

BLUE PRINT FOR INTEGRATED SCIENCE LOWER PRIMARY

CLASS	THEME	TOPIC/SUB THEME	COMPETENCE	SECTION A			SECTION B		
QUESTION LEVELS				K	C	A	K	C	A
Primary one and two	The human body and health	The human body	External parts of the body						
			Uses of different external body parts						
			Our senses of the body						
		The human health	Things used to clean the body						
			Personal hygiene						
			Importance of keeping the body clean						
			Common diseases						
			Things that spread common diseases						
			Ways of keeping food safe.						
	Weather changes	Weather	Elements of weather or weather makers						
			Types of weather						
			Managing sunny weather						
			Managing rainy weather						
			Managing windy weather						
			Activities done during different weather conditions						
			Dangers or effects of different weather conditions						

	Measures	Seasons	Types of seasons						
			Activities done during dry season						
			Activities done during wet season						
		Measuring quantities	Things measured in kilograms						
			Things measured in litres						
			Things measured in metres						
	Accidents and safety	Common accidents at home, school and on the way	Common accidents at home						
			Dangerous objects at home						
			Causes of accidents at home						
			Ways of preventing accidents at home						
			Causes of accidents on the way						
			Effects of accidents						
			Road signs						
		First aid	Meaning of a casualty						
			Meaning of first aid						
			Reasons for giving first aid						
			Ways of giving first aid						
			Things found in a first aid box						
			Places where a first aid kit can be found						
	Food and nutrition	Common food at home and in our community	Meaning of food						
			Sources of food and places where we get food						
			Classes of food and balanced diet.						
			Ways of keeping food safe or clean						
			Importance of keeping food safe or clean						

			Uses food in the body (reasons for eating food)						
	Things we make	Things we make home school and home	Materials used to make different things at home and at school						
			Sources of materials used to make things at home and school						
			Things we make from banana fibres						
			Things we make from plastics						
			Things we make from wood						
			Things we make from metals						
			Things we make from clay						
			Uses of things we make at home.						
	Our environment	Our environment	Meaning of environment						
			Components of the environment						
		Living things	Meaning of living things						
			Examples of living things						
			Characteristics of living things						
		Non-living things	Meaning of non-living things						
			Examples of non-living things						
			Characteristics of living things						

		Animals in our environment	Domestic animals (meaning)						
			Examples of domestic animals						
			Uses of domestic animals						
			Different products got from animals						
			Wild animals (meaning)						
			Examples of wild animals						
			Dangers of wild animals						
			Uses of wild animals						
			Animals and their young ones						
			Animals and their homes						
			Animals and their sounds						
			Animals and their movement						
			Reasons why animals move						
			Animals and their weapons						
			Ways of caring for the environment						
		Birds in our environment	Domestic birds (meaning)						
			Examples of domestic birds						
			Wild birds (meaning)						
			Examples of wild birds						
		Common insects	Common insects in our environment						
			Useful and harmful insects						
			Parts of an insect and their uses						
			Characteristics of insects						
			Uses of common insects in the environment						

Primary three		Common plants	Examples of common plants in the environment						
			Parts of a plant						
			Uses of common plants in the environment						
	Our environment in our sub county	Soil	Meaning of soil						
			Components of soil						
			Types of soil						
			Uses of clay soil						
			Uses of sand soil						
			Uses of loam soil						
			Soil profile						
			General uses of soil to people, plants and other animals						
		Changes	Examples of natural changes in the environment						
			Examples of man-made changes in the environment						
			Effects of changes in the environment						
			Ways of managing changes in the environment						

	Environment and Weather in our sub county	Air and the sun Air	Meaning of air						
			Components of air and their percentage compositions in the atmosphere						
			Properties of air and their application in life						
			Importance of air						
			Oxygen as a condition for burning (experiment)						
			Dangers of strong wind						
		The sun	Importance of the sun						
			Why plants need sunlight (experiment)						
			Dangers of the sun						
			Sources of water						
		Managing water	The water cycle						
			Ways of harvesting water						
			Maintenance of water sources						
			Types of clouds						
			Effects of clouds in the environment						
			Measuring rainfall						
			Importance of rain						
			Dangers of too much rain on soil, plants and animals						

