Problem Solving Scenario: Garage Design

Business name: Pickering Associates
Position/Department of speaker: Nick Arnold/ Architectural Designer
Grade level and subject: Grade 3 math
Standards and skills addressed:
3.MD.7b Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.
3. MD. 7d Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real-world problems; using arrays to solve multiplication problems
Career Cluster: Architecture and Construction
Problem Description:

You are an architect who has been hired to design a garage to add onto an old house that was not originally built with one. What is the composite area of the house and addition?

Things to be considered or defined for the solution:

What are the dimensions for the original house? What are the dimensions for the addition? What mathematical formula and operations will help us solve for the composite area?

16 Career Clusters:

Agriculture, Food, Natural Resources
Architecture and Construction
Arts, A/V technology & Communications
Business Management & Administration
Education & Training
Finance
Government & Public Administration
Health Science
Hospitality & Tourism
Human Services
Information Technology
Law, Public Safety, Corrections & Security
Manufacturing
Marketing
Science, Technology, Engineering & Math
Transportation, Distribution, & Logistics