

**CUMBERLAND COUNTY SCHOOL DISTRICT
BENCHMARK ASSESSMENT CURRICULUM PACING GUIDE**

School: High School	Subject: Agriculture-Horticulture	Grade: 9-12
Benchmark Assessment 1		
Instructional Timeline:12 Weeks		
Topic(s):Horticulture Academic Standards		
Kentucky Core Academic Standards	Learning Targets (I Can Statements)	Key Vocabulary
SPEAKING AND LISTENING	Utilize effective verbal and non-verbal communication skills	Verbal, Non Verbal Communication
	Participate in conversation, discussion, and group presentations	Communication Skills
READING AND WRITING	Communicate and follow directions/procedures	Workplace Readiness
	Communicate effectively with customers and co-workers	Effective Communication
	Locate and interpret written information	Writing Skills
	Read and interpret workplace documents	Locating Information
	Identify relevant details, facts, and specifications	Directions
	Record information accurately and completely	Note Taking
	Demonstrate competence in organizing, writing, and editing using correct vocabulary, spelling, grammar, and punctuation	Vocabulary, Spelling, Grammar
CRITICAL THINKING AND PROBLEM	Demonstrate the ability to write clearly and concisely using industry specific terminology	Penmanship
	Utilize critical-thinking skills to determine best	Analyze reliable/unreliable sources of

SOLVING	<p>options/outcomes</p> <p>Utilize innovation and problem-solving skills to arrive at the best solution for current situation</p> <p>Implement effective decision-making skills</p>	<p>information,</p> <p>use previous experiences, implement crisis management</p> <p>Develop contingency planning</p>
MATHEMATICS	<p>Perform basic and higher level math operations</p> <p>Solve problems using measurement skills</p> <p>Make reasonable estimates</p> <p>Use tables, graphs, diagrams, and charts to obtain or convey information</p> <p>Use deductive reasoning and problem-solving in mathematics</p>	<p>Addition, subtraction, multiplication, division, decimals, fractions, units of conversion, averaging, percentage, proportion, ratios</p> <p>Distance, Weight, Area, Volume</p> <p>Estimation</p> <p>Charts, Diagrams</p> <p>Word Problem Math</p>
FINANCIAL LITERACY	<p>Locate, evaluate, and apply personal financial information</p> <p>Identify the components of a budget and how one is created</p> <p>Set personal financial goals and develop a plan for achieving them</p> <p>Use financial services effectively</p> <p>Demonstrate ability to meet financial obligations</p>	<p>Financial Information</p> <p>Budget</p> <p>Goal Setting</p>

INTERNET USE AND SECURITY	<p>Recognize the potential risks associated with Internet use</p> <p>Identify and apply Internet security practices</p> <p>Practice safe, legal, and responsible use of technology in the workplace</p>	<p>Password security, Login, Logout</p> <p>Log off, Lock computer</p> <p>Internet Safety</p>
INFORMATION TECHNOLOGY	<p>Use technology appropriately to enhance professional presentations</p> <p>Demonstrate effective and appropriate use of social media</p> <p>Identify ways social media can be used as marketing, advertising, and data gathering tools</p>	<p>PowerPoint</p> <p>Marketing and Advertising</p>
TELECOMMUNICATIONS	<p>Select and use appropriate devices, services, and applications to complete workplace tasks</p> <p>Demonstrate appropriate etiquette when using e-communications</p>	<p>Cell phone, e-mail</p> <p>Personal digital assistants, online meetings, conference calls</p>

