

**TECHNOLOGY AND LIVELIHOOD EDUCATION (TLE)  
GRADE 7**

**QUARTER I - INFORMATION AND COMMUNICATION TECHNOLOGY (ICT)**

<b>CONTENT</b>	<b>CONTENT STANDARD</b> The learners...	<b>LEARNING COMPETENCIES</b> The learners...
Sectors of ICT and Its Career and Business Opportunities <ul style="list-style-type: none"> <li>• computer programming - programmer/web and game developer</li> <li>• visual arts – animator/illustrator/ graphic designer</li> <li>• computer system servicing – computer/ Network technician</li> <li>• telecommunication – call center agents/ outbound and inbound agents/ contact center services</li> </ul>	demonstrate an understanding of ICT sectors, as well as the potential career and business opportunities these sectors offer in relation to their chosen career in the future	1. analyze the various sectors of ICT and evaluate the potential career and business prospects relevant to their future career choices
Trends and Issues in ICT	demonstrate an understanding of current trends and emerging issues in ICT	2. discuss the emerging trends and issues in ICT
Qualities of Successful Entrepreneurs in the Field of ICT	demonstrate an understanding of the qualities of successful entrepreneurs in the field of ICT	3. discuss the qualities of successful entrepreneurs in the field of ICT
Occupational Safety and Health (OHS) Standards in ICT <ul style="list-style-type: none"> <li>• hazards and risks management</li> <li>• 5s (sort, standardize, set in order, shine, sustain)</li> <li>• safety regulations</li> </ul>	demonstrate an understanding of the Occupational Safety and Health (OSH) standards in ICT environments	4. discuss Occupational Safety and Health (OSH) standards in ICT environments
Computer Number Systems <ul style="list-style-type: none"> <li>• binary</li> <li>• octal</li> <li>• decimal</li> </ul>	demonstrate an understanding of the computer number systems	5. differentiate the various computer number systems

<b>CONTENT</b>	<b>CONTENT STANDARD</b> The learners...	<b>LEARNING COMPETENCIES</b> The learners...
<ul style="list-style-type: none"> <li>• hexadecimal</li> </ul>		
Conversion of Computer Number Systems <ul style="list-style-type: none"> <li>• binary</li> <li>• octal</li> <li>• decimal</li> <li>• hexadecimal</li> </ul>	demonstrate an understanding of conversion of computer number systems	6. apply conversion of computer number systems
<b>PERFORMANCE STANDARD</b>	The learners convert number systems in practical scenarios	
Word Processing Software <ul style="list-style-type: none"> <li>• page breaks</li> <li>• auto tables of contents</li> <li>• mail merge</li> <li>• references</li> </ul>	demonstrate an understanding of using productivity software	7. create word documents with page breaks, auto tables of contents, mail merge, and references
Presentation Software <ul style="list-style-type: none"> <li>• rules in creating presentations</li> <li>• master slide</li> <li>• animation (motion path)</li> <li>• animation pane</li> <li>• hyperlink</li> <li>• action buttons</li> </ul>		8. create presentations with a master slide, motion paths, hyperlinks, and action buttons
Spreadsheet Software <ul style="list-style-type: none"> <li>• conditional formatting functions</li> <li>• data analysis</li> </ul>		9. create spreadsheets with conditional formatting and data analysis
<b>PERFORMANCE STANDARD</b>	The learners perform the utilization of productivity tools in a safe and responsible manner	

**QUARTER II – AGRICULTURE AND FISHERY ARTS (AFA)**

<b>CONTENT</b>	<b>CONTENT STANDARD</b> The learners...	<b>LEARNING COMPETENCIES</b> The learners...
Career Opportunities <ul style="list-style-type: none"> <li>● agriculturist</li> <li>● farm technician</li> <li>● farm owner</li> </ul> Business Opportunities <ul style="list-style-type: none"> <li>● traders</li> <li>● entrepreneurs</li> </ul>	demonstrate an understanding of the concepts and skills in agri-crops and animal production	1. discuss career and business opportunities in agriculture
Agricultural Tools, Implements, and Equipment <ul style="list-style-type: none"> <li>● agricultural tools, implements, and equipment and their uses</li> <li>● precautionary measures</li> <li>● safety procedures in using tools and equipment</li> </ul>		2. differentiate agricultural tools, implements, and equipment  3. identify different tools and equipment used in agriculture  4. discuss safety procedures in farm operations
Agricultural Hazards and Risks in Farm Operations		5. discuss hazards and risks in farm operations
Agricultural Practices in Crop Production <ul style="list-style-type: none"> <li>● site selection</li> <li>● land preparation</li> <li>● crop selection</li> <li>● planting</li> <li>● transplanting</li> </ul>		6. perform agricultural practices in crop production
Care and Maintenance of Crops <ul style="list-style-type: none"> <li>● weeding and cultivating</li> <li>● irrigation/water supply</li> <li>● fertilizing</li> </ul>		7. discuss care and maintenance of crops

