions the parts of a tidal electricity plant	Describes the parts of a tidal electricity plant	Describe how to generate electricity using water waves	18
		b) Describe how to generate electricity using geothermal energy	Generation of electricity using geothermal energy has been described.	Mentions the suitable sites for generating electricity using geothermal energy	Mentions the parts of a geothermal electrical plant	Describes the parts of geothermal electrical plant	Describes how to generate electricity using geothermal energy	
		c) Evaluating the quality of renewable energy as compared to non-renewable energy	The quality of renewable energy as compared to that of non-renewable energy has been evaluated using relevant examples.	Lists various sources of energy	Explains the characteristics of various sources of energy	Compares and contrasts the quality of renewable against non-renewable energy	Evaluates using relevant examples the quality of renewable energy as compared to non-renewable energy	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
	1.3 Identifying scientific and technological theories	a) Analysing the properties of objects which float on or sink in water	The properties of floating or sinking objects have been analysed using relevant examples.	Lists the properties of objects that float on or sink in water	Mentions and explains the properties of objects that float on or sink in water	Describes the properties of objects that float on or sink in water	Analyses the properties of objects that float on or sink in water, using relevant examples	
		b) Relating the principles of floatation of object and how marine vessels operate	The ways in which marine vessels operate have been related to the principles of floatation of objects using relevant examples.	Lists the objects that float in water	Explains the meaning of floatation of objects in water	Identifies the principles of floatation of objects in water	Relates the principles of floatation of object to the way marine vessels operate using relevant examples	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		c) Constructing sinking or floating objects' models which demonstrate how the Archimedes principle operates	Floating or sinking models have been constructed and Archimedes principle and its application have been shown using relevant examples.	Mentions materials used in constructing sinking or floating objects' models	Constructs sinking or floating objects' models	Constructs sinking or floating objects' models and gives reasons	Constructs floating or sinking objects' models to demonstrate the application of the Archimedes principle	
2.0 Applying fundamentals of Science and Technology	2.1 Applying Information and Communication Technology (ICT)	a) Describing the concept of antenna	The concept of antenna has been described using relevant examples	Gives the meaning of antenna	Explains the importance of using antenna in different devices	Describes the concept of antenna	Describes the concept of antenna using relevant examples	
		b) Analysing the types of antenna used in various devices	Types of antenna used in various devices have been analysed using relevant examples.	Lists types of antenna used in various devices	Explains various parts of antenna used in various devices	Describe types of antenna used in various devices	Analyses the types of antenna used in various devices using relevant examples	24

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		c) Evaluating the quality of antenna used in various devices	The quality of antenna used in various devices has been evaluated based on its properties.	Lists the general properties of an antenna in various devices	Explains the properties of antenna used in various devices	Explains the criteria for the quality of various antenna in their applications	Evaluates the quality of antenna used in various devices based on their properties	
		d) Analysing the importance of the materials used to make an antenna	The importance of the materials used in making an antenna have been analysed using appropriate examples.	Mentions the materials used in making an antenna	Describes the nature of each material used to make an antenna	Analyses the importance of each material used to make an antenna	Analyses the importance of the materials used in making an antenna using appropriate examples	
		e) Fabricating an antenna	An antenna has been fabricated following required steps.	Mentions all the materials used to design an antenna	Explains the importance of each material used in fabricating an antenna	Draws the structure of an antenna	Fabricates an antenna following the required steps	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
	2.2 Mastering scientific skills	a) Analysing the structure of a complex machine	The structure of a complex machine has been analysed using appropriate examples.	Gives the meaning of a complex machine	Lists simple machines that make up a complex machine	Explains the function of each simple machine that makes up a complex machine	Analyses the structure of a complex machine using appropriate examples	18
		b) Using complex machines and applying the skills in operating other complex machines	Complex machines have been used correctly and skills have been applied in operating other types of complex machines.	Mentions the steps to be followed when using complex machines	Explains the steps to be followed in using complex machines	Uses complex machines based on appropriate steps	Uses complex machines and applies the acquired skills in operating other types of complex machines	
		c) Demonstrating the procedure for maintaining complex machines	The procedure for maintaining complex machines have been demonstrated.	Mentions the procedure for maintaining complex machines	Explains the importance of maintaining complex machines	Describes the procedure for maintaining various complex machines	Demonstrates the procedure for maintaining complex machines	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
	2.3 Performing scientific experiments	a) Carrying out experiments on fire fighting	Experiments on fire fighting have been carried out considering classes of fire and using appropriate fire extinguishers.	Mentions different fire extinguishers	Explains how to extinguish fire using different fire extinguishers	Carrying out fire fighting experiments using fire extinguishers	Carries out experiments on fire fighting considering classes of fire using appropriate fire extinguishers	20