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School: High School	Subject: Agriculture-Horticulture	Grade: 9-12
Benchmark Assessment 2		
Instructional Timeline:12 Weeks		
Topic(s): Horticulture Employability Standards		
Kentucky Core Academic Standards	Learning Targets (I Can Statements)	Key Vocabulary
POSITIVE WORK ETHIC	Demonstrate enthusiasm and confidence about work and learning new tasks	Initiative, Follow Directions
	Demonstrate consistent and punctual attendance	Arrival, Trust, Verbal, Nonverbal
	Demonstrate initiative in assuming tasks	Pursue, Establish, Maintain
	Exhibit dependability in the workplace	Predictable, Reliable, Organized
	Take and provide direction in the workplace	Leadership, Attitude
	Accept responsibility for personal decisions and actions	Listen, Demonstrate, Develop
INTEGRITY	Abide by workplace policies and procedures	Professionalism, Positive Attitude, Empathy, Listen
	Demonstrate honesty and reliability	Fairness, Respect
	Demonstrate ethical characteristics and behaviors	Diversity, Values, Flexibility
	Maintain confidentiality and integrity of sensitive company information	Hygiene, Professionalism, Positive Attitude
	Demonstrate loyalty to the company	Trust, Goals, Actions, Values
SELF-REPRESENTATION	Demonstrate appropriate dress and hygiene in the workplace	Respect, Values, Hygiene, Dress Code

<p>TIME, TASK, AND RESOURCE MANAGEMENT</p>	<p>Use language and manners suitable for the workplace</p> <p>Demonstrate polite and respectful behavior toward others</p> <p>Demonstrate personal accountability in the workplace</p> <p>Demonstrate pride in work</p> <p>Plan and follow a work schedule</p> <p>Work with minimal supervision</p> <p>Work within budgetary constraints</p>	<p>Ethics, Diversity, Conduct</p> <p>Customer Service, Manners, Motive</p> <p>Communicate, Leadership, Communication</p> <p>Ownership</p> <p>Predictability, Reliability</p> <p>Driven, Trust, Creditability</p> <p>Budgets</p>
<p>DIVERSITY AWARENESS</p>	<p>Demonstrate ability to stay on task to produce high quality deliverables on time</p> <p>Recognize diversity, discrimination, harassment, and equity</p> <p>Work well with all customers and co-workers</p> <p>Explain the benefits of diversity within the workplace</p> <p>Explain the importance of respect for feelings, values, and beliefs of others</p> <p>Identify strategies to bridge cultural/generational differences and use differing perspectives to increase overall quality of work</p>	<p>Punctual, Quality</p> <p>Diversity, Discrimination, Equality, Harassment</p> <p>Relationships</p> <p>Diversity</p> <p>Beliefs, Ethics, Values</p> <p>Cultural Differences</p>

<p>TEAMWORK</p>	<p>Illustrate techniques for eliminating gender bias and stereotyping in the workplace</p> <p>Identify ways tasks can be structured to accommodate the diverse needs of workers</p> <p>Recognize the challenges and advantages of a global workforce</p> <p>Recognize the characteristics of a team environment and conventional workplace</p>	<p>Stereotyping</p> <p>Diverse Workers</p> <p>Global Workplace</p> <p>Teamwork Skills</p>
<p>CREATIVITY AND RESOURCEFULNESS</p>	<p>Contribute to the success of the team</p> <p>Demonstrate effective team skills and evaluate their importance in the workplace (e.g., setting goals, listening, following directions, questioning, dividing work)</p> <p>Contribute new ideas</p>	<p>Contributions</p> <p>Setting goals, listening, following directions, questioning, dividing work</p> <p>Innovation</p>
<p>CUSTOMER/CLIENT SERVICE</p>	<p>Stimulate ideas by posing questions</p> <p>Value varying ideas and opinions</p> <p>Locate and verify information</p> <p>Recognize the importance of and demonstrate how to properly acknowledge customers/clients</p> <p>Identify and address needs of customers/clients</p> <p>Provide helpful, courteous, and knowledgeable service</p>	<p>Ideas, Critical Thinking</p> <p>Listening, Leadership</p> <p>Locating Information</p> <p>Customer Skills</p> <p>Personalized Services</p> <p>Pleasant, Courteous</p>