<b>CONTENT</b>	<b>CONTENT STANDARD</b> The learners...	<b>LEARNING COMPETENCIES</b> The learners...
<ul style="list-style-type: none"> <li>● mulching using organic materials</li> <li>● natural prevention and control of common pests and diseases (using natural farming/organic farming)</li> </ul>		
Farm Waste Processing <ul style="list-style-type: none"> <li>● composting (basket composting) and fermentation (foliar fertilizer)</li> </ul>		8. explain farm waste processing 9. perform basket composting and foliar fertilizer fermentation
Agricultural Practices in Harvesting Crops <ul style="list-style-type: none"> <li>● harvesting</li> <li>● post-harvesting</li> </ul>		10. discuss harvesting and post-harvesting practices
<b>PERFORMANCE STANDARD</b>	The learners perform agricultural practices in crop production based on industry standards	
Breeds of Farm Animals <ul style="list-style-type: none"> <li>● poultry animals               <ul style="list-style-type: none"> <li>○ poultry chicken (layer and broiler)</li> <li>○ quail</li> <li>○ ducks</li> </ul> </li> <li>● livestock animals               <ul style="list-style-type: none"> <li>○ swine</li> <li>○ rabbit</li> <li>○ small ruminants (dairy- and meat-type such as goat and sheep)</li> <li>○ large ruminants (dairy- and meat type- such as cattle and buffalo)</li> </ul> </li> </ul>	demonstrate an understanding of the concepts and skills in agri-crops and animal production	11. determine the breeds of farm animals

<b>CONTENT</b>	<b>CONTENT STANDARD</b> The learners...	<b>LEARNING COMPETENCIES</b> The learners...
Materials, Tools, and Equipment for Poultry and Livestock Animals		12. determine poultry and livestock materials, tools, and equipment and their uses based on industry standards
Housing Requirements for Poultry and Livestock Animals <ul style="list-style-type: none"> <li>● site selection</li> <li>● types of housing</li> <li>● design and layout</li> </ul>		13. illustrate housing requirements for poultry and livestock based on industry standards
Feeding Management for Poultry and Livestock Animals <ul style="list-style-type: none"> <li>● types of feeds</li> <li>● feed ingredients</li> <li>● feed mensuration and calculation</li> <li>● feeding frequency</li> <li>● OSH in feeding operations</li> </ul>		14 discuss feeding management according to the Philippine National Standard (PNS) for poultry and livestock animals
Farm Waste Management in Animal Production		15. discuss farm waste management in poultry and livestock production according to Republic Act No 9003 or the Ecological Solid Waste Management Act of 2000
Products and Byproducts of Poultry and Livestock Animals <ul style="list-style-type: none"> <li>● raw products</li> <li>● processed products</li> </ul>		16. identify products and byproducts of poultry and livestock production
<b>PERFORMANCE STANDARD</b>		The learners illustrate the housing requirements for poultry and livestock based on industry standards

**QUARTER III – FAMILY AND CONSUMER SCIENCE (FCS)**

<b>CONTENT</b>	<b>CONTENT STANDARD</b> The learners...	<b>LEARNING COMPETENCIES</b> The learners...
Fundamentals of Hospitality and Tourism Industry	demonstrate an understanding of the fundamentals of the hospitality and tourism industry	1. differentiate hospitality and tourism
Tourism <ul style="list-style-type: none"> <li>• kinds of tourists</li> <li>• types and forms of tourism               <ul style="list-style-type: none"> <li>○ based on the point of origin</li> <li>○ based on the purpose of travel</li> </ul> </li> </ul>		2. distinguish the types and forms of tourism and the kinds of tourists
Hospitality <ul style="list-style-type: none"> <li>• scope of hospitality industry               <ul style="list-style-type: none"> <li>○ accommodation and lodging</li> <li>○ travel services</li> <li>○ food and beverage services</li> <li>○ recreation and entertainment</li> <li>○ clubs</li> <li>○ conventions and events management</li> <li>○ cruise</li> </ul> </li> <li>• types of accommodations and their characteristics</li> <li>• hotel types and classification</li> </ul>		3. explain the scope of the hospitality industry
Career Opportunities in Hospitality and Tourism Industry		4. identify career and business opportunities in the hotel and tourism industry