	Living things (animals in our sub county)	Living things (animals)	Meaning of living things						
			Types of livings						
			Characteristics of living things						
			Classes of living things						
			Types of animals (domestic and wild animals)						
			Habitats of domestic animals						
		Birds and insects	Domestic and wild birds						
			Characteristics of birds						
			Reasons for keeping domestic birds						
			Habitats for birds						
			Reasons why bats are not regarded as birds (comparison)						
			Examples of useful and harmful insects						
			Uses of insects						
			Dangers of some insects						
			Characteristics of insects						
			Habitats of different insects						
			Insects with wings and wingless insects						
			Comparison of spiders with insects						
		Care for animals, birds and insects	Caring for domestic birds and animals						
			Caring for wild birds and animals						
			Caring for insects						
			Examples of plants in our environment						

	Living things (plants in our sub county)	Plants and their habitats	Characteristics of plants						
			Habitats of different plants (soil, water, wetlands and rocky and dry areas.						
			Planting crops on different types of soil						
		Parts of a flowering plant	Structure of a flowering plant						
			Parts of a flowering plant and their uses						
			Uses of different plants people and other animals						
			Dangers of some plants to people and other animals						
			Experiment to observe the stages of plant growth (seed germination)						
		Crop growing practices	Ways of preparing the land for crop growing						
			Methods of planting crops						
			Caring for crops (weeding, thinning, watering, pruning, spraying, harvesting, drying, storing etc.						
			Crop rotation						
			Garden tools and their uses						
			Ways of caring for garden tools						

	Health in our sub county	Vectors and diseases	Meaning of vectors						
			Examples of common vectors						
			Characteristics of vectors						
			Life cycles of vectors (housefly, mosquitoes and cockroaches)						
		Diseases spread by vectors	Examples of vector borne diseases						
			Ways through which vectors spread diseases (the 4Fs chain, bitig etc.						
			Ways of controlling and preventing vectors						
		HIV and AIDS	Meaning of HIV and AIDS						
			Ways through which HIV spreads						
			Effects of AIDS						
			Ways of controlling or preventing the spread of AIDS						
			PIASCY messages (what they are)						
			Examples of PIASCY messages						
			Importance of PIASCY messages.						
	Energy in our sob county	Sources of energy	Meaning of energy						
			Examples of forms of energy						
			Natural sources of energy						
			Artificial sources of energy						
			Uses of different forms and sources of energy						

		Saving energy	Ways of saving energy in our sub county						
			Reasons for saving energy						
		Dangers of energy	Dangers of different forms and sources of energy						
			Ways of avoiding dangers of energy						

INTEGRATED SCIENCE BLUE PRINT FOR UPPER PRIMARY

CLASS	THEME	TOPIC	COMPETENCES	QUESTION LEVEL					
				SECTION A			SECTION B		
				K	C	A	K	C	A
P.4	1. The world of living things	1. Plant life							
			Identifies common flowering plants						
			Mentions the external parts of flowering plant.						
			Discusses the uses of different parts of a flowering plant to a plant.						
			States the uses of plants to people						
			Draws and labels the parts of a seed						
			Distinguishes a seed from a grain						
			Defines seed germination						
			Investigates the conditions necessary for seed germination						
			Identifies the types of germination						
			Explains seed viability and dormancy						
			Identifies the processes that occur in leaves						
			Defines photosynthesis						
			States the raw materials and conditions necessary for photosynthesis and their roles.						