<p>ORGANIZATIONS, SYSTEMS, AND CLIMATES</p>	<p>Identify appropriate channels of communication with customers/clients (e.g., phone call, face-to-face, e-mail, website)</p>	<p>Setting goals, listening, following directions, questioning, dividing work</p>
<p>JOB ACQUISITION AND ADVANCEMENT</p>	<p>Identify techniques to seek and use customer/client feedback to improve company services</p> <p>Recognize the relationship between customer/client satisfaction and company success</p> <p>Define profit and evaluates the cost of conducting business</p> <p>Identify "big picture" issues in conducting business</p> <p>Identify role in fulfilling the mission of the workplace</p> <p>Identify the rights of workers (e.g., adult and child labor laws and other equal employment opportunity laws)</p> <p>Recognize the chain of command, organizational flow chart system, and hierarchy of management within an organization</p> <p>Recognize the importance of maintaining a job and pursuing a career</p> <p>Define jobs associated with a specific career path or profession</p> <p>Identify and seek various job opportunities (e.g., volunteerism, internships, co-op, part-time/full-time</p>	<p>Verbal and Nonverbal Communication</p> <p>Customer Satisfaction</p> <p>Profit/Loss Ratio</p> <p>Big Picture</p> <p>Workplace Mission</p> <p>Adult and child labor laws and other equal employment opportunity laws</p> <p>Chain of Command</p> <p>Employability Skills</p> <p>Career Pathways</p> <p>Volunteerism, internships, co-op, part-time/full-time employment</p>

<p>LIFELONG LEARNING</p>	<p>employment)</p> <p>Prepare a resume, letter of application, and job application</p> <p>Prepare for a job interview</p> <p>Participate in a job interview</p> <p>Explain the proper procedure for leaving a job</p> <p>Acquire current and emerging industry-related information</p> <p>Demonstrate commitment to learning as a life-long process and recognize learning opportunities</p> <p>Seek and capitalize on self-improvement opportunities</p> <p>Discuss the importance of flexible career planning and career self-management</p>	<p>Resume, Job Application, Business Letter</p> <p>Research company, highlight personal strengths, prepare questions, set-up a mock interview, dress appropriately</p> <p>Two Week Notice</p> <p>Industry Information</p> <p>Life Long Learning</p> <p>Self Image</p> <p>Flexibility, Career Management</p>
<p>JOB SPECIFIC TECHNOLOGIES</p>	<p>Employ leadership skills to achieve workplace objectives</p> <p>Recognize the importance of job performance evaluation and coaching as it relates to career advancement</p> <p>Accept and provide constructive criticism</p>	<p>Personal vision, adaptability, change, shared vision</p> <p>Evaluations</p> <p>Constructive Criticism</p>
<p>HEALTH AND SAFETY</p>	<p>Describe the impact of the global economy on jobs and careers</p>	<p>Global Economy</p>

	Identify the value of new technologies and their impact on driving continuous change and the need for life-long learning	Life Long Learning
	Research and identify emerging technologies for specific careers	Emerging Technologies
	Select appropriate technological resources to accomplish work	Technology resources
	Assume responsibility for safety of self and others	Workplace Safety
	Follow safety guidelines in the workplace	Workplace Safety
	Manage personal health and wellness	Personal Wellness

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School: High School	Subject: Agriculture-Horticulture	Grade: 9-12
Benchmark Assessment 3		
Instructional Timeline: 12 Weeks		
Topic(s): Horticulture Occupational Standards		
Kentucky Core Academic Standards	Learning Targets (I Can Statements)	Key Vocabulary
DEVELOP AND IMPLEMENT A CROP MANAGEMENT PLAN FOR A GIVEN GOAL THAT ACCOUNTS FOR ENVIROMENTAL FACTORS	Describe the proper methods to collect soil samples	Collecting Soil Samples
	Analyze fertility and pH based on soil sample results	Fertility, PH
	Analyze fertility and pH based on water sample results	Fertility, PH
	Analyze site according to soil type, slope, and drainage	Slope, Soil Type
	Differentiate the function of various growing media components	Growing Medias
	Determine the optimal air, temperature, and water conditions for plant growth	Plant Growth Requirements
	Describe plant responses to light color, intensity and duration	Light Intensity, Light Duration
APPLY THE PRINCIPLES OF CLASSIFICATION, PLANT ANATOMY AND PLANT PHYSIOLOGY TO PLANT PRODUCTION AND MANAGEMENT	Explain systems used to classify plants	Plant Classifications
	Describe the components, types, and functions of plant roots	Taproot, Fibrous Roots, Adventitious Roots
	Describe the components, types, and functions of plant stems	Herbaceous, Woody

