SCHEME OF WORK

Name of Teacher____ .....
Year: _____
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Competence	General objective	Month	Week	Main Topic	Sub-topic	Periods	Teaching Activities	Learning Activities	T/L Materials	References	Assessment	Remarks
Demonstrating effects and application of waves	Understand and the laws and principles of waves	JANUARY	3	WAVES	Introduction to waves	2	- Guide students to brainstorm the concept of waves while they are in groups. - Lead students to demonstrate the production of waves using rope, ripple tank and tuning fork.	- to sit in group and discuss the concept of waves.	- Rope, ripple tank, tuning fork.		- Through quiz ask students to explain the concept of waves, wavelength, frequency and velocity of wave.	
							- Using questions and answers technique to assist students to explain the terms wavelength (λ), frequency (f) and velocity (v) of the wave. - Guide students to identify the types of waves.	- to explain the terms wave length, frequency, and velocity of the wave . - to take notes. - students in groups to identify mechanical waves and electromagnetic waves.	- Charts showing graph of displacement against time. - C.R.O. - Helical spring - Drum - Light		- Ask students to explain mechanical waves and electromagnetic waves.	

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-do-	-do-	JANUARY / FEB	3 to 4	WAVES	Behavior of waves	4 2	- using demonstration in class, guide students to explain the behavior of waves, reflection, diffraction and interference. - guide students to brainstorm on the applications of reflection, refraction, diffraction and interference of waves. - guide students to present the applications of behavior of waves. - assist students to sit in groups to demonstrate behavior of waves.	- to explain reflection, refraction and interference. - using think- pair – shave technique, students to mention the application of reflection, refraction, diffraction and interference of waves. - while in group students to demonstrate reflection, refraction, diffraction and interference of waves	● Ripple tank, rectangular prism, and vibrator. ● Radio ● TV ● Mobile phone. ● Ripple tank ● Rectangular prisms. ● Vibrator.		- Group students and give quiz to explain the behavior of waves. - Move around the groups and assess students performance on demonstrating the behavior of waves	

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Competence	General objective	Month	Week	Main Topic	Sub-topic	Periods	Teaching Activities	Learning Activities	T/L Materials	References	Assessment	Remarks
-do-	-do-	JANUARY / FEBRUARY	5	WAVES	Propagation of waves	2	- using question and answer technique to assist students to describe the propagation of mechanical waves. - guide students to demonstrate the propagation of mechanical waves.	- to sit in group to describe the propagation of mechanical waves.	● Slinky spring. ● Tuning fork. ● Ripple tank. ● Rope.		- ask students to note down the criteria of propagation of mechanical waves.	

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			6			2 2 4	- through questions and answer technique explain the propagation of electromagnetic waves. - guide students to demonstrate the propagation of e.m. waves. - Guide students to determine the relationship between frequency, speed and wavelength. - Group students in two and guide them to determine the refractive index of glass. - Guide students to use the formula to find refractive index of different materials.	- to discuss the propagation of e.m. waves. - to describe frequency from equation $f = \frac{v}{\lambda}$ - to state S. I. unit of frequency. - to determine the refractive index of a glass black and submit their results to the teacher.	● Chart showing the e.m. spectrum. ● Chart showing the relationship between frequency, speed and wavelength. ● Glass block. ● Optical pins. ● White sheet. ● Protector. ● Ruler. ● Drawing board.		- ask students to explain propagation of e.m.w. - ask students to state the S.I. unit of frequency. - assess students while they are doing practical.	

Competence	**General objective**	**Month**	**Week**	**Main Topic**	**Sub-topic**	**Periods**	**Teaching Activities**	**Learning Activities**	**T/L Materials**	**References**	**Assessment**	**Remarks**

