

# Principles of Agricultural Science – Plant Scope and Sequence – Virtual

Day	Time	Discussion Items	Required for Certification**
Orientation 1 Week Before	TBA 1 Week before CI	<b>General Session:</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Host, Lead Teacher, and Participant Introductions</li> <li><input type="checkbox"/> Google Classroom</li> <li><input type="checkbox"/> Participant Documents</li> <li><input type="checkbox"/> Scope and Sequence - Logistics</li> <li><input type="checkbox"/> MyCASE Curriculum Access</li> <li><input type="checkbox"/> Materials Lists and Inventories</li> <li><input type="checkbox"/> Opening &amp; Day 1 Participant Preparation</li> </ul>	
Day 1	9:00 – 11:00 Synchronous	<ul style="list-style-type: none"> <li>• AoE: CASE Navigation: Introduction</li> <li>• Lesson 1.1 A World Without Enough Plants</li> <li>• Project 1.1.4 Growing a Business</li> <li>• Lesson 2.1 Understanding Soil Properties</li> </ul>	• Activity 2.1.1 Testing the Feel for Soil**
	11:00 – 1:00 Asynchronous	<b>Lunch</b> <ul style="list-style-type: none"> <li>• Graphical Analysis Installation and Go Direct Practice</li> <li>• Prep samples for afternoon activities including 2.1.5</li> </ul>	
	1:00 – 3:00 Synchronous	<ul style="list-style-type: none"> <li>• Activity 2.1.6 Water Colors</li> <li>• Project 2.1.7 Predicting Soil Characteristics</li> <li>• AoE: Activity vs. Problem vs. Project</li> </ul>	• Activity 2.1.5 Organic Matter's Influence**
	3:00-4:00 Asynchronous	<ul style="list-style-type: none"> <li><input type="checkbox"/> 10-minute break</li> <li><input type="checkbox"/> Day 2 Participant Preparation</li> </ul>	
Day 2	9:00 – 11:00 Synchronous	<ul style="list-style-type: none"> <li>• AoE: Concepts &amp; Performance Objectives</li> <li>• Lesson 2.2 Soil Chemistry</li> <li>• Activity 2.2.3 Salty Soil</li> </ul>	• Activity 2.2.1 What is the pH Problem?
	11:00 – 1:00 Asynchronous	<b>Lunch</b> <ul style="list-style-type: none"> <li>• Go Direct temperature and CO<sub>2</sub> gas sensor practice</li> <li>• Prep for Activity 2.2.2, Activity 6.3.1, and Activity 4.2.4</li> </ul>	
	1:00 – 3:00 Synchronous	<ul style="list-style-type: none"> <li>• Lesson 3.1 Mixing Media</li> <li>• Activity 3.1.1 Sorting out Potting Soil</li> <li>• Lesson 3.2 Hydroponics</li> </ul>	<ul style="list-style-type: none"> <li>• Activity 2.2.2 Correction of a pH Problem**</li> <li>• Activity 6.3.1 Plant Pigments**</li> </ul>

Day	Time	Discussion Items	Required for Certification**
		<ul style="list-style-type: none"> <li>• Project 3.2.3 If You Build It, They will Grow</li> </ul>	
	3:00-4:00 Asynchronous	<ul style="list-style-type: none"> <li><input type="checkbox"/> 10-minute break</li> <li><input type="checkbox"/> Day 3 Participant Preparation</li> </ul>	
Day 3	9:00 – 11:00 Synchronous	<ul style="list-style-type: none"> <li>• AoE: Teacher Notes</li> <li>• Lesson 4.1 Cells: Life's Smallest Units</li> <li>• Activity 4.1.2 Examining Cell Structure</li> <li>• Activity 4.1.3 Bound Together</li> </ul>	<ul style="list-style-type: none"> <li>• Activity 4.1.4 Cellular Respiration**</li> </ul>
	11:00 – 1:00 Asynchronous	Lunch <ul style="list-style-type: none"> <li>• Go Direct gas pressure sensor practice</li> <li>• Prep for Activity 4.2.4</li> </ul>	
	1:00 – 3:00 Synchronous	<ul style="list-style-type: none"> <li>• Lesson 4.2 The Radicle Root</li> <li>• Activity 4.2.3 Root Cell Differentiation</li> </ul>	<ul style="list-style-type: none"> <li>• Activity 4.2.4 Just Passing Through**</li> </ul>
	3:00-4:00 Asynchronous	<ul style="list-style-type: none"> <li><input type="checkbox"/> 10-minute break</li> <li><input type="checkbox"/> Day 4 Participant Preparation</li> </ul>	
Day 4	9:00 – 11:00 Synchronous	<ul style="list-style-type: none"> <li>• Lesson 4.3 Stems, Stalks, and Trunks</li> <li>• Ward's Digital Slides: Helianthus and Zea Stems</li> <li>• Activity 4.3.2 Dependable Meristems</li> <li>• Project 4.3.3 The Life of a Tree</li> </ul>	<ul style="list-style-type: none"> <li>• Activity 4.3.1 Examining Stems**</li> </ul>
	11:00 – 1:00 Asynchronous	Lunch <ul style="list-style-type: none"> <li>• Complete morning APPs and Activity 6.3.1</li> <li>• Prep for afternoon APPs including Activity 4.4.2</li> </ul>	
	1:00 – 3:00 Synchronous	<ul style="list-style-type: none"> <li>• Lesson 4.4 Leave it to Leaves</li> <li>• Project 4.4.1 Lewis and Clark Flora Journal</li> </ul>	<ul style="list-style-type: none"> <li>• Activity 4.4.2 Sugar Factory**</li> </ul>
	3:00-4:00 Asynchronous	<ul style="list-style-type: none"> <li><input type="checkbox"/> 10-minute break</li> <li><input type="checkbox"/> Day 5 Participant Preparation</li> </ul>	
Day 5	9:00 – 11:00 Synchronous	<ul style="list-style-type: none"> <li>• Lesson 4.5 Flower Power</li> <li>• Project 4.5.4 Flowers to Fruits (Anchor Assessment)</li> <li>• Lesson 5.1 Sorting Out Plants</li> <li>• Activity 5.1.2 Taxonomic Classification</li> </ul>	<ul style="list-style-type: none"> <li>• Activity 4.5.2 Flower Concept Map</li> </ul>
	11:00 – 1:00 Asynchronous	Lunch <ul style="list-style-type: none"> <li>• Rapitest Soil Test Kit Review</li> </ul>	
	1:00 – 3:00 Synchronous	<ul style="list-style-type: none"> <li>• Lesson 6.1 Plant Food</li> <li>• Activity 6.1.4 Mighty Micronutrients</li> <li>• Lesson 6.2 All Wet</li> </ul>	<ul style="list-style-type: none"> <li>• Activity 6.1.1 In Search of NPK**</li> </ul>

