Team-Based Challenge Community Model

PROJECT OVERVIEW	
Team-Based Challenge Title	**Fertilizer Challenge**
Course Title	Crop Science This is a unit project used for Unit 2 in the Crop Science class. The unit is about 4 weeks long. The Unit is made up of 4 lessons: • Lesson 2.1 – Soil • Lesson 2.2 – Corn • Lesson 2.3 – Soil Fertility & Nutrients • Lesson 2.4 – Fertilizer Calculations
Industry Partner(s)	**Agronomists, soil scientists, farmers, seed professionals**
Endorsement Area	Agriculture, Food, and Natural Resources
Problem to Investigate/Scope	Analyze the soil maps and make management decisions to lead through the scenario
Project Outcomes	Create and pitch a business plan • Research plant macronutrients and record the functions in plants, deficiency symptoms, and sources for each. • Interpret the soil maps • Determine management practices and calculate the impact of the decision • Use mathematical formulas to solve problems regarding fertilizer analyses, rates, and cost comparisons.

PROJECT OUTLINE			
Stage:	**Topics/Events:**	**Timeline:**	**Deliverables:**
Pre-Load	Education on fertilizer, soil, soil testing, soil mapping.	4 weeks before Day 1	• Conducting soil samples • How to read a soil map • Understanding common forms of fertilizer & application methods • Calculate fertilizer needs using scenarios
Preparation	- Set Expectations - Skill Development Part 1	Day 1	
Project Plan	- Refine problem/question - Develop an approach to addressing	Day 2	Project Plan • Interpret maps • Determine fertilizer needs
Project Execution	- Research - Status Update #1 - Skill Development Part 2 - Status Update #2	Day 3	Status updates to Industry Mentor • Begin simulation with determining nutrient management plan
Project Presentation	- Prep project Report - Prep project Presentation	Day 5	Draft presentation to Industry Mentor • Complete simulation and adjustments
Close Out	- Skill Development Part 3 - Networking - Feedback from peers/ industry mentors	Day 8	Final presentation • Calculate and report on results

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This resource was created by Education Systems Center at Northern Illinois University.

The Illinois Work-Based Learning Innovation Network (I-WIN) is designed to help employers, educators, and students leverage innovative models for scaling high-quality work-based learning opportunities in school districts and community colleges across the State. This network explores ways to create equitable opportunities for students through both in-person and virtual learning. For more information on I-WIN and additional work-based learning resources, visit edsystemsniu.org/i-win/.

To access a resource bank of Team-Based Challenge templates, visit edsystemsniu.org/i-win-resources/.