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-do-	-do-	F E B R U A R Y	6	WAVES	Sound waves	2	- Guide students to identify sources of sound waves. - Using questions and answer technique guide students to explain the concept of audibility range.	- Students to produce sound waves by using different sources of sound. - Students to explain the concept of audibility range.	● Drum ● Guitar ● Whistle ● Turning ● Model of ear. ● Table with audibility range.		- Ask students to explain different sources of sound waves. - Ask students to explain the concept of audibility range.	
			7			2	- Guide students to describe the perception of hearing. - Guide students to demonstrate the production of an echo and explain the concept of reverberation of sound.	- Students to describe the perception of hearing. - To explain the concept of echo and reverberation of sound.	● Model of the human ear. ● Tall wall ● Hall/studio. ● Sound absorbing materials (cloth, spongy material)		- Ask students to explain the concept of echo and reverberation of sound.	
			8		Speed of sound in air.	2	- Using drum and stop watch, guide students to measure the speed of sound in air.	- Students to perform an experiment to measure the velocity of sound in air.	● Stop watch ● Drum ● Tape measure		- Assess students' participation on measuring velocity of sound in air.	
					Musical sound	2	- Using different musical instruments, guide students to explain the concept of musical sound. - Lead students to identify factors affecting loudness, pitch and quality of musical sound.	- Students to give the meaning of music and noise. - Students to identify factors affecting loudness, pitch and quality of musical sound.	● Guitar ● Drum ● Sonometer ● Turning forks ● Violin ● Flute ● Microphone ● C.R.O.		- Give the class work asking students to explain factors affecting loudness, pitch and quality of musical sound.	

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Competence	General objective	Month	Week	Main Topic	Sub-topic	Periods	Teaching Activities	Learning Activities	T/L Materials	References	Assessment	Remarks
-do-	-do-	FEBRUARY/ MARCH	9	Musical sound	Musical instrument. Standing waves		- Organize the study strip to visit a musical band or studio to identify different types of musical instruments. - Lead students to explain the terms of standing (stationery) waves	- By listening students to distinguish different musical instruments by the sound they produce. - Students to explain the terms nodes, antinodes, crest and trough as applied in stationery waves.	● Pipes, string, membrane, and electronic instruments. ● Helical spring. ● Vibrator ● Marker pen ● White sheet ● Motor and battery ● Rubber band		- Ask students if they can identify the different musical instrument. - Give quiz on terms used in stationery waves	

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					String instruments	2	- Guide students to perform an experiment to determine the factors which affect the frequency of a note by stretched string.	- Students to carry out an experiment to determine factors which affect the frequency of a note produced by a stretched string. - Students to determine the frequency of a musical note.	● String ● Sonometer ● Guitar ● Turning fork		- Assess students' performance and participation on finding the frequency of a stretched string.	

Competence	General objective	Month	Week	Main Topic	Sub-topic	Periods	Teaching Activities	Learning Activities	T/L Materials	References	Assessment	R
-do-	-do-	FEBRUARY MA	9	WAVES Musical sound	Pipe instruments Electromagnetic spectrum	2 2	- Lead students to distinguish between fundamental note and overtones. - Lead students to explain the concept of resonances as applied to sound. - With the guidance of an expert, support student to construct a simple musical instrument. - Guide students to explain the concept of the electromagnetic spectrum. - Guide students to draw and label the electromagnetic spectrum.	- Students to distinguish between fundamental note and overtones. - Students to explain the concept of resonance as applied to sound. - Students to initiate the construction of simple musical instruments. - Students to explain the concept of electromagnetic spectrum.	● Resonance tube/burette. ● Turning fork. ● String ● Nails ● Membrane ● Metal can ● Piece of wood. ● Glass prism ● Chart of rain bow.		- Through questions and answers assess students on distinguish between fundamental note and overtones - Assess students work i.e. their musical instruments they made. - Ask students to identify the bands of	

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		R C H	1 10			2	- Guide students to detect infrared radiation, visible and u-v rays	- Students to identify bands of the lectromagnetic spectrum. - Students in groups to detect infrared rays, visible and U-V rays.	● Thermometer ● Iron ● Heater ● Sun rays.		electromagnetic spectrum. - Asses and record the participation of students on detecting those rays	

11 – 12 MIDTERM EXAM / MIDTERM BREAK

Competence	General objective	Month	Week	Main Topic	Sub-topic	Periods	Teaching Activities	Learning Activities	T/L Materials	References	Assessment