<b>CONTENT</b>	<b>CONTENT STANDARD</b> The learners...	<b>LEARNING COMPETENCIES</b> The learners...
Issues, Challenges, Trends and Innovations in Hospitality and Tourism		5. examine the issues, challenges, trends, and innovations in the hospitality and tourism industry
Fundamentals of Food Preparation and Service <ul style="list-style-type: none"> <li>• different food service operations               <ul style="list-style-type: none"> <li>○ commercial</li> <li>○ institutional</li> </ul> </li> <li>• basic rules in food preparation and service</li> <li>• kitchen layout</li> </ul>		6. discuss the fundamentals of food preparation and service
Seven Principles of Hazard Analysis Critical Control Point (HACCP)		7. recognize the seven principles of HACCP in food preparation and service
Tools and Equipment in Food Preparation <ul style="list-style-type: none"> <li>• kitchen</li> <li>• food service</li> <li>• care and maintenance</li> </ul>		8. identify the common tools and equipment used in food preparation and service industry  9. discuss the care and maintenance of tools and equipment used in food preparation and service industry
Table Napkin Fold <ul style="list-style-type: none"> <li>• uses of table napkin</li> <li>• table napkin sizes</li> <li>• basic table napkin fold</li> </ul>		10. demonstrate table napkin folds

<b>CONTENT</b>	<b>CONTENT STANDARD</b> The learners...	<b>LEARNING COMPETENCIES</b> The learners...
Food Selection, Preparation and Cooking <ul style="list-style-type: none"> <li>• guidelines in food selection</li> <li>• guidelines in food preparation</li> </ul> Principles of Cooking <ul style="list-style-type: none"> <li>• heat transfer</li> <li>• effects of heat</li> </ul> Kitchen Math <ul style="list-style-type: none"> <li>• English and metric system</li> </ul>		11. discuss the principles of food selections and preparation  12. convert units of measurement
<b>PERFORMANCE STANDARD</b>	The learners apply skills in food preparation and services following safety precautions	



## QUARTER IV – INDUSTRIAL ARTS (IA)

CONTENT	CONTENT STANDARD The learners...	LEARNING COMPETENCIES The learners...
<p>Services in Industrial Arts</p> <ul style="list-style-type: none"> <li>• construction services (woodwork, metal works, masonry, construction painting, plumbing, tile setting)</li> <li>• electrical-electronics services (electronics product assembly and services, electrical installation and maintenance, domestic refrigeration and air condition services)</li> <li>• automotive and small engine (automotive servicing, motorcycle/ small engine servicing)</li> </ul> <p>Career and Business Opportunities</p>	<p>demonstrate an understanding of the concepts in industrial arts services</p>	<p>1. discuss the services in industrial arts</p> <p>2. determine career and business opportunities in industrial arts</p>
<p>Codes and Standards in Industrial Arts Services</p> <ul style="list-style-type: none"> <li>• National Building Code of the Philippines or Republic Act No 6451 (residential construction)</li> <li>• Philippine Electrical Code (residential wiring)</li> <li>• Philippine Electronics Code</li> <li>• traffic and road signs</li> </ul> <p>Hand Tools, Power Tools, Instruments, and Equipment Used in Industrial Arts Services</p> <ul style="list-style-type: none"> <li>• power tools               <ul style="list-style-type: none"> <li>○ hydraulic tools</li> <li>○ pneumatic tools</li> </ul> </li> </ul>	<p>demonstrate an understanding of the codes and standards in industrial arts services</p> <p>demonstrate an understanding of the uses and maintenance of hand tools, power tools, instruments, and equipment</p>	<p>3. discuss the codes and standards for industrial arts services</p> <p>4. identify the uses and maintenance of hand tools, power tools, instruments, and equipment</p>

<b>CONTENT</b>	<b>CONTENT STANDARD</b> The learners...	<b>LEARNING COMPETENCIES</b> The learners...
<ul style="list-style-type: none"> <li>• instruments (analog, digital, and computer-based) <ul style="list-style-type: none"> <li>○ measuring</li> <li>○ calibrating</li> <li>○ testing</li> </ul> </li> <li>• equipment and accessories <ul style="list-style-type: none"> <li>○ construction services</li> <li>○ electro-mechanical services</li> <li>○ electrical services</li> <li>○ automotive and small engine services</li> </ul> </li> </ul> <p>Preventive Maintenance</p> <ul style="list-style-type: none"> <li>• handling</li> <li>• storing</li> </ul>		
<p>Scale Reading</p> <ul style="list-style-type: none"> <li>• volt-ohm-milliammeter</li> <li>• tachometer</li> <li>• oscilloscope</li> <li>• ampere meter</li> </ul>	<p>demonstrate an understanding of the concepts and principles in performing mensuration and calculations</p>	<p>5. interpret the readings in different measuring instruments</p>
<p>Mensuration and Calculations</p> <ul style="list-style-type: none"> <li>• linear measurement</li> <li>• ratio and proportion</li> <li>• Ohm's Law</li> <li>• Power Law</li> </ul>		<p>6. demonstrate mensuration and calculations following safety precautions</p>
<b>PERFORMANCE STANDARD</b>	The learners perform mensuration and calculations following safety precautions	