			States the importance of photosynthesis to plants and environment.						
			Draws and names the parts of a flower						
			Describes the uses of different parts of a flower						
			Describes the word pollination						
			Identifies the agents of pollination						
			Describes the types of pollination						
			Explains the changes that occur in a flower after fertilization.						
			Explains the meaning of transpiration						
			Describes the factors that affect the rate of transpiration						
			States the ways plants reduce the rate of transpiration						
			Explains the importance of transpiration to plants and environment						
			States the dangers of transpiration to plants						
			Defines tropisms						
			Identifies the examples of tropisms and their stimuli						

		2. Growing crops	Identifies common crops grown in the community						
			Groups the common crops into annual and perennial crops						
			Draws and names annual and perennial crops						
			Identifies different garden tools used in crop growing						
			Draws, names and gives the uses of garden tools						
			Identifies different crop growing practices and their advantages						
			Identifies common crop pests and diseases						
			Describes some signs of pest and disease damage in crops						
			Explains ways of controlling crop pests and diseases						
		3. Animal life (keeping rabbits)	Draws and labels the external parts of a rabbit						
			Gives the functions of different parts a rabbit						
			Names different breeds of rabbits						
			States reasons for rearing rabbits						
			Identifies and describes the different types hutches						
			Identifies the common parasites and diseases of rabbits						

P.5			Suggests the ways of controlling and preventing common parasites and diseases of rabbits.						
			Demonstrates skills of keeping rabbits						
		4. Bacteria and fungi	Tells the meaning of bacteria						
			Identifies places where are commonly found and breed from						
			Identifies the different shapes of bacteria						
			Describes the nature of bacteria (useful and harmful bacteria)						
			States the uses of useful bacteria						
			Explains the dangers of bacteria						
			Names the diseases caused by bacteria in plants and animals, how they spread and controlled or prevented						
			Describes fungi						
			Identifies the examples of useful and harmful fungi						
			States the uses and dangers of different fungi in the environment						
			Identifies fungal diseases in plants and animals						
			State the ways of preventing and controlling fungal diseases						
			States the differences between bacteria and fungi						

P.6		5. Classification of animals	Identifies the features or characteristics used to classify animals						
			Names the groups of vertebrates or classifies vertebrates (mammals, birds, fish, amphibians and reptiles)						
			Describes the characteristics of different groups of vertebrates						
			Describes modes of reproduction, living and feeding of different vertebrates						
			Classifies invertebrates (molluscs, arthropods and worms)						
			Describes different characteristics of different groups of invertebrates						
			Mentions the uses and dangers of different invertebrates in the environment.						
			States the ways of caring for animals in the environment						
		6. Classification of plants	Classifies plants into flowering and non-flowering plants						
			Names the examples of flowering and non-flowering plants						
			Uses characteristics to prepare a simple classification of common plants						
			Describes plant propagation						

			Explains the methods of natural methods of vegetative propagation						
			Explains the artificial methods of vegetative propagation						
			Gives the advantages and disadvantages of natural and artificial methods of vegetative propagation						
			Draws and labels the non-flowering plants correctly						
			Defines seed dispersal						
			Identifies the agents of seed dispersal						
			Explains the characteristics of seeds and fruits dispersed by water, animals and wind.						
			States the importance and disadvantages of seed dispersal in the environment						
			States the economic values of plants to people						
P.4	2. The environment	7. Weather changes around us	Explains the term weather						
			Describes the changes in weather throughout the year						
			Identifies the elements of weather						
			States the conditions or types of weather						
			Identifies weather instruments and their uses						
			Explains how to care for different weather instruments						

P.5			Makes accurate measurements of rainfall						
			Makes a simple weather chart						
		8. Components of the environment (soil)	Describes the water cycle						
			Defines soil						
			Describes the methods of soil formation						
			States the importance of soil						
			Carries out experiments to show the components of soil						
			Describes the types of soil						
			Discusses drainage, capillarity and retention of different types of soil						
			Describes soil profile						
			Compares soil layers with the types of soil						
			Defines soil erosion						
			States the causes of soil erosion						
			Identifies the types of soil erosion						
			Names the agents of soil erosion						
			Explains the ways of controlling and preventing soil erosion in different areas						
			Identifies the harmful materials on soil						
			Discusses the effects of the harmful materials on soil						
			States the ways of managing harmful materials on soil to ensure it productivity						