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do-	-do-	MARCH	13	WAVES	Application of e.m.w in daily life	2	- Guide students to identify the application of microwaves, radio waves, and infrared, γ-rays and x-rays. - Explain the importance of electromagnetic waves in Agriculture and climate.	- Through think-pair-share technique - Students to identify the applications of microwaves, radio-waves, infrared, γ-rays and x-rays. - Students to carryout project work on the importance of electromagnetic waves in agriculture and climate.			- Give test to check if students can identify the application of e.m.w in daily life.
Demonstrating effects and application of electromagnetic induction	Understand laws and principles of electromagnetic induction	MARCH		Electromagnetism	Magnetic field due to a current carrying conductor.	2	- Assist students to explain how electric current produce magnetic field.	- Students in group to perform an experiment to produce magnetic field due to current carrying wire.	● Wire ● Source of electric current ● Compass needle.		- Give a home asking students to write short notes on how electric current produce magnetic field and identify patterns of the field lines.
							- Guide students to carryout experiments to investigate the magnetic. - Fields associated with an electric current passing through a straight wire, loop and solenoid	- Students, in groups, to identify the patterns of the field lines. - Straight conductor, loop and solenoid.	● Cardboard ● Iron fillings ● Wire ● Source of electric current.		

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Competence	General objective	Month	Week	Main Topic	Sub-topic	Periods	Teaching Activities	Learning Activities	T/L Materials	References	Assessment	Re
		MARCH	14	ELECTROMAGNETISMS	Right hand grip rule and cork screw rule.	2	- Guide students to state right hand rule and the cork screw rule. - With students determine the direction of magnetic field due to current flowing through straight wire, loop and solenoid.	- To state the right hand rule and cork screw rule. - Students to identify the direction of the magnetic field due to current carrying conductor.	● Compass needle ● Iron fillings.		- Ask students to state right hand rule and cork screw rule. - Assess students involvement on determining the direction of magnetic field produced.	
					Magnetic field due to a current carrying conductor	2	- Teacher and students to determine the direction of the force acting on a current carrying conductor placed at right-angle to a magnetic field. - Guide students to state Fleming's left hand rule. - Guide students to determine the attraction and repulsion of	- students to determine the direction of the force acting on a current carrying conductor. - students to state Fleming's left hand rule. - to perform experiment to show the directions of repulsive and attractive force.	● Wire ● U-shaped magnet ● Wire ● Meter rule ● Source of electricity		- Ask students to state Fleming's left hand rule. - Assess students' performance on doing experiment.	

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							current flowing through parallel wire.					
Competence	**General objective**	**Month**	**Week**	**Main Topic**	**Sub-topic**	**Periods**	**Teaching Activities**	**Learning Activities**	**T/L Materials**	**References**	**Assessment**	
-do-	-do-	APRIL	15	ELECTROMAGNETISM	Electromagnetic induction.	2 2	- Guide students to demonstrate the production of induced current using a coil and a magnet. - Guide students to explain the concept of electromagnetic induction. - Guide students to state and explain Faraday's and Lenz's laws of electromagnetic induction. - Group students to perform the experiment on electromagnetic induction.	- Students, in group, to demonstrate the production of induced current using coil and magnet. - Students to explain the concept of electromagnetic induction. - Students to explain Faraday's and Lenz's laws of electromagnetic induction. - Students to apply Faraday's law and Lenz's law of electromagnetic induction to demonstrate the factors affecting magnitude of induced electromagnetic force and direction of induced current	• Magnet • Coil • Galvanometer -do- -do-		- Assess students in group while they are demonstrating. - Ask students to state the laws of electromagnetic induction. - Ask students to note down the factors affecting electromagnetic induction.	

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Competence	General objective	Month	Week	Main Topic	Sub-topic	Periods	Teaching Activities	Learning Activities	T/L Materials	References	Assessment
-do-	-do-	A P R I L	15	-do-	Self and mutual induction	2	- Guide students to explain the concept of self induction and mutual induction - Using diagram describe the structure of the induction coil and how it works	- Students to explain the concept of self and mutual induction. - Students to describe the mode of action of an induction coil.	● Source of electricity ● Iron ring ● Coil ● Galvanometer ● Induction coil ● Chart showing induction coil		- Give a group work and ask students to write short notes on mode of action of induction coil.
					a.c. and d.c generator	2	- Explain to the students the flow of a.c and d.c from a coil rotating in a magnetic field. - The teacher to explain the mode of action of a.c and d.c generators and how to convert a.c generator to d.c.	- To explain the flow of a.c and d.c from a coil rotating in a magnetic field. - Students to discuss the applications of a.c generator and the advantages of a.c generator over d.c generator.	● Chart of a.c and d.c generator		- In group work ask students to write the notes on the mode of action of a.c and d.c generator

