

Careers in Action

Summer Teacher Internship/Lesson Plan Writing Project

This lesson has been endorsed by Adolfo Navarro, Fleet Manager, McAllen Construction Inc.

Alex Salinas	Geometry	Summer 2007
Teacher's Name	Course/Subject	Date(s)/Time

Content	Objective(s)	Career Concentration(s)	
	TLW distinguish various angles in a diagram as angles of elevation, depression or neither given the a real world image with labeled angles and distances. The learner must get 3 out of 4 questions correct in the evaluation to ensure mastery	<input type="checkbox"/> Agricultural Science <input type="checkbox"/> Art, Communications & Media <input type="checkbox"/> Business & Marketing <input type="checkbox"/> Health Science Technology	<input type="checkbox"/> Human Dev., Management & Services <input checked="" type="checkbox"/> Industrial and Engineering <input type="checkbox"/> Personal and Protective Services

TEKS Reference: G.11.C Similarity and the geometry of shapes...apply...triangle similarity relationships, such as...trigonometric ratios. G.5.D Geometric patterns identify and apply patterns from right triangles to solve meaningful problems

TAKS Reference: Obj 6

Process	Focus/Anticipatory Set	Bloom's Taxonomy in Lesson	Multiple Intelligences	SCANS						
	Show photos of a Survey Crew at work and instigate discussion of what they are doing and why they are there.			Foundation		A	B	C	D	E
Relevance/Connection to Workplace	The Survey Crew uses equipment to take crucial distance and elevation measurements. Many times they are the first to arrive and the last to leave the construction set. Although the survey crew does calculate distance manually the equipment does internal calculations and displays the distance.	Competencies			A	B	C	D	E	F
			1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			2	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Instructional Methodology (Activities)	Instructional Material(s)
<input type="checkbox"/> Lecture <input type="checkbox"/> Teacher Modeling <input type="checkbox"/> Media Presentation <input type="checkbox"/> Small Group <input type="checkbox"/> Class/Group Discussion <input type="checkbox"/> Question/Answer <input type="checkbox"/> Guided Practice <input type="checkbox"/> Independent Practice	Teachers notes, Holt Geometry materials, Concrete Questions, Quiz

Detail(s) of Instructional Methodology (Activities)	Materials/Resources
Review how to identify pairs of alternate interior angles and that they have the same measure when formed by parallel lines. Remind students how to find a side length in a right triangle when one acute angle measure and another side length are known $\tan \theta = \frac{\text{vertical length}}{\text{horizontal length}}$ Define: angle of elevation and angle of depression. Use the root word of elevation and depression to remember the difference between them. In section 8-4 work out examples 1-4 on pg 544 from Holt Geometry book. Guided practice problems 1-9, students will work in pares to solve problems and answer each others questions. Feed back for students at various point of the instruction will be ensured.	TAKS Formula Sheet, Holt Geometry book, Internet

Use of Technology
Eiki projector, Document Camera, TI-83 Calculator, Classroom computer

Accommodations
Modifications for the special education and LEP students. Spanish resources and peer tutoring for the ESL students.

Product	Assessment	Bloom's Taxonomy in Assessment	
	<input checked="" type="checkbox"/> Teacher Evaluation <input type="checkbox"/> Employer Evaluation <input checked="" type="checkbox"/> Test/Quiz <input checked="" type="checkbox"/> Peer/Self Evaluation <input type="checkbox"/> Written/Oral Presentation <input type="checkbox"/> Others; _____	<input type="checkbox"/> Knowledge <input type="checkbox"/> Comprehension <input checked="" type="checkbox"/> Application	<input checked="" type="checkbox"/> Analysis <input type="checkbox"/> Synthesis <input type="checkbox"/> Evaluation
	Reteach Activity/Homework	Lesson Closure	
	Ask students to solve problems on pg 547 problems 10-26 show all work and calculations	Ask students to review the classification of angles as angles of depression or angles of elevation. Also how are they used to indirectly find the distance between objects	