**2. Lesson Plan for Linear Programming Class Using Understanding by Design, Grant Wiggins and Jay McTighe**

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| *Begin with a hook problem*. | Use your textbook. Find an application problem on maximizing the interest from investments. Money always makes a good hook! |
| *Introduce essential questions*. | Discuss how math can help us make the best of the choices available to us, based on our goals or objectives and on the constraints or limits placed on our choices. |
| *Preview the culminating performance task*. | Explain that Linear Programming will be used to solve the application. |
| *Provide direct instruction and practice on the basics* | Describe on the Corner Point Theorem.  Find basic (non-application) problems in the textbook.  Demonstrate one basic problem.  Have students practice two basic problems individually. |
| *Provide a small-group application*. | Find application problems in the textbook.  Demonstrate one application problem e.g. minimizing cost in manufacturing problem.  Assign students to groups of three determined by the instructor. Have students change seats as necessary.  Have students practice one application problem as a group. |
| *Revisit the original unit hook problem*. | Have student groups work together on the original “hook” problem.  Turn in one solution per group for grade. |