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			16		transformers	4	- Describe the structure and mode of action of a transformer. - Using enquiry deductive technique guide students to develop the relation Es/Ep = Ns/Np - Guide students to apply the above formula.	- To explain the mode of action of a transformer. - Students to discuss the applications of a transformer.	● Wire ● Primary and Secondary coil. ● Voltmeter. ● Rectangular soft iron ring.		- Ask students to construct simple step-up and step down transformer.

Competence	General objective	Month	Week	Main Topic	Sub-topic	Periods	Teaching Activities	Learning Activities	T/L Materials	References	Assessment	Remarks
Recognizing the importance and hazards of radioactive emissions.	Realize the importance and hazards of radioactive emission.	APRIL	17	RADIOACTIVTY	The nucleus of an atom	4	- Guide students to discuss the structure of the atoms while they sit in groups. - Assist students to give the meaning of atomic number, mass number and isotopes of elements. - Assist students to mention the existence of forces holding the nucleons.	- to sit in group and discuss the structure of the atom. - Using think-pair-share technique. - Students to discuss the meaning of atomic number, mass number and isotopes of elements. - Students in groups to mention the forces holding the nucleus.	● Chart of atom ● Model of atom. ● Model showing atomic no., mass no. of elements. ● Charts showing electron and proton in an atom.		- Ask each group to describe the structure of the nucleus of an atom. - Give class work testing students on atomic no., mass no., and isotopes of element and forces holding nucleus.	

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		APRIL	18		Natural radioactivity	2	- The teacher to explain the concept of radioactivity. - The teacher to highlight the properties of alpha (α) and Beta (β) and gamma (γ) radiations.	- Students to explain the concept of radioactivity. - While in groups, students to describe the properties of radiations emitted by radioactive substances.	Periodic table.		- Ask students to write few sentences to explain the concept of radioactivity. - Give a quiz on properties of radiations emitted by radioactive substances.	

Competence	**General objective**	**Month**	**Week**	**Main Topic**	**Sub-topic**	**Periods**	**Teaching Activities**	**Learning Activities**	**T/L Materials**	**References**	**Assessment**	**Remarks**
-do-	-do-	MAY	18 /	-do-	-do-	4	- The teacher to highlight the nuclear changes due to the emission of α, β and γ radiations. - Guide students on the detection of α and β rays using G-M counters, spark chamber or Wilson Cloud Chamber. - Guide students to detect γ-rays using photographic plate.	- Students to discuss in groups the nuclear change due to emission of α, β and γ radiations. - Students to follow the explanation and take note.	• Periodic emission. • Chart showing emission of α, β and γ radiations. • Chart showing the detectors.		- Ask students to explain the nuclear changes due to emission ofα, β and γ radiations. - Give students home work to write short notes on one of the detectors discussed.	

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			19		Half life of radioactive substance	2	- Guide students to describe the meaning of half-life as applied to a radioactive substance highlight of background radiations. - Teacher to demonstrate on how to determine half-life using various methods. - Guide students to identify the applications of radio isotopes.	- Students to demonstrate the half-life using dice. - While in groups, students to determine half-life of radioactive elements. - Students to identify the applications of Radioisotopes in agriculture, medicine and industry.	● Graph showing radioactivity. ● Dice ● Graph paper ● Graph of count-rate against time ● Graph paper ● Pencil ● Charts		- Students to do homework on determining the half-life of radioactive substances. - Students to be asked to write the applications of radio isotopes.	

