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# Horticulture Lesson Plan Library

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## UNIT A: HORTICULTURAL SCIENCE

### 1. Exploring the Horticulture Industry

Lesson 1 — Understanding Horticulture

Lesson 2 — Determining the Importance of the Horticulture Industry

Lesson 3 — Understanding Environmental Impacts of Horticulture

Lesson 4 — Exploring Career Opportunities in Horticulture

Lesson 5 — Practicing Horticulture Safety

### 2. Plant Anatomy and Physiology

Lesson 1 — Classifying Ornamental Plants

Lesson 2 — Understanding Root Anatomy

Lesson 3 — Understanding Stem Anatomy

Lesson 4 — Understanding Leaf Anatomy and Morphology

Lesson 5 — Understanding Flower Anatomy

Lesson 6 — Understanding Plant Physiology

Lesson 7 — Understanding Light, Temperature, Air, and Water Effects on Plant Growth

Lesson 8 — Understanding Plant Growth Regulators

### 3. Plant Propagation

Lesson 1 — Understanding Sexual Reproduction

Lesson 2 — Propagating Plants Sexually

Lesson 3 — Propagating Plants by Cuttings

Lesson 4 — Propagating Plants by Division, Separation, and Layering

Lesson 5 — Propagating Plants by Grafting and Budding

Lesson 6 — Propagating Plants by Tissue Culture

#### **4. Growing Media, Nutrients, and Fertilizers**

- Lesson 1 — Understanding Properties of Growing Media
- Lesson 2 — Understanding Growing Media Components
- Lesson 3 — Supplying Nutrients to Floriculture Crops
- Lesson 4 — Determining the Nature of Soil
- Lesson 5 — Understanding Soil Texture and Structure
- Lesson 6 — Explaining A Soil Profile
- Lesson 7 — Understanding Moisture Holding Capacity
- Lesson 8 — Understanding Soil Degradation
- Lesson 9 — Understanding Soil Erosion and Management Practices

#### **5. Integrated Pest Management**

- Lesson 1 — Understanding Integrated Pest Management
- Lesson 2 — Determining the Kinds of Pesticides
- Lesson 3 — Using Pesticides Safely
- Lesson 4 — Interpreting Pesticide Labels
- Lesson 5 — Applying Pesticides
- Lesson 6 — Managing Environmental Impact of Pesticides
- Lesson 7 — Identifying and Managing Plant Pests and Diseases in the Greenhouse
- Lesson 8 — Identifying and Managing Plant Pests and Diseases in the Landscape
- Lesson 9 — Identifying and Managing Plant Pests and Diseases in Fruits and Vegetables

#### **6. Hydroponics**

- Lesson 1 — Understanding Hydroponics (Types of Systems)

## **UNIT B: FLORICULTURE**

#### **1. Greenhouse Crop Production**

- Lesson 1 — Exploring Greenhouse Structures
- Lesson 2 — Controlling the Greenhouse Climate
- Lesson 3 — Using Automated Systems in the Greenhouse
- Lesson 4 — Growing Poinsettias
- Lesson 5 — Growing Potted Chrysanthemums
- Lesson 6 — Growing Minor Potted Flowering Crops

- Lesson 7 — Forcing Easter Lilies
- Lesson 8 — Growing and Forcing Bulbs, Corms, and Tubers
- Lesson 9 — Growing Foliage Plants
- Lesson 10 — Growing Bedding Plants
- Lesson 11 — Growing Potted Perennials
- Lesson 12 — Managing the Greenhouse Business

## **2. Floral Design**

- Lesson 1 — Exploring the International Flower Market ( Include U.S.)
- Lesson 2 — Caring for Fresh Flowers and Foliage
- Lesson 3 — Understanding the Principles of Floral Design
- Lesson 4 — Understanding the Design Elements
- Lesson 5 — Designing Corsages and Boutonnieres
- Lesson 6 — Designing Basic Floral Work
- Lesson 7 — Designing Centerpieces and Holiday Arrangements
- Lesson 8 — Designing Wedding Pieces
- Lesson 9 — Designing Sympathy Arrangements
- Lesson 10 — Using Everlasting Flowers
- Lesson 11 — Pricing Floral Design Work
- Lesson 12 — Managing the Floral Shop

## **3. Interior Plantscaping**

- Lesson 1 — Installing Interior Plantscapes
- Lesson 2 — Maintaining Interior Plantscapes

# **Unit C. NURSERY, LANDSCAPING, AND GARDENING**

## **1. Nursery Production**

- Lesson 1 — Understanding Nursery Production Facilities
- Lesson 2 — Producing Nursery Crops
- Lesson 3 — Packaging Nursery Crops
- Lesson 4 — Managing the Nursery Business