PROPAGATE, CULTURE AND HARVEST PLANTS AND PLANT PRODUCTS BASED ON CURRENT INDUSTRY	Describe the components, types, and functions of plant leaves	Leaf Margins, Petiole
	Describe the components, types, and functions of plant flowers	Fruit and Seeds
	Differentiate sexual and asexual reproduction in plants	Sexual, Asexual
	Analyze the life cycle of plant growth/development from seed to seed	Annual, Biannual, Perennial
	Explain requirements necessary for photosynthesis to occur and identify the products and byproducts of photosynthesis	Photosynthesis
	Explain factors that affect cellular respiration and identify the products and byproducts of cellular respiration	Respiration
	Explain the importance of equipment cleaning/sanitation in horticulture crop production	Cleaning and Sanitation
	Describe processes for servicing equipment according to manufacturer's recommendations	Owner's Manual
	Compare and contrast methods of plant propagation	Tissue culture, Grafting, Layering, Cutting, Stolonizing
Differentiate various watering technologies and methods	Irrigation	
Determine proper techniques to control and manage plant growth through mechanical, cultural, and chemical means	Mechanical, Chemical	

	Predict plant responses to plant growth regulators and different forms of tropism	Growth Regulators
	Examine the importance of macronutrients and micronutrients to plant growth	Macronutrients, Micronutrients
	Identify major local weeds, insect pests and infectious and noninfectious plant diseases in horticultural crops	Infectious and Noninfectious Diseases
	Predict pest and diseases problems based on environmental conditions and life cycles	Weeds, Fungus, Insects, Rodents
	Outline pest control strategies associated with integrated pest management	Herbicides, Fungicides, Insecticides
APPLY PRINCIPLES OF DESIGN IN PLANT SYSTEMS TO ENHANCE THE ENVIROMENT (E.G.,FLORAL , FOREST, LANDSCAPE, FARM)	Explain safe handling and application of chemicals	Personal Protective Equipment
	Describe the purpose of plant patents in the agricultural industry	Plant Patens
	Generalize how GMO's impact the horticulture industry	Growth Modified Organisms
	Explain design elements of line, form, texture and color and express the visual effect each has on the viewer	Art , Color
	Discuss the applications of art in agriculture/horticulture	Landscape Principles
EFFECTIVIELY UTILIZE	Discuss how imports and exports impact the	Imports, Exports

<p>BUSINESS/MARKETING STRATEGIES TO DEVELOP A SUCCESSFUL OPERATON</p>	<p>horticulture markets in the US and abroad</p> <p>Interpret how horticulture crop production varies based on geographic location within Kentucky and the US, and economic impact therein</p> <p>Distinguish roles and responsibilities of state and federal government agencies as they impact horticulture businesses</p> <p>Examine the impact of environmental issues on horticulture production</p> <p>Assess methods to determine target audience and products for a horticulture business</p> <p>Outline the types of fixed and variable costs in horticulture production</p> <p>Develop production, maintenance and harvest schedules for horticulture crops</p>	<p>Hardiness Zones</p> <p>USDA, EPA</p> <p>Surface or ground water, government regulations, chemical residue, runoff, water testing</p> <p>Expenditures</p> <p>Crop Timelines</p>
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