Day	Time	Discussion Items	Required for Certification**
		<ul style="list-style-type: none"> <li>• Activity 6.2.2 Translocation and Transpiration</li> </ul>	
	3:00-4:00 Asynchronous	<ul style="list-style-type: none"> <li><input type="checkbox"/> 10-minute break</li> <li><input type="checkbox"/> Day 6 Participant Preparation</li> <li><input type="checkbox"/> Prepare seeds for Activity 7.3.2 (germinate seeds) and prepare cultures for Activity 8.2.2</li> </ul>	
Day 6	9:00 – 11:00 Synchronous	<ul style="list-style-type: none"> <li>• AoE: APP Modalities</li> <li>• Lesson 6.3 Lighting it Up</li> <li>• Project 6.3.2 Bright Lights</li> <li>• Activity 6.3.3 Dissecting a Rainbow</li> </ul>	<ul style="list-style-type: none"> <li>• Activity 6.3.1 Plant Pigments**</li> </ul>
	11:00 – 1:00 Asynchronous	Lunch <ul style="list-style-type: none"> <li>• Complete morning APPs</li> <li>• Prep for afternoon APPs</li> </ul>	
	1:00 – 3:00 Synchronous	<ul style="list-style-type: none"> <li>• Lesson 6.4 Chilly Lilies</li> <li>• Problem 6.4.2 Forecasting Harvest</li> <li>• Lesson 7.1 Plant Genetics</li> <li>• Ward's Digital Slides: Mitosis</li> </ul>	<ul style="list-style-type: none"> <li>• Activity 7.1.1 A Closer Look at Mitosis**</li> </ul>
	3:00-4:00 Asynchronous	<ul style="list-style-type: none"> <li><input type="checkbox"/> 10-minute break</li> <li><input type="checkbox"/> Day 7 Participant Preparation</li> </ul>	
Day 7	9:00 – 11:00 Synchronous	<ul style="list-style-type: none"> <li>• AoE: Materials</li> <li>• Activity 7.1.2 Splitting Genes</li> <li>• Lesson 7.2 Pollination and Dispersion</li> <li>• Activity 7.2.1 An Egg is Not Enough</li> </ul>	<ul style="list-style-type: none"> <li>• Activity 7.1.3 Mendel's Genetic Studies**</li> </ul>
	11:00 – 1:00 Asynchronous	Lunch <ul style="list-style-type: none"> <li>• Complete morning APPs</li> <li>• Prep for afternoon APPs</li> </ul>	
	1:00 – 3:00 Synchronous	<ul style="list-style-type: none"> <li>• Lesson 7.3 Kernels of Life</li> <li>• Ward's Digital Slides: Seeds</li> <li>• Lesson 7.4 Plant Multiplication</li> </ul>	<ul style="list-style-type: none"> <li>• Activity 7.3.2 Seed Structure and Enzymes**</li> </ul>
	3:00-4:00 Asynchronous	<ul style="list-style-type: none"> <li><input type="checkbox"/> 10-minute break</li> <li><input type="checkbox"/> Find asexual propagation demonstration video(s) to use for each method in Lesson 7.4</li> <li><input type="checkbox"/> Day 8 Participant Preparation</li> </ul>	
Day 8	9:00 – 11:00 Synchronous	<ul style="list-style-type: none"> <li>• AoE: CASE Navigation-Finals Points, PD Certificates</li> <li>• Lesson 8.1 Pesky Bugs and Plants</li> <li>• Problem 8.1.2 Crop Scene Investigation</li> <li>• Lesson 8.2 Diving into Diseases</li> </ul>	<ul style="list-style-type: none"> <li>• Activity 8.2.2 Spying on Bacteria**</li> </ul>

Day	Time	Discussion Items	Required for Certification**
		<ul style="list-style-type: none"> <li>• Ward's Digital Slides: Bacteria</li> </ul>	
	11:00 – 1:00 Asynchronous	Lunch <ul style="list-style-type: none"> <li>• Complete morning APPs</li> <li>• Prep for afternoon APPs</li> <li>• Project 1.1.4 Producer's Management Guide</li> </ul>	
	1:00 – 3:00 Synchronous	<ul style="list-style-type: none"> <li>• Lesson 9.1 Tools of Plant Production</li> <li>• Lesson 9.2 Planting the Seeds of Fortune</li> <li>• Area of Emphasis: CASE Navigation -Final Points</li> </ul>	<ul style="list-style-type: none"> <li>• Problem 9.2.2 School Farm Proposal**</li> </ul>