Competence	General objective	Month	Week	Main Topic	Sub-topic	Periods	Teaching Activities	Learning Activities	T/L Materials	References	Assessment	Remarks

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-do-	-do-	M A Y	20	RADIOACTIVITY	Artificial Radioactivity	4	- Guide students to distinguish between natural and artificial radioactive isotopes. - The teacher to describe the methods of producing artificial radioactive isotopes. - Guide students to mention the applications of artificial radioactivity.	- Students to distinguish between natural and artificial radioactivity. - Students in groups to discuss methods of producing artificial radioactive isotopes. - Students to use library search technique to write down uses of artificial radioactivity.	● Periodic table ● Chart of bomb adding elements.		- Ask students to distinguish between natural and artificial radioactivity. - Arrange students in group to write method of producing and applications of artificial radioactivity.
(21 – 22) 2ND QUARTER											
		M A Y	23		Radiation Hazards and safety	2	- Teacher to explain the effects of nuclear radiations on human body. - The teacher to highlight about protection from the nuclear radiations.	- Students in group to explain the effect of nuclear radiation on human body. - Students to demonstrate using role play on how to protect themselves from nuclear radiations.	● Chart showing the hazards of radiations ● Pictures showing people working with radioactive materials.		- Ask students to explain effects of nuclear reactions of human body.

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Competence	General objective	Month	Week	Main Topic	Sub-topic	Periods	Teaching Activities	Learning Activities	T/L Materials	References	Assessment	Remarks
-do- Recognizing the importance and hazards of x-rays.	-do- Realize the importance and hazard of x-ray	MAY JUNE	23	RADIOACTIVITY	Nuclear fission and fusion	2	- The teacher to assist the students to explain the concept of nuclear fission and fusion. - The teacher to explain the applications of nuclear fission and fusion.	- Students to explain the nuclear fission and fusion. - While in groups, students to mention the applications of nuclear fission and fusion.	● Chart of nuclear power station.		- Give a quiz on nuclear fission and fusion. - Each group to give their report and teacher to assess their presentation.	

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			24	THERMIONIC EMISSION	Cathode rays.	4	- The teacher to explain the production of cathode rays. - The teacher to facilitate students to state the properties of cathode rays. - The teacher to assist students to state the applications of cathode ray tube in daily life.	- Students to explain the production of cathode rays. - Students to state properties of cathode rays. - Students to state the applications of cathode ray tube.	● Cathode ray tube. ● Chart showing cathode ray tube. ● TV ● Computer monitor. ● Charts of maltose cross and paddle wheel.		- Assess students on explaining the production of cathode rays. - Ask students to state the properties of cathode rays.	

Competence	**General objective**	**Month**	**Week**	**Main Topic**	**Sub-topic**	**Periods**	**Teaching Activities**	**Learning Activities**	**T/L Materials**	**References**	**Assessment**	**Remarks**

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Recognizing the importance and hazards of X-rays.	Realize the importance and hazard of X-ray	J U N E	25	THERMIONIC EMISSION	X-rays	2	- Guide students to describe the structure and mode of action of the X-ray tube. - Through question and answer technique, the teacher to guide students to distinguish between X-rays and their production. - Guide students to review the position of X-rays in electromagnetic spectrum. - The teacher to arrange a study visit to the X-rays unit centre.	- Students to describe the structure and mode of action of an X-ray tube. - Students to draw and label the diagram of the X-ray tube. - Students in group to distinguish between soft and hard X-rays. - Students to brainstorm on the properties of X-rays. - Students to discuss the applications of X-rays in daily life. - Students to write notes on their educational trip.	● Chart showing X-rays tube. ● X-rays unit centre. ● X-ray photographic plate.		- Group students and ask them to note down the structure and mode of action of X-rays tube. - Give a quiz on soft and hard X-rays. - Let students write the applications of X-rays.	

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Competence	General objective	Month	Week	Main Topic	Sub-topic	Periods	Teaching Activities	Learning Activities	T/L Materials	References	Assessment	Remarks
Students to be able to design and implementing the simple electronic circuits	Students to understand basic building unit for electronic circuit .	JUNE	25	ELECTRONICS	Semiconductors	2	- The teacher to guide students to explain the concept of energy bands in solids. - Guide students to distinguish between conductors, semiconductors and insulators.	- Students to draw the energy bands in solids. - Students to distinguish between conductors, semiconductors and insulators.	● Chart of energy bands in solids		- Test students on distinguish conductors, semiconductors and insulators using energy bands.	
		JUNE	26			4	- Guide students on the effect of temperature on conductivity of conductors, semiconductors and insulators. - Guide students to identify types of semiconductors. - Guide students to describe the mechanisms of doping in intrinsic semiconductors.	- Students to explain the effect of temperature on conductivity of solid. - Students to identify types of semiconductors. - Students to describe the mechanism of doping.			- Test students to explain the effect of temperature on conductivity of solids. - Assess students to identify types of semiconductors.	

