

CAREER TECH

CONTENT AREAS					
STRANDS		SUB- STRANDS		PRE-TECH SKILLS	HOME EONS
1	Health and Safety	1. Personal Hygiene and Food Hygiene		X	X
		2. Personal, Workshop and Food laboratory safety		X	X
		3. Environmental Health		X	X
2	Materials for Production	1. Compliant Materials		X	X
		2. Resistant Materials		X	X
		3. Smart and Modern Materials		X	X
		4. Food Commodities (animal and plant sources)		-----	X
3	Tools, Equipment and Processes	Measuring and Marking Out			
		1. Cutting/Shaping		X	X
		2. Joining and Assembling		X	X
		3. Kitchen Essentials		-----	X
		4. Finishes and Finishing		X	X
4	Technology	Simple Structures and Mechanisms, Electric and Electronic Systems		X	-----
5	Designing and Making of Artefacts/Products	1. Communicating Designs		X	-----
		2. Designing		X	-----
		3. Planning for making Artefacts/Products		X	X
		4. Making Artefacts from Compliant, Resistant Materials and Food Ingredients		X	X
6	Entrepreneurial Skills	1. Career Pathways and Career Opportunities		X	X
		2. Establishing and Managing a Small Business Enterprise		X	X
Total					

CAREER TECHNOLOGY CONTENT DEVELOPMENT FOR TEST ITEMS

NO	CONTENT AREA		COMPETENCIES	DESCRIPTIVE STATEMENT
1	STRANDS	SUB-STRANDS		
	HEALTH AND SAFETY	Personal hygiene and food hygiene	Demonstrate knowledge of the basic concept of staying healthy	<ul style="list-style-type: none"> • Explain the need to stay healthy • Discuss good grooming practices • Analyze ways of maintaining personal hygiene • Identify the consequences of not taking good care of your body
		Personal, workshop and food laboratory safety	Demonstrate knowledge of preventing accidents in the workshop and food laboratory	<ul style="list-style-type: none"> • Identify skills that relate to personal, workshop and food laboratory safety • Describe the causes of accidents in the workshop/food laboratory • Examine the causes of environmental health • Apply ways of keeping the workshop/ food laboratory safe
Environmental Health		Demonstrate knowledge of the basic concept of environmental health	<ul style="list-style-type: none"> • Explain environmental health • Investigate factors that lead to environmental health • Assess ways of preventing poor sanitation in schools and home • Enumerate the constituents of environmental health • Demonstrate basic skills in applying first aid to self and others 	
2	MATERIALS FOR PRODUCTION	Compliant materials	Demonstrate knowledge of the basic concept of compliant materials	<ul style="list-style-type: none"> • Describe compliant materials • Distinguish between types of compliant materials • Discuss the basic characteristics and properties of compliant materials

				<ul style="list-style-type: none"> • Discuss the factors that influence the selection of complaints materials • Apply the processes involved in working with complaints materials in making an artefact
		Resistant materials	Demonstrate knowledge of the basic concept of resistant materials	<ul style="list-style-type: none"> • Describe resistant materials • Explain how each of the resistant materials is obtained • Distinguish between the types of resistant materials • Discuss the basic characteristics and properties of resistant materials • Discuss the factors that influence the selection of resistant materials • Apply the processes involved in working with resistant materials in making an artefact
		Smart and modern materials	Demonstrate an understanding of the properties of smart and modern materials	<ul style="list-style-type: none"> • Describe smart materials • Explain how each of the smart materials is obtained • Distinguish between the types of smart materials • Discuss the basic characteristics and properties of smart materials • Discuss the factors that influence the selection of smart materials • Apply the processes involved in working with smart materials in making an artefact
		Food commodities (animal and plant sources)	Demonstrate knowledge of basic food commodities	<ul style="list-style-type: none"> • Discuss food commodities • Classify food commodities under the two main sources
			Demonstrate an understanding of the	<ul style="list-style-type: none"> • Classify foods according to their basic functions