P.6			Identifies the methods of conserving soil						
			Defines soil fertility						
			Gives the ways of improving soil fertility						
			Identifies the types of fertilizers (natural and artificial fertilizers)						
			States the advantages and disadvantages of natural and artificial fertilizers						
		9. Resources in the environment	Explains the meaning of resources						
			Identifies resources from living things (plants and animals)						
			Identifies resources from non-living things (air or wind, water, soil, minerals and rocks and fossil fuels)						
			Defines renewable resources						
			Identifies examples of renewable resources (plants, animals, water, soil, sunshine and air)						
			Discusses the characteristics of renewable resources						
			Explains how renewable resources are replaced naturally						
			Defines non-renewable resources						
			Identifies the examples of non-renewable resources (minerals and rocks)						
			Discusses the characteristics of non-renewables resources						

			Explains the ways of harvesting resources in the environment						
			Participates int the campaign for sustainable use of the available resources						
			Discusses the ways of conserving resources						
			Defines environmental degradation						
			Identifies the natural causes of environmental degradation						
			Explains the human activities that degrade the environment						
			Describes the forms of pollution (water pollution, air pollution and soil pollution)						
			Identifies the causes of different forms of pollution in the environment						
			Discusses the effects of different forms of pollution to the environment						
			Importance of proper waste disposal in the environment						
			Dangers of poor waste disposal in the environment						
			Describes the ways of managing wastes in the environment (5Rs in waste management)						

P.7		10. Energy resources in the environment	Names different energy resources in the environment (animals, plants, air or wind, fossil fuels, mineral fuels, water, sunshine etc.)						
			States the uses of different components of the environment as energy resources						
			Describes biogas production in a biogas digester						
			Identifies renewable and non-renewable energy resources						
			Explains how different renewable energy resources are replaced naturally						
			Describes the characteristics of renewable and non-renewable energy resource						
			Gives the ways of conserving renewable and non-renewable resources in the environment						
		11. Interdependency of things in the environment	Names the components of the environment						
			States how:						
			Plants depend on animals						
			Some plants benefit from other plants						
			Animals benefit from plants						
			Some animals benefit other animals						
			Plants benefit from non-living things (air, wind, water, sun, soil)						
			Animals benefit from non-living things						

P.4	3. Human health		Defines agroforestry and mixed farming						
			Names the breeds of trees						
			States the importance of agroforestry						
			Explains the methods of harvesting trees for different purposes						
			Describes the management of a woodlot project						
		12. Personal hygiene	Defines personal hygiene						
			States the ways of keeping our bodies clean						
			Demonstrates keeping clean						
			Identifies the items used to keep our bodies clean						
			States the importance of keeping our bodies clean						
			Discusses the dangers of poor personal hygiene						
			Identifies the diseases that spread due to poor personal hygiene						
		13. Our food	Identifies the classes of food or food values						
			Names food stuffs that provide different food values or sources of different food values						
			Identifies the sources of food in the environment						
			Explains how food gets contaminated						

			Defines food preservation						
			Gives the importance of or reasons for preserving food						
			Discusses the ways of preserving different food stuffs						
			Practices proper handling of food						
			Defines deficiency diseases or malnutritional diseases						
			Identifies the examples of deficiency diseases						
			States the causes of different deficiency diseases						
			Discusses the ways of controlling and preventing deficiency diseases						
			Describes different methods of preparing local dishes using common foods in the community						
		14. Sanitation	States what sanitation means						
			Discusses the importance of proper sanitation						
			Identify the ways of keeping our environment clean or promoting sanitation						
			Identifies the tools used to promote sanitation						
			Describes the elements of a health home						

			Identifies the dangers of poor sanitation in the environment						
			Explains what germs are						
			Names the places where germs are found						
			Describes how germs spread						
			Explains the ways of preventing the spread of germs						
		15. Communicable intestinal diseases and worm infestation	Identifies diarrheal diseases						
			Describes the causes of diarrheal						
			Discusses how diarrheal diseases spread						
			Explains the ways of controlling the spread of diarrheal diseases						
			States the effects communicable intestinal diseases						
			Demonstrates how to make and administer ORS locally at home						
			Defines worm infestation						
			Identifies the examples of worms						
			Explains how different worms enter the body						
			Describes the signs and symptoms of worm infestation						
			Describes treatment and prevention of worms and intestinal infestations						

