**Activity Plan**

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| **Activity Title** | **DMAIC and Lean Production LEGO Activity** | |  |  |
| **Learning Outcome(s)** | Learn and apply the process of problem solving techniques using the DMAIC process for the efficient production of Lego structures. This is also designed to demonstrate production lines and efficient work methods. | | | |
| **Activity Length** | 2 hours |  | **Date** |  |
| **Key Stage(s)** |  | **Year(s)** | **Class Organisation** | Max 4 groups of 7  Min 2 groups of 7 |
| **Resources needed** | Mentor (doculope) pack & including A3 print outs of laminated worker responsibilities, ‘nirvana’ layout, financial report, cowboy oil process  4 x Group pack (doculopes)  Laptop and projector for Power point – Scoring excel template  Lego (all 6 different colours)  Mentors – 1 per group and 1 time keeper/ excel score sheet inputter  Large brainstorming (A3) sticky note paper OR printed placards if done. | | |  |
| **Resources needed (to be provided by school)** | Overhead projector  Screen or blank wall  5 tables per group of 6 – 7 people | |  |  |
| **Space required** | Class room that can accommodate min 4 rows of desks with 2 m in-between. | | |  |
| **Activity Plan / Introduction** | 30 min introduction to DMAIC and efficient production.  1 hour of Lego activity  30 min for logistics, moving tables and settling people. | | | |
| **Main Activity** | REFER NEXT PAGE | | | |
| **Summary** |  | | | |
| **Extension Activities** |  | | | |
| **Assessment Criteria** | Concept of pulling not pushing  Do students have a better understanding of the Civil Engineering profession? | | | |

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