			functions of food commodities	<ul style="list-style-type: none"> • Relate foods commodities to their functions
			Demonstrate skills in selecting food commodities in meal preparation	<ul style="list-style-type: none"> • Explain how to select food commodities used for meal preparation • Describe the qualities to look out for when buying food commodities
3	TOOLS, EQUIPMENT AND PROCESSES	Measuring and marking out	Demonstrate understanding of measuring and marking out tools and equipment for production	<ul style="list-style-type: none"> • Identify appropriate measuring and marking out tools for a particular job in the workshop • State the techniques of using measuring and marking out tools. • Differentiate between measuring and marking out tools. • Analyze complex technical challenges of measuring and marking out tools in technical skills • Accurately measure and mark out components or materials with high precision.
		Cutting and Shaping	Demonstrate understanding of cutting/shaping tools and equipment for production	<ul style="list-style-type: none"> • Identify the cutting and shaping tools and equipment used in equipment for production • State common faults and their solutions when replacing worn-out parts or recalibrating measuring equipment. • Use appropriate skills in cutting, chopping, slicing, dicing and shaping products • Sketch and label cutting and shaping tools. • Apply the appropriate procedure for caring and maintaining for cutting and shaping tools and equipment

		Joining and Assembling	Demonstrate understanding of joining and assembling materials, tools and equipment used for production	<ul style="list-style-type: none"> • Identify joining and assembling materials, tools and equipment used for making artefacts/ products • Sketch and label tools used for joining and assembling • Use appropriate techniques for joining the wood, metal, bricks/blocks, plastics, sewing • Classify the appropriate skills for joining and assembling artefacts. • Analyze the appropriate techniques for joining and assembling materials
		Kitchen Essentials	Demonstrate knowledge and understanding of the kitchen essentials	<ul style="list-style-type: none"> • Describe kitchen essentials • Classify the kitchen essentials according to sizes • Use appropriate material for cleaning basic kitchen essentials. E.g., washing, cleaning, sterilizing • Apply the appropriate skills in handling kitchen essentials
		Finishes and Finishing	Demonstrate knowledge of finishes and finishing	<ul style="list-style-type: none"> • Identify finishes and finishing applied to products/ artefacts • Explain edge finishes. • State the reasons why the edges of sewing articles are finished. • Apply skills of working on the edge finishes
4	TECHNOLOGY	Simple structures and mechanisms, electric and electronic systems	Demonstrate understanding of structures in construction	<ul style="list-style-type: none"> • Identify structures in the construction of objects • Describe the role of structures in the construction

				<ul style="list-style-type: none"> • Classify structures in the construction of objects • Distinguish between the types of structures • Identify the causes of structural failures in the construction of objects • Investigate the causes of structural failures in the construction of objects
			Demonstrate understanding of the application of principles of forces acting on structures	<ul style="list-style-type: none"> • Identify the types of forces that act on structures • Distinguish between the types of forces that act on structures • Sketch and label the various types of forces that act on structures: Forces acting on structural members • Apply suitable resistant materials in the construction of objects
			Demonstrate knowledge of mechanisms in projects construction	<ul style="list-style-type: none"> • Explain what is meant by mechanisms • Identify the various types of mechanisms in the construction of objects • Identify artefacts in the environment that operates on mechanisms. • illustrate the operations of the various types of mechanisms • Discuss the advantages and disadvantages of the various types of mechanisms • State the reasons for incorporating mechanisms for a particular job.
5	DESIGNING AND MAKING OF ARTEFACTS/ PRODUCTS	Communicating designs	Demonstrate knowledge and skills of drawing materials, instruments, lines and their applications, and freehand sketching	<ul style="list-style-type: none"> • Identify drawing materials, instruments and equipment used for graphic communication • Distinguish between drawing materials, instruments and equipment. • Uses of drawing materials, tools and equipment

		Demonstrate understanding of developing surfaces of objects for production/ manufacturing	<ul style="list-style-type: none"> • Identify types of lines used in drawing. • Draw plane figures using instruments • Draw objects in pictorial using instruments • Differentiate between prisms and pyramids. • Evaluate the importance of developing surfaces of objects before manufacturing
	Designing	Demonstrate understanding of Designing	<ul style="list-style-type: none"> • Observe problem situations in the environment. • Write the problem situation. • State a suitable design brief to address the problem. • Analyze the problem and list the possible ideas for the solution.
	Planning for making artefacts/ products	Demonstrate understanding of planning for making artefacts/products	<ul style="list-style-type: none"> • Discuss the factors to consider when planning artefacts/ products and meals • Identify and explain the different types of meals served in a day. • Explain the factors to consider when planning artefacts/ products meals. • Plan and make sewing artefacts/products • Plan and make wooden, metal and plastic artefacts • Plan and make building artefacts • Prepare food using different methods of cooking • Examine and conclude the working drawings and cutting list obtained from the communication design
	Making artefacts from compliant, resistant materials and food ingredients	Demonstrate skills in making artefacts/ products	<ul style="list-style-type: none"> • Prepare a meal by choosing from any one of the three (3) types of boiling methods of cooking with an accompaniment stew,