		b) Carrying out experiments to identify the properties of acids and bases	Experiments for identifying the properties of acids and bases have been carried out.	Gives the meanings of acids and bases	Lists the acidic and basic materials	Distinguishes the properties of acids and bases	Conducts experiments to identify properties of acids and bases	20
		c) Carrying out experiments to identify necessary conditions for rusting and how to prevent rusting	Experiments have been carried out to identify the necessary conditions for rusting and ways of preventing it.	Mentions objects that rust	Identifies the conditions necessary for rusting	Explains how rust occurs and ways to prevent rusting	Performs experiments to identify the conditions for rusting and shows how to prevent rusting	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
3.0 Maintaining health and the environment	3.1 Applying principles of hygiene for good health and environment	a) Explaining the benefits of waste disposal	The benefits of waste disposal have been explained with appropriate examples.	Lists the steps of waste disposal	Gives the meaning of waste disposal	Explains the benefits of waste disposal	Explains with appropriate examples the benefits of waste disposal	18
		b) Discussing steps of waste disposal	Steps of waste disposal have been discussed using relevant examples.	Mentions steps of waste disposal	Explains various steps of waste disposal	Explains the importance of following the steps of waste disposal	Discusses steps of waste disposal using relevant examples	
		c) Describing an incinerator and the types of waste to be destroyed	Incinerators and types of waste to be destroyed have been described using relevant examples.	Gives the meaning of an incinerator	Mentions types of incinerators used for destroying wastes	Explains the structure of an incinerator and the types of wastes to be destroyed	Describes the incinerators and the waste to be destroyed using relevant examples	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
	3.2 Applying health principles for good health	a) Distinguishing diets according to the needs of specific groups of people	Diets have been distinguished according to the needs of specific groups of people using relevant examples.	Mentions specific groups of people and their diets	Explains the advantages of various groups of food to specific groups of people	Distinguishes diets according to the needs of specific groups of people	Distinguishes diets according to the needs of specific groups of people using relevant examples	18
		b) Describing the importance of physical exercises to different groups of people	The importance of physical exercises to different groups of people has been described.	Mentions types of physical exercises	Explains how to perform different types of physical exercises	Explains different types of physical exercises for different groups of people	Describes the importance of physical exercises to different groups of people	
		c) Analysing the impacts of lack of physical exercises on different groups of people	The impacts of lack of physical exercises on different groups of people have been clearly identified using relevant examples.	Mentions the effects of lack of physical exercises on different groups of people	Explains the impacts of lack of physical exercises	Analyses the impacts of lack of physical exercises on different groups of people	Analyses with examples the impacts of lack of physical exercises on different groups of people	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
	3.3 Identifying various systems of the human body	a) Elaborating the human nervous system	The human nervous system has been elaborated using relevant examples.	Defines the nervous system	Mentions parts of the nervous system of the human being	Explains the functions of each part of the nervous system of the human being	Elaborates human nervous system using relevant examples	36
		b) Describing the functions of sense organs in the human body	Different functions of sense organs in the human body have been described with relevant examples.	Lists the sense organs of the human body	Defines the sense organs of the human body	Explains the functions of each sense organ in the human body	Describes the functions of different sense organs of the human body with relevant examples	
		c) Elaborating the disorders affecting the nervous system of the human being	The disorders affecting the nervous system of a human being and how to avoid them have been elaborated.	Mentions the disorders of the nervous system of the human being	Identifies the causes of the disorders of human nervous system	Explains the causes of disorders of the human nervous system	Elaborates on the disorders of the nervous system of the human being and how to avoid them	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		d) Elaborating the human respiratory system	The human respiratory system has been elaborated using diagrams.	Defines the respiratory system	Gives the meaning and identifies parts of the human respiratory system	Gives the meaning and explains parts of the human respiratory system	Elaborates on the parts of the human respiratory system using diagrams	
		e) Carrying out an experiment to investigate the breathing mechanism	An experiment to investigate the breathing mechanism in a human being has been carried out.	Mentions the materials required in carrying out the experiment to investigate the breathing mechanism	Mentions the materials required in carrying out the experiment and explains the procedure of carrying out the experiment	Describes the uses of each material and explains the procedure followed in carrying out the experiment	Carries out an experiment to show the breathing mechanism in a human being	

Main competency	Specific competency	Activities to be done by the pupil	Assessment criteria	Benchmarking of the pupil's performance				No. of periods
				Below average	Average	Good	Very good	
		f) Elaborating on the causes of respiratory disorders and ways to avoid them	The causes of respiratory disorders and ways to avoid them have been elaborated with relevant examples.	Mentions the respiratory system disorders	Mentions the causes of the respiratory system disorders	Explains the causes of respiratory system disorders	Elaborates with relevant examples the causes of the respiratory system disorders and how to avoid them	