MINISTRY GENERAL EDUCATION

COMMON SCHEME OF WORK FOR INTEGRATED SCIENCE

GRADE NINE (9) TERM ONE 2019 AND BEYOND

WK	WORK TO BE DONE	METHODS	LTAs	RESOURCES
1	REVISIONS FROM END OF TERM TESTS	CLASS AND GROUP DISCUSSION (VARIETY)	PAST PAPERS QUESTIONS	INTEGRATED SCIENCE 8
2	THE HUMAN BODY • Describe the blood circulatory system. • Identify the components of blood and their functions • Describe the internal structure of the heart • Illustrate the movement of blood in the double circulatory system	Class and group discussion	Models & Chart showing blood circulation system	Integrated science 9 (other relevant books)
3	THE HUMAN BODY • Identify the role of the heart, lungs and blood vessels in blood circulation • Take the pulse rates at rest and after physical exercises. Identify organs of the respiratory system of a human being. • Explain the functions of the organs of the respiratory system	Group and class discussion demonstration	Stop watches charts	Integrated science 9 (other relevant books)

4	**THE HUMAN BODY** • **Demonstrate the mechanism of ventilation in a human being.** • **Describe the exchange of oxygen and carbon dioxide in the lungs.** • **Explain tissue respiration.** **TEST 1 (Theory and Practical)**	**Class and group discussion**	**Chart showing respiratory system**	**Integrated science 9 (other relevant books)**
5	**THE HUMAN BODY** • **Explain the effect of cigarette smoking on the respiratory system.** • **Revisions of the topic** • **Writing of end of topic test**	**Class and group discussion**	**Relevant pictures**	**Integrated science 9 (other relevant books)**
6	**HEALTH** • **Identify the common sexually transmitted infections** • **Explain transmission of Sexually Transmitted Infections** • **Describe the prevention of STIs.** • **Explain the impact of HIV and AIDS on the population**	**Class and group discussion**	**Relevant pictures and charts**	**Integrated science 9 (other relevant books)**

7	**THE ENVIRONMENT** • Describe what Oxygen and Carbon cycle are • Identify factors affecting Oxygen and Carbon cycle • Describe the nitrogen cycle • Explain the natural balance of gases in the atmosphere	Class and group discussion	Relevant chart showing common diseases transmitted sexually	Integrated science 9 (other relevant books)
8	**THE ENVIRONMENT** • Describe the importance of water management in our daily life. • Describe effective water management system **TEST 2**	Class and group discussion	Chart showing oxygen and carbon cycles	Integrated science 9 (other relevant books)
9	**PLANTS AND ANIMALS** • Explain the importance of domesticating animals and plants. • Explain ways of improving domestic breeds of animals and plants • Identify animals and plants threatened by extinction. • Describe the importance of protecting endangered animals and plants. • Explain methods of protecting endangered	Class and group discussion	Chart showing nitrogen cycles	Integrated science 9 (other relevant books)

	animals and plants			
10	**PLANTS AND ANIMALS** • **Revision and end of topic test.** • **Identify the conditions necessary for photosynthesis.** • **Identify the products of photosynthesis in a leaf.** • **Relate the process of photosynthesis to respiration.**	**Class and group discussion**	**Field trip on water sources**	**Integrated science 9 (other relevant books)**
11	**Revision on term's work**	**Class and group discussion**	**Relevant charts**	**Integrated science 9**
12-13	**Writing of end of term tests**	**individual**	**Examination papers**	**Integrated science 9**

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GRADE NINE (9) TERM TWO 2019 AND BEYOND

WK	WORK TO BE DONE	METHODs	LTAs	RESOURCES/ REFERENCE
1	REVISION FROM TERM ONE'S WORK	CLASS AND GROUP DISCUSION	PAST PAPERS	INTERGRATED SCIENCE GRADE 9 TEXT BOOK (ANY RELAVANT TEXT BOOK)
2	PLANTS AND ANIMAL • Describe the process of transpiration. • Investigate the factors that affect the rate of transpiration. • Explain the importance of transpiration in plants.	CLASS DISCUSION	Potted plants	INTERGRATED SCIENCE GRADE 9 TEXT BOOK (ANY RELAVANT TEXT BOOK)

3	**MATERIALS AND ENERGY.** • **Describe what chemical reaction is.** • **Describe the nature of chemical reactions.** • **Classify different types of chemical reactions.** • **Describe the chemical reaction of synthesis.**	**GROUP WORK**	**Relevant materials**	**INTERGRATED SCIENCE GRADE 9 TEXT BOOK** **(ANY RELAVANT TEXT BOOK)**
4	**MATERIALS AND ENERGY.** • **Demonstrate the chemical reaction of water with electricity.** • **Explain the law of conservation of matter.** • **Describe the different types of lenses.** • **Demonstrate the location of the focal point and focal length of a lens.** **TEST 1**	**Demonstration** **Class and group discussion**	**Relevant material** **chart**	**INTERGRATED SCIENCE GRADE 9 TEXT BOOK** **(ANY RELAVANT TEXT BOOK)**