				<ul style="list-style-type: none"> • Make specimens or samples of basic sewing stitches individually. • Fold the parts of the surface developed to obtain the required artefact. • Use appropriate joining materials, tools/equipment to complete the required artefact. • Collecting and reporting data and writing reports. • Apply the making operations in sequence to make the artefact. • Test the manufactured artefact using the specification as a guide.
6	ENTREPRENEURIAL SKILLS	Career pathways and career opportunities	Demonstrate awareness of individual learning styles, interests, biases, beliefs and reasons for pursuing Career Technology	<ul style="list-style-type: none"> • State individual learning styles, interests, biases and beliefs • Give reasons for pursuing Career Technology. • Examine individual biases and beliefs about some vocations (as a male or female)
			Demonstrate knowledge of career opportunities in Career Technology	<ul style="list-style-type: none"> • Explore the various career pathways and opportunities in Career Technology • Examine individual interests, skills and values in light of the career opportunities • Compare individual career options against an individual list of prioritized skills, interests and values.
			Demonstrate understanding of the changing nature of the workplace, the value of work to society, and the connection of work to the achievement of personal goals	<ul style="list-style-type: none"> • Describe how changes at the workplace can bring about global competition and technology • Analyze the value of work to the individual and society in general • Compare the advantages and disadvantages of working for self and others

				<ul style="list-style-type: none"> • Develop a career plan that would assist in the transition from school to eventual entry into a career option
		Establishing and Managing a Small Business Enterprise	Demonstrate understanding of establishing and managing a small business enterprise	<ul style="list-style-type: none"> • Explain what is meant by 'entrepreneurship' and 'entrepreneur' • Describe the characteristics of a successful entrepreneur • Explain the characteristics of an entrepreneur. • Identify entrepreneurial opportunities in the locality • Explain the advantages and disadvantages of being an entrepreneur
			Demonstrate understanding of establishing and managing micro and small business enterprises	<ul style="list-style-type: none"> • Explain micro, small and medium-sized business enterprises • Distinguish between Micro, Small and Medium-sized Business Enterprises • Establish the steps involved in setting up micro and small business enterprises • Identify legal business forms in Ghana
			Demonstrate understanding of establishing and managing a small business enterprise	<ul style="list-style-type: none"> • Describe how to start and run a small business • Discuss how to name a business • Explain how to manage the resources of small business enterprises • State factors to consider when running and managing a small-scale business. • Discuss the processes of managing a business,

CAREER TECHNOLOGY
TABLE OF SPECIFICATION

NO.	CONTENT AREAS		Course Objectives/Outcomes (DoK)				Sub - Total	Total
	Strands	Sub- Strands	Level 1 (Recall) (%)	Level 2 (Skills/Concepts) (%)	Level 3 (Strategic Thinking) (%)	Level 4 (Extended Thinking) (%)		
1	Health and Safety	Personal Hygiene and Food Hygiene	-	1	1	1	3	10
		Personal, Workshop and Food Laboratory Safety	1	1	1	1	4	
		Environmental Health	-	1	1	1	3	
2	Materials for Production	Compliant Materials	1	1	2	2	6	25
		Resistant Materials	1	1	2	2	6	
		Smart and Modern Materials	1	1	1	3	6	
		Food Commodities (animal and plant sources)	1	1	3	2	7	
3	Tools, Equipment and Processes	Measuring and Marking Out	-	1	2	1	4	25
		Cutting/Shaping	1	2	2	1	6	
		Joining and Assembling	1	1	1	1	4	
		Kitchen Essentials	1	2	2	1	6	
		Finishes and Finishing	0	1	2	2	5	

4	Technology	Simple Structures and Mechanisms, Electric and Electronic Systems	2	2	3	3	10	10
5	Designing and Making of Artefacts/Products	Communicating Designs	1	1	1	1	4	20
		Designing	1	1	1	1	4	
		Planning for making Artefacts/Products	0	2	1	2	5	
		Making Artefacts from Compliant, Resistant Materials and Food Ingredients	1	3	1	2	7	
6	Entrepreneurial Skills	Career Pathways and Career Opportunities	1	1	1	1	4	10
		Establishing and Managing a Small Business Enterprise	1	1	2	2	6	
	Total		15%	25%	30%	30%	100%	100%