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Competence	General objective	Month	Week	Main Topic	Sub-topic	Periods	Teaching Activities	Learning Activities	T/L Materials	References	Assessment
-do-	-do-	JUNE	27	ELECTRONICS	Diodes	2	- The teacher to lead students to describe the constructions the construction of a P-N junction. - The teacher to display different types of diodes.	- Students to explain the mode of action of a P-N junction. - Students to identify types of diodes.	● Diodes ● Chart showing diodes. ● P-N junction diode. ● LED		- Ask students to explain mode of action of P-N junction. - Test the students on types of diodes.
		JUNE/	28		Rectification. Transistor	2 2	- Guide students to discuss a circuit which shows half and full-wave rectification. - The teacher to display transistors and show a diagram of a transistor. - The teacher to display transistors. - Through question and answer technique the teacher to lead students to outline the application of transistors.	- Students to construct circuits which show half-wave and full wave rectifications. - Students to describe the construction of a transistor. - Students to describe the structure of a transistor. - Students to identify types of transistors. - Students to outline the applications of transistors	● DC sources ● Diodes. ● Capacitor ● Resistors ● Connecting wires		- Ask students to construct half wave and full wave rectifier. - Let students to describe the construction of PNP junction and mode of action of PNP transistor. - Assess the students work on outlining the

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-do-	-do-	JULY							• Chart showing a transistors. • Transistors • PNP and NPN transistors. • Radio • TV • Voltage amplifier.		applications of transistors.	

Competence	General objective	Month	Week	Main Topic	Sub-topic	Periods	Teaching Activities	Learning Activities	T/L Materials	References	Assessment
-do-	-do-	JUNE / JULY		ELECTRONICS	Single stage amplifier	4	- The teacher to explain the analogue signal. - Assist students to explain the concept of digital signals. - Guide students to design single stage amplifier.	- Students to explain the concept of analogue signal. - Students to explain the concept of digital signals. - Students in groups to design single state amplifier.	• Chart showing analogy signal. • Mobile phone (analogy) • Chart showing digital signal. • Mobile phone (digital) • Watch • Transistor • Resistors • Oscilloscope		- Assess students on explaining analogue and digital signal. - Give work students to design a single stage amplifier.

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Students to be able to describe the solar system and other celestial bodies	Promote knowledge on the solar system and relationship with other celestial bodies	JULY	29	ELEMENTARY ASTRONOMY	Introduction to astronomy	2	- Guide students to explain the concept of astronomy. - Arrange students in groups and guide students to explain the importance of astronomy.	- Students, using think-pair-share technique to explain the concept of astronomy. - Students in groups to discuss on importance of astronomy in daily life.	● Model of universe. ● Chart of universe. ● Clear sky ● Chart of heavenly bodies.		

Competence	**General objective**	**Month**	**Week**	**Main Topic**	**Sub-topic**	**Periods**	**Teaching Activities**	**Learning Activities**	**T/L Materials**	**References**	**Assessment**
		JULY		-do-	Solar system	2	- Guide students to distinguish between star and planet. - Guide students to explain the concept of force of gravitation which maintains bodies in their orbits.	- Students in group to give the difference between star and planet. - Students in groups to explain the concept of force of gravitation which maintain bodies in their orbits.	● Venus ● Jupiter ● Binoculars ● Chart of earth ● Earth and moon		- Ask students to distinguish star from planet. - Ask students to explain the concept of gravitation.

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-do-	-do-		30	ELEMENTARY ASTRONOMY	Constellations	2	- Guide students to explain the concept of constellation. - Guide students to identify kinds of constellations. - Guide students to discuss the uses of constellations in navigation and seasons prediction.	- Students to explain the concept of constellations. - Students to identify and name common constellations. - Students to discuss with teachers the uses of constellations.	● Chart of different constellations. ● Chart showing seasons.		- Ask students to explain the concept of constellation. - Test students on the kind and uses of constellations.
				-do-	The earth and the moon	2	- The teacher to guide students to describe the surface features and temperature of the moon. - Teacher to guide students to explain the causes of ocean tides. Students can visit the coast of sea to observe the effects of water tides.	- Students to describe the surface features and temperature of the moon. - Students to write down the observations they made on effects of water tides	● Chart of the moon and of the earth. ● Chart of ocean tides		- Give a group work for students to describe the surface features and temperature of the moon and give the effects of water tides.

