

FAYOL EDUCATIONAL SERVICES

ANNUAL & TERMLY SCHEME OF LEARNING 2024/2025 ACADEMIC YEAR – TERM I

SCIENCE B7-B9

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B7 SCIENCE - ANNUAL SCHEME OF LEARNING

WEEKS	FIRST TERM	SECOND TERM	THIRD TERM
I	Materials- states of matter	Energy – forms of energy	Electricity and electronics – forms of electricity generation
2	Materials- states of matter	Energy – forms of energy	Electricity and electronics –components of electronic circuit
3	Materials- states of matter	forms of heat transfer in the states of matter	Electricity and electronics –components of electronic circuit
4	Materials - the periodic table	how light travels	Human body – digestive system
5	Living Cells - plant cells	Life cycle of organisms – life cycle of housefly	Human body – digestive system
6	Living Cells – animal cells	Life cycle of organisms – effects of housefly activities on humans	Force and Motion – force, newton's law of motion, magnetization, simple machines
7	Earth science – water cycle	Solar system – inner planets of the solar system	Force and Motion – force, newton's law of motion, magnetization, simple machines
8	Earth science – water cycle	Solar system – inner planets of the solar system	Force and Motion -simple machines
9	Crop production – plant nutrients	Animal production – domestic animals and their uses	Farming systems – types of farming systems
10	Crop production – plant nutrients	Waste management – waste management practices	Farming systems — types of farming systems



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11	Ecosystem – components of the ecosystem	Human health – nutrition	Climate changes – sustainable energy choices, greenhouse effects
12	Science and industry – careers in science	Human health – nature of viral diseases (COVID-19) /Ebola/H1N1)	UNDERSTANDING THE ENVIRONMENT - plants and animals found in different landforms (plateau plain, mountain valley and others)

B7 SCIENCE - FIRST TERM SCHEME OF LEARNING

WEEKS	STRAND	SUB STRANDS/CS	INDICATORS	RESOURCES	
I 13/9/24		REVISION			
2 20/9/24	Diversity Of Matter	Materials— states of matter B7.1.1.1 Recognise materials as important resources for providing human needs	B7.1.1.1-2 Classify materials into liquids, solids and gases Discuss the importance of liquids in the life of humans	Picture chart of the states of matte, The	
3 27/9/24	Diversity Of Matter	Materials— states of matter B7.1.1.1 Recognise materials as important resources for providing human needs	B7.1.1.3 Discuss the importance of specific solids to life	periodic table	
4 4/10/24	Diversity Of Matter	Materials - the periodic table B7.1.1.2 Understand the periodic table as different elements made up of metals and non- metals and noble gases arranged in an order	B7.1.1.2.1 Demonstrate the knowledge of the orderly arrangement of metals, non-metals and noble gases in the periodic table	Pictures and Charts	
5 11/10/24	Diversity Of Matter	Living Cells - animal cells B7.1.2.1 Demonstrate understanding of the structure of organisms and functions of cells in living systems	B7.1.2.1.1 Describe the structure and function of living cells of an animal	Pictures and Charts	



6 18/10/24	Diversity Of Matter	Living Cells – plant cells	B7.1.2.1.2 State the functions of each organelle in a plant cell.	
7 25/10/24	Cycles	Earth science – water cycle B7.2.1.1 Recognise that the water cycle is an example of repeated patterns of change in nature and understand how it occurs	B7.2.1.1.1 Explain how the water cycle occurs as a repeated pattern in nature	Pictures and Charts
8 1/11/24	Cycles	Earth science – water cycle B7.2.1.1 Recognise that the water cycle is an example of repeated patterns of change in nature and understand how it occurs	B7.2.1.1.2 Describe the importance of the water cycle in nature	Pictures and Charts
9 8/11/24	Cycles	Crop production – plant nutrients B7.2.3.1 Demonstrate understanding of the different plant nutrients (organic, and inorganic fertilizers) and their application in school farming (school gardening)	B7.2.3.1.1 Observe and list all plant nutrient sources available in a community and categorise them into organic and inorganic nutrient sources.	Pictures and Charts
10 15/11/24	Cycles	Crop production – plant nutrients B7.2.3.1 Demonstrate understanding of the different plant nutrients (organic, and inorganic fertilizers) and their application in school farming (school gardening)	B7.2.3.1.2 B7.2.3.1.2 Describe the physical characteristics of different plant nutrients (organic and inorganic) and how each is applied to plants in the field	
11 22/11/24	Systems	Ecosystem – components of the ecosystem B7.3.3.1. I Analyse the components of ecosystems and identify the interactions within.	B7.3.3.1.1	Pictures and Charts



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12 29/11/24	Humans & The Environment	Science and industry – careers in science B7.5.3.1 Realise how careers in science can improve human life, and research about Ghanaian and internationally recognised scientists and science educators and model after them	B.7. 5.3.1.1 Discover and explain how careers in science can improve human conditions and relate these careers to the work of great national and international scientists and science educators	
13 5/12/24	REVISION			
14 13/12/24	END OF TERM ASSESSMENT			
15 20/12/24	VACATION AND SBA ACTIVITIES			