		16. Vectors and diseases	Defines vectors						
			Names some vectors						
			States the characteristics of some vectors						
			Describes the life cycle of different vectors						
			Explains how different vectors spread diseases						
			Identifies diseases spread by different vectors						
			Describes the prevention and control measures of vector borne diseases						
		17. Accidents, poisoning and first aid	Explains what an accident is						
			Names common accidents and poisoning at home, school and on the way						
			States the causes of causes of accidents and poisoning						
			States the ways of avoiding / controlling / preventing accidents and poisoning at home, school and on the way						
			Explains the meaning of first aid						
			Describes how to care for the injured person						
			Describes how to take care of a poisoned person						
			Distinguishes a first aid kit from a first aid box						
			Identifies the components of a first aid kit						

P.5			States reasons for giving first aid to a casualty						
		18. Immunization	Defines immunity						
			Identifies the types of immunity						
			Gives the importance of immunity to the body						
			Identifies the childhood immunisable diseases						
			States the causes, signs, symptoms and effects of childhood immunisable diseases						
			States the meaning of vaccines and their storage						
			Identifies the types of vaccines						
			Names the examples of vaccines						
			Discusses the administration of vaccines (methods, age and body site)						
			Names other immunisable diseases						
		19. Food and nutrition	Defines breastfeeding						
			States and advantages of breastfeeding to the babies, mother and the family						
			States the disadvantages of breastfeeding to the baby, mother and the family						
			Defines bottle feeding						
			Mentions the conditions that lead to bottle feeding						

			States the advantages of bottle feeding to the baby, mother and family						
			Describes the disadvantages of bottle feeding to the baby, mother and family						
			Defines vulnerable groups of people						
			Identifies the examples of vulnerable people						
			Describes the classes of food suitable for different vulnerable groups of people						
			Discusses the traditional customs and food taboos						
			Identifies the examples of traditional customs and food taboos						
			Discusses the effects of traditional customs and food taboos.						
			Explains the food consumption patterns in the community (staple food for different communities)						
		20. Primary Health Care	Gives the meaning of PHC						
			Identifies the elements of PHC						
			States the principles of PHC						
			Describes the activities done to promote PHC (community hygiene)						
			Discusses the responsibilities of individuals, families and the community in the promotion of health						

P.6			States the suitable lifestyles and health practices						
			Identifies people with special needs in the community						
			Explains how to care for people with special needs in the community (the lame, deaf, dumb, blind, crippled)						
		21. Alcohol, smoking and drugs in the society	Describes alcohol and alcoholism						
			Discusses the factors and reasons for alcoholism, smoking and drug abuse in the community						
			Describes the methods of making alcohol						
			States the effects of alcoholism to an individual, family and the community						
			Defines smoking						
			Discusses the dangers of smoking to an individual, family and the community						
			Explains the meaning of essential and narcotic drugs						
			Describes drug misuse and drug abuse						
			Mentions the ways of storing essential drugs						
			Describes drug prescription						
			Mentions reasons for prescribing drugs						
			States the dangers of buying drugs from shops						

			Defines drug dependency and drugs of dependency						
			Explains the ways and reasons why people abuse drugs						
			States the ways of avoiding drug dependency						
			Discusses the life skills to safeguard against alcoholism, smoking and drugs						
		22. Accidents and first aid	Describes an accident, a casualty and first aid						
			Mentions the common accidents at school and on the way						
			Describes burns and scalds						
			States the causes and prevention of burns and scalds						
			Discusses the first aid and treatment for burns and scalds						
			Defines fever						
			Describes the causes, first aid and treatment for fever.						
			Defines drowning and near drowning						
			States the causes and prevention of drowning and near drowning						
			Explains the first aid for near drowning						
			Defines fainting, gives the causes, prevention first aid for fainting						
			Identifies examples of foreign bodies						

