

| Careers in Action | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Summer Teacher Internship/Lesson Plan Writing Project | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rogelio Solis | | Math/Algebra I | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Teacher's Name | | Course/Subject | | Date(s)/Time | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| This lesson has been endorsed by Theresa Allen, Controller, McAllen Construction. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Content | Objective(s) The students will evaluate a bridge prototype examining its parts and using the volume to study real world application of mathematical concepts. | | Career Concentration(s) <input type="checkbox"/> Agricultural Science <input type="checkbox"/> Human Dev., Management & Services <input type="checkbox"/> Art, Communications & Media <input checked="" type="checkbox"/> Industrial and Engineering <input type="checkbox"/> Business & Marketing <input type="checkbox"/> Personal and Protective Services <input type="checkbox"/> Health Science Technology | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | TEKS Reference: | | 8.7B, 8.8B, 8.8C, 8.10B | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | TAKS Reference: | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Process | Focus/Anticipatory Set The teacher will use a hard hat and vest to get students interested in the activity. The focus is on construction and how mathematics is used throughout the entire process of it. | | Bloom's Taxonomy in Lesson <input type="checkbox"/> Knowledge <input type="checkbox"/> Comprehension <input type="checkbox"/> Application <input type="checkbox"/> Analysis <input type="checkbox"/> Synthesis <input checked="" type="checkbox"/> Evaluation | Multiple Intelligences <input type="checkbox"/> Linguistic <input checked="" type="checkbox"/> Logical/Math <input type="checkbox"/> Musical <input checked="" type="checkbox"/> Spatial <input checked="" type="checkbox"/> Bodily-Kinesthetic <input type="checkbox"/> Intrapersonal <input type="checkbox"/> Interpersonal <input type="checkbox"/> Naturalist | <table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th colspan="2"></th> <th colspan="6">SCANS</th> </tr> <tr> <th colspan="2"></th> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>F</th> </tr> </thead> <tbody> <tr> <td rowspan="3" style="writing-mode: vertical-rl; transform: rotate(180deg);">Foundation</td> <td>1</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>2</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>3</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td rowspan="5" style="writing-mode: vertical-rl; transform: rotate(180deg);">Competencies</td> <td colspan="2"></td> <th>A</th> <th>B</th> <th>C</th> <th>D</th> <th>E</th> <th>F</th> </tr> <tr> <td>1</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>2</td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>3</td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>4</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>5</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table> | | | | SCANS | | | | | | | | A | B | C | D | E | F | Foundation | 1 | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2 | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Competencies | | | A | B | C | D | E | F | 1 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 3 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 4 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 5 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
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| Competencies | | | A | B | C | D | E | F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Relevance/Connection to Workplace Based on the internship experience from McAllen Construction, geometric concepts and properties will be interpreted when solving problems in the field of architecture and engineering. The students will use geometry to model and describe the physical world. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Instructional Methodology (Activities) <input type="checkbox"/> Lecture <input checked="" type="checkbox"/> Class/Group Discussion <input checked="" type="checkbox"/> Teacher Modeling <input type="checkbox"/> Question/Answer <input checked="" type="checkbox"/> Media Presentation <input checked="" type="checkbox"/> Guided Practice <input type="checkbox"/> Small Group <input checked="" type="checkbox"/> Independent Practice | | Instructional Material(s) Project Handbook | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Detail(s) of Instructional Methodology (Activities) The Project Handbook requires of the student to survey the composition of a bridge and to deduce the formation of it to weights and to costs. The students will generate conjectures within the composition of the bridge. Several "what ifs" must be answered in order to ensure that a proper and safe bridge is constructed for the public. The students will produce a plan on the most efficient way to build a safe, cost-saving bridge. | | Materials/Resources Project Handbook Hard Hat Vest | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Accommodations Allow peer tutoring. Accommodations and modifications will be applied as needed. | | Use of Technology Powerpoint presentation EiKi Machine AUTOCAD | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Product | Assessment <input checked="" type="checkbox"/> Teacher Evaluation <input checked="" type="checkbox"/> Peer/Self Evaluation <input type="checkbox"/> Employer Evaluation <input type="checkbox"/> Written/Oral Presentation <input type="checkbox"/> Test/Quiz <input type="checkbox"/> Others; _____ | | Bloom's Taxonomy in Assessment <input type="checkbox"/> Knowledge <input type="checkbox"/> Analysis <input type="checkbox"/> Comprehension <input type="checkbox"/> Synthesis <input type="checkbox"/> Application <input checked="" type="checkbox"/> Evaluation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Reteach Activity/Homework A field trip will be arranged for students to see first-hand the composition of a bridge. A formula chart will be encouraged and so will a calculator. The focus is on the conceptualization of geometric ideas. | | Lesson Closure Reiterate the importance of math in the real world, especially in the construction business. Everything that is done for the survival of humanity depends on math. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