## **2. Residential Landscape Design**

Lesson 1 — Analyzing the Residential Landscape

Lesson 2 — Designing the Landscape Areas

Lesson 3 — Beginning the Design Process

Lesson 4 — Applying the Principles of Art to the Landscape

Lesson 5 — Using Annuals and Perennials in the Landscape

Lesson 6 — Choosing Plants for the Landscape

Lesson 7 — Putting the Plan on Paper

Lesson 8 — Pricing the Landscape Plan

Lesson 9 — Managing the Landscape Business

## **3. Landscape Installation**

Lesson 1 — Preparing the Landscape Site

Lesson 2 — Installing and Maintaining Irrigation Systems

Lesson 3 — Installing Woody Landscape Plants, Ground Covers, Perennials, and Annuals

Lesson 4 — Selecting and Establishing Turfgrass

Lesson 5 — Installing Patios, Walks, and Decks

Lesson 6 — Installing Fences and Walls

Lesson 7 — Incorporating Lights in the Landscape

Lesson 8 — Incorporating Water Features in the Landscape

## **4. Landscape Maintenance**

Lesson 1 — Watering, Fertilizing, and Mulching Landscape Plants

Lesson 2 — Maintaining Turfgrass Areas

Lesson 3 — Pruning Landscape Plants

Lesson 4 — Pricing Landscape Maintenance Work

## **5. Fruit and Vegetable Crop Production**

Lesson 1 — Planning and Preparing a Vegetable Garden Site

Lesson 2 — Planting and Maintaining a Vegetable Garden

Lesson 3 — Growing and Maintaining Small Fruits

Lesson 4 — Growing and Maintaining Tree Fruits

## **6. Using and Maintaining Tools and Equipment**

Lesson 1 — Using Hand Tools

Lesson 2 — Using Power Tools and Small Landscape Maintenance Equipment

Lesson 3 — Identifying Large Landscape Maintenance Equipment

Lesson 4 — Maintaining Small Engines

## **UNIT D: EMPLOYABILITY IN THE HORTICULTURE INDUSTRY**

### **1. Developing Personal Skills**

Lesson 1 — Self-Understanding and Assessment

Lesson 2 — Developing Human Relations Skills in the Workplace

### **2. Developing Communication Skills**

Lesson 1 — Introduction to Communication

Lesson 2 — Understanding Effective Communication Techniques

Lesson 3 — Identifying Effective Speaking Techniques

Lesson 4 — Developing Listening Skills

Lesson 5 — Organizing and Presenting a Persuasive Message

Lesson 6 — Using Communication Skills in Appropriate Situations

### **3. Gaining Employment**

Lesson 1 — Developing Goals

Lesson 2 — Obtaining Education for a Job

Lesson 3 — Identifying Occupational Competencies

Lesson 4 — Finding a Job

Lesson 5 — Applying for a Job

Lesson 6 — Writing a Resume and Letter of Application

Lesson 7 — Succeeding in a Job Interview

Lesson 8 — Understanding Conflicts and Their Resolution

# **UNIT E: HORTICULTURAL BUSINESS MANAGEMENT**

## **1. Entrepreneurship in Horticulture**

Lesson 1 — Establishing the Horticulture Business

Lesson 2 — Financial Management in the Horticulture Business

## **2. Marketing Horticulture Products**

Lesson 1 — Selecting a Marketing Approach

Lesson 2 — Developing a Marketing Plan

Lesson 3 — Advertising and Displaying Horticulture Products

Lesson 4 — Marketing Floral Crops

Lesson 5 — Marketing the Landscape Business

Lesson 6 — Selling Floral Orders

Lesson 7 — Selling Landscape Design and Construction Work

# **UNIT F: SUPERVISED EXPERIENCE IN HORTICULTURE**

## **1. Determining Purposes and Procedures of SAE**

Lesson 1 — Determining the Benefits of an SAE

Lesson 2 — Determining the Kinds of SAE

## **2. Planning and Developing SAE Programs**

Lesson 1 — Researching Possible SAE Programs

Lesson 2 — Planning Your SAE Program

Lesson 3 — Implementing SAE Programs

## **3. Expanding My SAE**

Lesson 1 — Keeping and Using SAE Records

Lesson 2 — Making Long Range Plans for Expanding SAE Programs

# **UNIT G: DEVELOPING LEADERSHIP SKILLS IN HORTICULTURE**

## **1. Understanding the History and Organization of FFA**

Lesson 1 — Exploring the History and Organization of FFA

## **2. Recognizing Opportunities in FFA**

Lesson 1 — Discovering Opportunities in the FFA

Lesson 2 — Determining FFA Degrees, Awards, and CDEs

## **3. Developing Leadership Skills**

Lesson 1 — Understanding FFA Officer Duties and Responsibilities

Lesson 2 — Planning and Organizing an FFA meeting

## **4. Participating in Community and Government Organizations**

Lesson 1 — Understanding Youth Clubs and Organizations

Lesson 2 — Developing an Awareness for Your Community