			Explains the first aid for different foreign bodies						
			Participates in the activities which prevent accidents						
		23. Sanitation	Identifies latrines, toilets and potties						
			Names types of latrines						
			Describes the importance of using latrines correctly						
			Demonstrates the proper use of latrines and toilets						
			Uses diagrams to describe the characteristics of different types of latrines and toilets						
			Discusses the problems faced by people using urban toilets						
			Uses local resources to make tools for cleaning latrines and toilets						
			Participates in the maintenance and cleanliness of latrines and toilets						
P.4	4. Human body	24. Human body organs	Explains the term cell, tissue and organ						
			Names different organs of the body						
			States the functions of different body organs						
			States ways in which different body organs work						

P.5			Draws and labels the parts of different body organs						
			States different ways of caring for different body organs						
		25. The teeth	Identifies different sets of teeth						
			Describes the different types of teeth and their functions						
			Draws and labels the general structure of a tooth						
			Identifies different diseases and disorders of teeth						
			Practises habits the promote oral health						
			Identifies the food stuffs we eat to clean our teeth						
		26. Digestive system	Defines digestive system						
			Uses a diagram to identify the parts of the digestive system and alimentary canal						
			Gives the functions of the parts of the digestive system						
			Describes the types of digestion (chemical and mechanical)						
			Identifies the diseases and disorders of the digestive system (causes, signs and symptoms)						

P.6			States the ways of controlling and preventing diseases and disorders the digestive system						
			Discusses the good health habits for maintaining the proper functioning of the digestive system						
		27. Circulatory system	Describes blood circulation						
			Describes the structure and functions of the heart						
			Uses diagrams to identify and describe the characteristics and functions of different types of blood vessels						
			Describes blood, its components and their functions						
			Mentions diseases and disorders of the circulatory system						
			Describes the ways of increasing the volume of blood in circulation						
			Describes the ways of caring for the circulatory system						
			Discusses the effects of AIDS on the infected and the affected						
		28. Respiratory system	Identifies the respiratory organs						
			Describes the lungs and breathing						
			Describes an experiment on human respiration						

			Draws and labels the respiratory organs						
			Describes the breathing mechanism						
			Participates in the campaign of keeping the respiratory system healthy						
		29. The reproductive system	Describes the growth and development of human beings (puberty and adolescence)						
			Identifies primary and secondary or physical sex characteristics in males and females						
			Describes social and emotional changes in adolescents						
			Describes the males and female reproductive cells and organs						
			Discusses the processes involved in reproduction (ovulation, copulation, fertilization, conception and pregnancy						
			Discusses the effects of teenage pregnancy						
			Demonstrates the proper ways of caring for reproductive organs						
			Identifies the diseases and disorders of the reproductive system						
			Defines family planning						
			Describes the natural and artificial methods of family planning and child spacing						

			Discusses the myths and misconceptions about family planning						
P.7		30. Muscular skeletal system	Identifies different bones and muscles of the human body						
			Identifies different joints found in the human body						
			Discusses the functions of muscular skeletal system						
			States the diseases and disorders of bones and muscles						
			Explains the ways of preventing muscular and skeletal diseases						
			Demonstrates the correct body posture						
			Describes the good health habits for the system						
			Draws and labels the skeleton and voluntary muscles						
		31. Excretory system	Describes excretion						
			Names the different excretory organs of the human body						
			Describes the functions of excretory organs in the human beings						
			Draws and labels the excretory organs correctly						
			Names the diseases and disorders of excretory organs						

			Practices the correct ways of keeping the excretory system health						
			Makes comparisons between the excretory system the natural environment						
P.5	5. Science in human activities and occupation	32. Keeping poultry and bees	Identifies the types of poultry						
			Draws and names the external parts of a domestic fowl						
			Names the types of chicken						
			Describes the breeds of chicken						
			Explains the uses of poultry to people						
			Discusses the systems of keeping poultry						
			Describes the management of poultry (housing and feeding)						
			Identifies the parasites and diseases of poultry						
			Discusses the types records kept on an a poultry farm						
			Describes the life history of bees						
			Names the types of honey bees						
			States the importance of bees to people and the environment						
			Explains the conditions and reasons for swarming						