5	**MATERIALS AND ENERGY** • **. Explain the mechanism of a converging lens to produce real and virtue images.** • **Explain the uses of converging and diverging lens.** • **Demonstrate the production of a spectrum from white light.** • **Demonstrate the combination of colours of the spectrum to produce white light.**	**Demonstration** **Class and group discussion**	**Lenses** **Light source**	**INTERGRATED SCIENCE GRADE 9 TEXT BOOK** **(ANY RELAVANT TEXT BOOK)**
6	**MATERIALS AND ENERGY.** • **Describe the production of a rainbow.** • **Explain why sunsets and sunrise appear red.** • **Explain that colours of an object depend on the colour of light it reflects.** • **Describe the effects of colour filters on light rays.**	**Demonstration** **Class and group discussion**	**Relevant materials**	**INTERGRATED SCIENCE GRADE 9 TEXT BOOK** **(ANY RELAVANT TEXT BOOK)**

7	**MATERIALS AND ENERGY.** • **Explain the difference between electric current and voltage.** • **Demonstrate the use of an ammeter to measure electric currents in a circuit** • **Demonstrate how to measure potential difference in a circuit.** • **Describe the relationship between potential difference and current.**	**Class and group discussion** **demonstration**	**Ammeter** **Voltmeter**	**INTERGRATED SCIENCE GRADE 9 TEXT BOOK** **(ANY RELAVANT TEXT BOOK)**
8	**MATERIALS AND ENERGY.** • **Explain the use of electric current in the local environment.** **TEST 2 (Theory and Practical)**	**Class and group discussion**	**chart**	**INTERGRATED SCIENCE GRADE 9 TEXT BOOK** **(ANY RELAVANT TEXT BOOK)**
9	**MATERIALS AND ENERGY** • **State what pressure is.** • **Identify factors affecting pressure in gases.** • **Explain what energy is.** • **Identify different forms of energy.**	**Class and group discussion**	**Chart showing energy flow**	**INTERGRATED SCIENCE GRADE 9 TEXT BOOK** **(ANY RELAVANT TEXT BOOK)**

10	MATERIALS AND ENERGY. • Describe how different forms of energy can be changed. • Explain the law of energy conservation. • Explain the effects of energy production on the environment. • Explain ways of conserving energy.	Class and group discussion	Chart showing energy flow	INTERGRATED SCIENCE GRADE 9 TEXT BOOK (ANY RELAVANT TEXT BOOK)
11 to 13	Writing of the mock exams.	individual	Question papers	INTERGRATED SCIENCE GRADE 9 TEXT BOOK (ANY RELAVANT TEXT BOOK)

MINISTRY GENERAL EDUCATION

COMMON SCHEME OF WORK FOR INTEGRATED SCIENCE

GRADE NINE (9) TERM THREE 2019 AND BEYOND

WK	WORK TO BE DONE	METHOD	LTAs	RESOURCES/REFERENCE
1	Revision of mock exam MATERIALS AND ENERGY • Identify ways of sending and receiving information over	CLASS AND GROUP DISCUSION	Charts showing devices used in communication by satellite.	INTERGRATED SCIENCE GRADE 9 TEXT BOOK (ANY RELAVANT TEXT BOOKS)

	long distances. • Describe the advantages and disadvantages of the different ways of sending messages			
2	MATERIALS AND ENERGY • Describe the transmission of radio and television signals. • Explain the amplification of sound. • Explain the difference between digital and analogue transmission information. • Explain the use of satellite in long distance Communication. • Describe the transmission of a live broadcast of an event from Africa to Europe using raw block Diagram	CLASS AND GROUP DISCUSION	Charts showing devices used in communication by satellite	INTERGRATED SCIENCE GRADE 9 TEXT BOOK (ANY RELAVANT TEXT BOOKS)
3	Revisions in preparation for final examinations.	CLASS AND GROUP DISCUSION	Relevant charts and materials	INTERGRATED SCIENCE GRADE 9 TEXT BOOK (ANY RELAVANT TEXT BOOKS)
4….	REVISIONS IN PREPARATIONS FOR FINAL EXAMINATION	CLASS AND GROUP DISCUSION	Relevant charts and materials	INTERGRATED SCIENCE GRADE 9 TEXT BOOK (ANY RELAVANT TEXT BOOKS)