

**TAP Coaching PLC, 2014-15  
LESSON PLAN**

<b>Lesson Title</b>	<b>Program of Study and CIP Code</b>
Lights, Camera, Set Design	Masonry 46.0101
<b>What unit is this lesson plan part of (if applicable)?</b>	
Unit – Set Design - How to layout and price a wall set.	
<b>Student Level (if applicable)</b>	
Level 3 for entire lesson – Some parts of lesson can be used for Levels 1 and 2	
<b>Lesson Objective or Task</b>	
Students will be able to design a movie set based upon written specifications, obtain a material list from this drawing, and create a basic bid from materials and labor needed from the project.	
<b>Lesson Duration</b>	
5 – 40 minute theory lesson periods	
<b>Materials Needed</b>	
Graph Paper, Calculators, Journal/Project Folder	
<b>Safety</b>	
Since this is a theory based lesson, work will be done in the theory room. Some research and demonstration may be conducted in the shop, where safety goggles may need to be worn.	
<b>Essential Question(s)</b>	
How does a masonry foreman accurately design a set, estimate materials, and create a bid that allows the business to maintain profitability?	
<b>Assessment</b>	
Formative: During each class period, students will create a journal entry documenting the steps and challenges for that day on the project.	
Summative: Project: Drawing/Material list/Quote with Rubric Math Assessment on basic math concepts – “Basic Garage” assessment	

<b>Standards Addressed</b>	
<b>Math Standards</b>	
<p><b>CC.2.1.HS.F.2 Numbers and Operations</b> Apply properties of rational and irrational numbers to solve real world or mathematical problems.</p> <p><b>CC.2.1.HS.F.4 Numbers and Operations</b> Use units as a way to understand problems and to guide the solution of multi-step problems.</p> <p><b>CC.2.3.HS.A.14 Geometry</b> Apply geometric concepts to model and solve real world problems.</p>	
<b>Language Arts Standards</b>	
<p><b>CC.1.2.11–12.G Reading Informational Text</b> Integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a question or solve a problem.</p> <p><b>Also, 21<sup>st</sup> Century Skills</b> applies to this lesson include critical thinking and collaboration skills.</p>	
<b>Vocabulary Introduced/Reviewed</b>	
Quote, Scale, Mortar, Sand, Bricks, Square footage, labor rate,	
<b>Accommodations / Adaptations</b>	
There can be adaptations in this where students can be allowed to use the required material amount sheets and others who have already memorized the sheets can go by memory. Also, groups who need additional help can be helped more by instructor. Students can also be given an easier project to include all the same elements but use numbers that are easy to work with,	
<b>Lesson Steps / Description</b>	
<p><b>Day 1: Level 3:</b> Teams will choose the project that they want to work on as a group. We will review the scale drawing idea. All groups will use <math>\frac{1}{4}'' = 1</math> ft. This will create a larger visual for the students to see their results. They can also create some designs based on the set design they chose. Scale drawings will begin and be completed in class that day.</p> <p><b>Level 1 and 2:</b> We will just work on scale drawings together of the Mansion. This is a good way to lead into the full lesson as seniors.</p> <p><b>Day 2:</b> Based on the scale drawings, students will calculate the square footage of their set. They can also begin to estimate the block needed. ( 1.5 block per square foot) Finally, they can calculate the total cost of the block. (Each block = \$2.50) A short exit pass will be given to check basic understanding of scale and square footage.</p> <p><b>Day 3:</b> Students will continue on the calculation sheets for sand, brick, and mortar needed. Each calculation should be completed on a separate sheet per group.</p> <p><b>Day 4:</b> Transfer all calculations on the quote sheet. Labor will be a number given by the instructor based on the project size. *** This calculation could be done based on employees used and rate per hour, but that has been deemed a lesson in itself.</p> <p><b>Day 5:</b> Calculate sales tax on project.</p> <p>*** An assessment will be completed at the end of this unit individually. It will be a smaller scale to see if they can complete it in a timelier manner now that they have all the pieces.</p>	
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