			Identifies the types and examples of beehives						
			Describes the methods of harvesting and extracting honey						
			Explains the importance of bee farming as a project						
		33. Crop growing	Identifies the common tuber crops						
			Names the types of tuber crops						
			Describes the characteristics of tuber crops						
			Discusses the ways of growing and caring for tuber crops						
			Identifies the common pests and diseases of tuber crops						
			Discusses the methods of controlling and preventing pests and diseases of tuber crops						
			Describes the ways of harvesting, processing and storing different tuber crops						
			Practices the growing of tuber crops as a project by young farmers clubs						

P.6	34. Keeping goats, sheep and pigs	Identifies the external parts of a goat, sheep and pig							
		Describes the different breeds of goats, sheep and pigs and their specific purposes							
		Names the parasites and diseases of goats, sheep and pigs							
		Discusses the causes, signs, symptoms and ways controlling diseases in goats, sheep and pigs							
		Describes the methods of feeding and housing goats, sheep and pigs							
		Practices keeping goats, sheep and pigs a project							
		Identifies different records kept in the farms							
	35. Keeping cattle	Identifies the types of cattle							
		Identifies different breeds of cattle and their uses							
		Names the external parts of a cow and a bull							
		Participates in the care for cattle							
		Describes the ways of grazing, watering and housing cattle							
		Describes the milking process on the farm							
		Names the milk products							
		Identifies the pests and diseases of cattle							

			Describes the causes, signs, symptoms, treatment, prevention and control of cattle pests and diseases						
			Explains the practices that harm cattle and other domestic animals						
			Participates in starting a simple livestock farm						
		36. Science at home and in our community	Describes the methods of preparing safe and clean water for drinking and washing						
			Discusses the steps of cleaning clothes						
			Constructs a simple water purifying system						
			Identifies water impurities						
			Describes water pollutants from chemicals						
			Explains the steps of obtaining local salt from ash.						
P.5	6. Managing changes in the environment	37. Types of changes	Identifies the types of changes in the environment						
			Gives the meaning of biological, chemical and physical changes						
			Names the examples of different types of changes						
			Describes the characteristics of different types of changes						
			Explains how to manage different changes in the environment						

			Sets up an experiment to investigate the conditions for burning and rusting						
P.5	7. Matter and energy	38. Measurements	States the different measurements of objects						
			Explains the standard and basic units for measuring mass, weight, volume and density						
			Uses correct instruments and apparatus to take measurements						
			Explains the behavior of different objects in water (sinking and floating)						
			Finds volume of different objects using different methods						
			Finds density of different objects in relation to mass and volume						
		39. Heat energy	Defines matter						
			Identifies the states of matter						
			Discusses the properties of matter						
			Describes solutes, solvents and solutions						
			Defines energy						
			Identifies types and forms of energy						
			Discusses the characteristics of energy						
			Defines heat energy						
			Identifies natural and artificial sources of heat energy						

			States the uses of heat in environment						
			Describes the effects of heat loss and gain on matter (expansion, contraction and changes in states of matter)						
			Identifies the methods of heat transfer in all states of matter and vacuum						
			Defines conductors and insulators of heat						
			Identifies examples of conductors and insulators of heat						
			Explains the uses of conductors and insulators of heat in our daily life.						
			Explains the application of different methods of heat transfer in our daily life						
			Defines temperature						
			States the types of thermometers and measures temperature						
			Gives the uses of different types of thermometers						
			States differences between different types of thermometers						
			Names the units for measuring temperature						
			Identifies the different temperature scales						
			Converts from Celsius scale to Fahrenheit scale and vice versa						

P.6		40. Sound energy							
			Explains the term sound						
			Experiments on sound as a form of energy						
			Identifies natural and artificial sources of sound						
			Describes how sound travels from one place to another						
			Defines musical instruments						
			States the different ways through which sound is produced, stored and reproduced						
			Identifies the devices for storing and reproducing sound						
			Gives the types and examples of musical instruments						
			Explains how different musical instrument are played						
			States how different musical instruments produce sound						
			Carries out experiments on the behavior of sound with different materials (volume, echoes, pitch and frequency of sound)						
			Draws and names the different parts of the human ear						
			States the functions the parts of the human ear.						
			Describes the process of hearing in human beings.						