B8 SCIENCE – ANNUAL SCHEME OF LEARNING

WEEKS	FIRST TERM	SECOND TERM	THIRD TERM
I	Materials	Earth Science	Crop Production
2	Materials	Earth Science	Crop Production
3	Living Cells	Life Cycles Of Organisms	Energy
4	Living Cells	Life Cycles Of Organisms	Energy
5	The Human Body Systems	Animal Production	Energy
6	The Human Body Systems	The Solar System	Electricity & Electronics
7	Farming Systems	The Ecosystem	Electricity & Electronics
8	Farming Systems	Force & Motion	Waste Management Systems
9	Conversion & Conservation Of Energy	Force & Motion	Human Health
10	Agricultural Tools	Force & Motion	Human Health
11	Agricultural Tools	Climate Change & Green Economy	Science & Industry
12	Agricultural Tools	Understanding The Environment	Science & Industry



B8 SCIENCE – FIRST TERM SCHEME OF LEARNING

WEEKS	STRAND	SUB STRANDS/CS	INDICATORS	RESOURCES		
I 13/9/24	REVISION	REVISION				
2 20/9/24	Diversity Of Matter	Materials B8.1.1.1 Demonstrate knowledge of types of mixtures, and understanding of the processes of scientific ways of separating the components of mixtures	B8.1.1.1-2 Identify types of mixtures by name and characteristics Design and perform processes for separating kinds of mixtures.	Picture chart		
3 27/9/24	Diversity Of Matter	Materials B8.1.1.2 Demonstrate understanding of atoms and the atomic structure of elements in the periodic table	B8.1.1.2.1-2 Describe atoms as composed of sub-atomic particles Explain the arrangement of elements in terms of the number of protons in the nuclei of atoms of each element.	Picture chart		
4 4/10/24	Diversity Of Matter	Living Cells B8.1.2.1 Demonstrate an understanding of the types of cells and their structure in relation to different organisms	B8.1.2.1.1 Examine and describe the structure of prokaryotic and eukaryotic cells.			



5 	Diversity Of Matter	Living Cells B8.1.2.1 Demonstrate an understanding of the types of cells and their structure in relation to different organisms	B8.1.2.1.2 Classify organisms (plants or animals) as prokaryotic or eukaryotic based on the type of cells they are made of	
6 18/10/24	Systems	The Human Body Systems B8. 3.1.1 Demonstrate knowledge of parts of mammalian tooth and the functions of the different types of teeth in relation to feeding in man	B8.3.1.1.1-2 Demonstrate knowledge of parts of mammalian tooth and the functions of the different types of teeth in relation to feeding in man Discuss the functions of the different types of teeth such as incisors, canines, premolars, and molars.	Picture chart
7 25/10/24	Systems	The Human Body Systems B8. 3.1.1 Demonstrate knowledge of parts of mammalian tooth and the functions of the different types of teeth in relation to feeding in man B8. 3.1.1 Demonstrate knowledge of parts of mammalian tooth and the functions of the different types of teeth in relation to feeding in man	B8.3.1.1.3 Explain the causes and prevention of tooth and gum decay.	Picture chart
8 1/11/24	Systems	Farming Systems B8.3.4.1 Demonstrate understanding of the different crop, animal and land combinations under various farming systems	B8.3.4.1.1 Identify and describe the types of crops, animals and land combinations for the different farming systems	
9 8/11/24	Systems	Farming Systems	B8.3.4.1.2 B8.3.4.1.2 Discuss the usefulness of the different crops and animals involved in the different farming systems.	Picture chart



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10		B8.3.4.1 Demonstrate understanding of the different crop, animal and land combinations under various farming systems Conversion & Conservation Of Energy		
15/11/24	Forces & Energy	B8.4.3.1 Evaluate the impact of conversion of energy and energy conservation on the environment	B8.4.3.1.1. Explain the importance of conversion of energy and energy conservation in daily life	
11 22/11/24	Forces & Energy	Agricultural Tools B8.4.5.1 Demonstrate knowledge and skills in the use of basic and simple agricultural tools for basic on-farm activities	B8.4.5.1.1 Show and discuss the use of basic and simple agricultural tools for basic on-farm activities	- Picture chart
12 29/11/24	Forces & Energy	Agricultural Tools B8.4.5.1 Demonstrate knowledge and skills in the use of basic and simple agricultural tools for basic on-farm activities	B8.4.5.1.2 Engage in the use of basic and simple agricultural tools for basic farm activities.	- Ficture Chart
13 5/12/24	REVISION			
14 13/12/24	END OF TERM ASSESSMENT			
15 20/12/24	VACATION AND SBA ACTIVITIES			