Competence	**General objective**	**Month**	**Week**	**Main Topic**	**Sub-topic**	**Periods**	**Teaching Activities**	**Learning Activities**	**T/L Materials**	**References**	**Assessment**

SCHEME OF WORK

Name of Teacher____.....
Year: _____
Class/Stream: _____

Name of School: _____
Term: .....1 & 2.....
Subject: **PHYSICS**

Describing the occurrence of environmental disaster	Develop knowledge on the occurrence of environmental disaster	JULY	31	GEOPHYSICS	Structure and composition of the Earth	2	- The teacher to guide students to describe the structure of the earth. - The teacher to guide students to describe the composition of the layers of the earth. - Guide the students to explain the importance of the layers of the earth.	- Students to describe the structure of the earth. - Students in groups to describe the composition of the layers of the earth. - Students in groups to explain the importance of the layers of the earth.	● Chart of the structure of the earth. ● Minerals.		- Give a quiz which covers all these areas.
32 – 37 LONG VACATION											
		SEPTEMBER	38		The Green house effect and global warming	2	- Guide students to explain the green house effect. - The teachers to lead students to identify sources of green house.	- Students in groups to explain the green house effect. - Students to identify sources of green house.	● Chart of green house. ● Chart of ozone layer. ● Green house gases		- Ask students to tell about green house effect and identify sources of green house
						2	- Guide students to explain the occurrence of global warming. - Guide students to state the consequences of global warming.	- Students in groups to explain the occurrence of global warming. - Students to state the consequence of global warming.	● Chart of effect of global warming. ● Pictures of effects of global warming ● Melting ice caps.		- Ask students to explain the occurrence of globa warming and state the consequences global warming.

SCHEME OF WORK

Name of Teacher____.....
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Competence	General objective	Month	Week	Main Topic	Sub-topic	Periods	Teaching Activities	Learning Activities	T/L Materials	References	Assessment	R
-do-	-do-	SEPTEMBER	39	-do-	Earthquakes and volcanoes	2	- The teacher to guide students to explain the origin of volcanoes. - Guide students to describe the effects of volcanoes. - Group students and guide them to explain the concept of the earthquake.	- Students to explain the origin of volcanoes. - Students to describe the effects of volcanoes. - Students in groups to explain the origin of earthquake.	● Charts of volcanoes. ● Pictures showing effects of volcanoes. ● Chart of earthquake. ● Picture of earthquake.		- Give a quiz on origin and effects of volcanoes. - Ask students to explain the origin of earthquake.	
						2	- The teacher to describe the principle of measurement of earthquakes. - Assist students to identify the hazards, precautions against earthquake hazards.	- Students to discuss in groups how to record the measurement of earthquake. - Students in groups to identify the precautions against earthquake and hazards.	● Seismometer chart. ● Seismometer. ● Animal signs. ● Meteorology report.		- Ask students to describe the principle of measuring earthquake. - Test students on identifications against earthquake hazards.	

SCHEME OF WORK

Name of Teacher ..... Name of School: _____

Year: _____ Term: ……1 & 2……

Class/Stream: _____ Subject: **PHYSICS**

		S E P T E M B E R	40		Structure and composition of the atmosphere	2	- Lead students to describe the vertical structure of the atmosphere. - Guide students to describe the compositions of the atmosphere. - Guide students to describe the importance of various layers of the atmosphere.	- Students to describe the vertical structure of the atmosphere. - Students using think-pair-technique to describe the composition of atmosphere. - Students to explain t he importance of various layers of the atmosphere.	● Chart of structure of atmosphere showing the layer. ● Communication system.		- Ask students to describe the vertical structure of the atmosphere. - Ask students to describe the composition and the importance of various layers of the atmosphere.
41 – 43					REVISION						
44 – 47					**NECTA EXAMINATIONS**						