P.7			Describes the diseases and disorders of the human ear.						
			Compares the human ear with other organs of hearing in other animals.						
			Discusses the ways of caring for the human ear.						
		41. Electricity and magnetism							
			Defines electricity as a form of energy.						
			Identifies the types of electricity (current and static electricity).						
			Names the sources of electricity.						
			Defines conductors and insulators of electricity.						
			Names the examples of conductors and insulators of electricity						
			States the applications of conductors and insulators of electricity in our day to day life.						
			Describes an electric circuit (components and their uses)						
			Describes short circuits, causes and ways of preventing them.						
			Discusses the importance electricity in solving everyday problems.						
			States the advantages of using electricity.						
			States the safety precautions in handling electric appliances.						

			Defines magnets and magnetism.						
			Describes the properties of the magnetic field.						
			Describes magnetic and non-magnetic materials.						
			States and experiments on the properties of magnets.						
			Explains the applications of different properties of magnets in our daily life.						
			Identifies the types of magnets and their respective examples.						
			Explains the methods of making temporary magnets (stroking, induction and electrical method)						
			Describes how an electric bell works.						
			Explains how to generate electricity using dynamos, generators and electric motors.						
			Explains electricity and magnetism in the modern world of work.						
		42. Simple machines and friction	Defines friction.						
			States the uses of friction.						
			Explains the ways of increasing friction.						
			States the dangers of friction.						
			Describes the ways of reducing friction.						
			Define simple machines.						
			Explains how simple machines simplify work.						

			Finds mechanical advantage of simple machines.						
			Identifies the groups of simple machines.						
			Describes levers (classes and principle of moments or momentum).						
			Describes inclines planes (examples, uses and M.A)						
			Defines wedge and gives examples.						
			States how wedges are useful in our daily life.						
			Describes screws (meaning, nature, examples and uses).						
			Discusses pulleys (meaning, types and how they simplify work).						
			Describes wheels and axles (examples and uses).						
			Compare the human body parts to simple machine.						
		43. Light energy	Defines light as a form of energy.						
			Names the natural and artificial sources of light.						
			Experiments to investigate how heat travels.						
			Describes the characteristics of images formed by a pinhole camera						
			Describes rays and beams of light.						

			Explains the effect of different materials on beams of light (transparent, translucent and opaque objects).						
			Describes reflection of light (types and simple calculation).						
			Describes the formation of shadows and eclipses.						
			States the uses of plane mirrors.						
			States the characteristics of images forms by plane mirrors.						
			Describes refraction (meaning, causes and effects).						
			Describes refraction through glass block and prisms.						
			Explains the formation the rainbow and a spectrum.						
			Describes lenses (meaning, types and their effects on beams of light).						
			Names the parts of a lens camera.						
			States the functions of parts of a lens camera.						
			Describes the images formed by a lens camera.						
			Draws and names the parts of the human eye.						
			Describes the functions of the parts of the human eye.						

			States the characteristics of images formed by the human eye.						
			Compares the parts of the human eye with those of the lens camera.						
			Discusses the eye defects (types, causes and correction).						
			Identifies the diseases of the human eye, causes, spread and prevention.						
			Explains the health habits for keeping the human eyes healthy.						
P.7	8. The community, population and family life	44. Population and health	Names the common sicknesses in a home and community						
			States the causes and ways of controlling common sicknesses in a home and community.						
			Defines antisocial behaviours.						
			Identifies the examples of antisocial behaviours.						
			States the causes and dangers of antisocial behaviours.						
			Discusses the ways of avoiding or controlling antisocial behaviours.						
			Defines health concerns.						
			Identifies health concerns in the community.						
			States the activities done to address health concerns in the community.						

			Defines health surveys.						
			Gives the importance of health surveys.						
			Explains how a health survey is done.						
			Defines health education.						
			Explains the importance of health education.						
			Discusses how health education is done.						
			Describes demography						
			States the importance of demography						

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EVERYTHING IS SUBJECT TO CHANGE IF ADVISED