B9 SCIENCE – ANNUAL SCHEME OF LEARNING

WEEKS	TERM I	TERM 2	TERM 3
I	Materials	Crop production	Farming systems
2	Materials	Crop production	Farming systems
3	Living Cells	Crop production	Force and motion
4	Living Cells	Crop production	Force and motion
5	Earth science	Animal Production	Agriculture tools
6	Life cycles	Animal Production	Agriculture tools
7	Human Body systems	Animal Production	Science and industry
8	Energy	Solar system	Science and industry
9	Energy	Ecosystem	Climate



10	Energy	Electricity and electronics	Climate
11	Energy	Conversion	Understanding the environment
12	Waste management	Human health	Understanding the environment

B9 SCIENCE – FIRST TERM SCHEME OF LEARNING

WEEKS	STRAND	SUB STRAND	INDICATORS	RESOURCES		
I 13/9/24	REVISION	REVISION				
2 20/9/24	Diversity of Matter	Materials B9.1.1.1 Show an understanding of formation of binary chemical compounds and their uses (Acids, Bases and Salts)	B9.1.1.1-2 Identify by name binary chemical compounds and discuss their uses. Discuss the formation of binary chemical compounds.	Charts & Pictures		
3 27/9/24	Diversity of Matter	Materials B9.1.1.2 Demonstrate knowledge of atomic bonding in the formation of chemical compounds	B9.1.1.3 Describe the characteristics of common acids, bases and salts. B9.1.1.2.1 Recognise that chemical bond results from the attraction between atoms in a compound	Charts & Pictures		
4 4/10/24	Diversity of Matter	Living Cells B9.1.2.1 Demonstrate knowledge of specialist cells of dicotyledonous plants and humans, their formation and functions for the existence of the plants and humans	B9.1.2.1.1-2 Discuss the concepts of specialised cells and how they are formed in dicotyledonous plants and humans Examine the functions of specialised cells in dicotyledonous plants such as epidermal,	Charts & Pictures		



			guard cells, cambium, xylem in relation to the existence of the plants	
5 11/10/24	Diversity of Matter	Living Cells B9.1.2.1 Demonstrate knowledge of specialist cells of dicotyledonous plants and humans, their formation and functions for the existence of the plants and humans	B9.1.2.1.3 Examine the functions of specialised animal cells such as (nerve, blood cells, muscle cells and sperm cells) in relation to the existence of humans	Charts & Pictures
6 18/10/24	Cycles	Earth science B9.2.1.1 Demonstrate an understanding of the Nitrogen cycle as a repeated pattern of change in nature, and how it relates to the environment	B9.2.1.1.1-2 Explain the process of the nitrogen cycle as a repeated pattern in nature Describe the importance of the nitrogen cycle to the environment	Charts & Pictures
7 25/10/24	Cycles	Life cycles of organisms B9.2.2.1 Demonstrate an understanding of the life cycle of grasshopper and assess how their activities affect humans	B9.2.2.1.1-2 Describe the life cycle of the grasshopper as a form of incomplete metamorphosis Examine how the activities of the grasshopper affect humans	Charts & Pictures
8 1/11/24	Systems	Human Body systems B9.3.1.1 Demonstrate understanding of the blood circulatory system, health problems associated with the system and its relationship with the respiratory system in humans	B9.3.1.1.1 Explain the concept of the circulatory system, state the function of each part of the system and the health challenges associated with it	Charts & Pictures
9 8/11/24	Systems	Human Body systems B9.3.1.1 Demonstrate understanding of the blood circulatory system, health problems associated with the system and its	B9.3.1.1.2 Explain the concept of respiration and show how the respiratory and circulatory systems complement each other. (Note that respiration is a chemical reaction that	Charts & Pictures



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		relationship with the respiratory system in	releases carbon dioxide (CO2), water (H2O)		
		humans	and energy from glucose and oxygen).		
10 15/11/24	Forces & Energy	Energy B9.4.1.1 Show understanding of the concept of conservation of energy and ways of conserving energy	B9.4.1.1.1-2 List the ways to conserve energy. Examples: ironing in bulk, using energy efficient appliances and switching off appliances when not in use. Explain the importance of energy conservation in daily life.	Charts & Pictures	
		G G,	B9.4.1.2.1 Explain how to calculate energy consumed over a period of time		
11 22/11/24	Forces & Energy	Energy B9.4.1.2 Demonstrate understanding in and the capability to do calculations involving energy.	B9.4.1.2.2-4 Describe how images are formed in cameras. Describe the formation of shadows.	Charts & Pictures	
			Demonstrate the formation of an eclipse.		
12 29/11/24	Forces & Energy	Energy B9.4.1.3 Evaluate the application of light energy in life.	B9.4.1.3.1 Demonstrate that light changes path when it travels from one medium to a different medium.	Charts & Pictures	
13 5/12/24	END OF TERM ASSESSMENT				
14 13/12/24	VACATION AND SBA ACTIVITIES				



15 20/12/24

