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| **COURSE INTRODUCTION:**  The Greenhouse Operation and Management course develops a basic understanding of greenhouse techniques. The production of greenhouse crops will be used to demonstrate procedures such as plants started from cuttings, seeds, grafts, and layering. Students will manage their own crop as a greenhouse project. (CD 016765, CIP 01.0604)  Course Rationale – Agriculture encompasses the food, fiber, conservation and natural resource systems, employing over 20% of the nation’s workforce. Cutting, seeding, grafting, layering, and management of a greenhouse provide entry level and entrepreneurial opportunities for students with an interest in horticulture. |

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| **UNIT DESCRIPTION:**  Students will learn about Greenhouse business management, including planning a commercial crop and creating a marketing plan. | | | **SUGGESTED UNIT TIMELINE: 2 WEEKS**  **CLASS PERIOD (min.): 50 MINUTES** | | | | | |
| **ESSENTIAL QUESTIONS:**  1. How are greenhouse crops marketed?  2. What is involved in producing and marketing a greenhouse crop? | | | | | | | | |
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| **ESSENTIAL MEASURABLE LEARNING OBJECTIVES** | | **CCSS LEARNING GOALS (Anchor Standards/Clusters)** | | **CROSSWALK TO STANDARDS** | | | | |
| **GLEs/CLEs** | **PS** | **CCSS** | **AFNR Standards** | **DOK** |
| 1. Plan a commercial crop. | |  | |  |  | RI11-12.7  RH11-12.7  RST11-12.3  RST11-12.9  A-SSE.3  Modeling | PS.03.02.05.b  ABS.04.01.02.b  ABS.07.02.01.b | 3 |
| 1. Develop a basic marketing plan. | |  | |  |  | RI11-12.7  RH11-12.7  RST11-12.9  WHST11-12.2  A-SSE.3  Modeling | ABS.04.01.02.b  ABS.06.02.01.b  ABS.06.05.02.b  ABS.07.02.01.b  ABS.07.02.02.b | 3 |
| 1. Unit: Apply principles of greenhouse business management by generating a cost analysis and marketing plan for a greenhouse. | |  | |  |  | RI11-12.7  RH11-12.7  RST11-12.9  WHST11-12.2  A-SSE.3  Modeling | ABS.04.01.02.b  ABS.06.02.01.b  ABS.06.05.02.b  ABS.07.02.01.b1  ABS.07.02.02.b  CS.03.01.03.b | 4 |
| **ASSESSMENT DESCRIPTIONS\*: (Write a brief overview here. Identify Formative/Summative. Actual assessments will be accessed by a link to PDF file or Word doc. )**  Each student will generate a cost analysis and marketing plan for a greenhouse. The student handout includes a scenario, or the instructor may change the activity to reflect the facts and figures from the school’s greenhouse, if desired.  Assessment will be based on the overall thoroughness and accuracy of the cost analysis and marketing plan.  **\*Attach Unit Summative Assessment, including Scoring Guides/Scoring Keys/Alignment Codes and DOK Levels for all items. Label each assessment according to the unit descriptions above ( i.e., Grade Level/Course Title/Course Code, Unit #.)** | | | | | | | | |
| **Obj. #** | **INSTRUCTIONAL STRATEGIES (research-based): (Teacher Methods)** | | | | | | | |
| 1-2 | 1. Lecture, Instruction | | | | | | | |
| 1-3 | 1. Student Activity | | | | | | | |
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| **Obj. #** | **INSTRUCTIONAL ACTIVITIES: (What Students Do)** | | | | | | | |
| 1-2 | 1. Students will respond to study questions in lessons 1 and 2. | | | | | | | |
| 1-3 | 1. Students will complete “AS 7.1, Selecting Commercial Crops and Devising a Growing Schedule”; “AS 7.2, Cost Analysis of a Commercial Crop”; “AS 7.3, Plant Care After Harvest and During Marketing”; and “AS 7.4, Creating a Marketing Plan.” | | | | | | | |
|  | Additional activities that relate to the unit objective can be found under the headings “Other Activities and Strategies” and “Unit VII Activity” in the following locations: p. 400 (1) and pp. 425–427. | | | | | | | |
| **UNIT RESOURCES: (include internet addresses for linking)**   * + Ball Seed Company. Accessed January 17, 2012, from <http://www.ballseed.com/>.   + Commercial seed and plant catalogs   + “Economics and Marketing.” *The Texas Poinsettia Producers Guide*. Accessed January 17, 2012, from <http://aggie-horticulture.tamu.edu/greenhouse/nursery/guides/poinsettia/econ.html>.   + *Greenhouse Operation and Management*. University of Missouri-Columbia, Instructional Materials Laboratory, 2002.   + Hummert International. Accessed January 17, 2012, from <http://www.hummert.com/>.   + *Poinsettias*. UK Cooperative Extension Service, University of Kentucky College of Agriculture. Accessed January 17, 2012, from <http://www.uky.edu/Ag/NewCrops/introsheets/poinsettiaintro.pdf>.   + Stuppy, Inc. Accessed January 17, 2012, from <http://www.stuppy.com/>.   + Students will use additional outside sources to complete this activity. | | | | | | | | |