

# Careers in Action

## Summer Teacher Internship/Lesson Plan Writing Project

This lesson has been endorsed by Michelle Quiroz, Industrial Engineer, Motorola Inc.

MILA M. OBNIAL	9th, ALGEBRA 1	Summer 2007
<b>Teacher's Name</b>	<b>Course/Subject</b>	<b>Date(s)/Time</b>

<b>Content</b>	<b>Objective(s)</b>	<b>Career Concentration(s)</b>
	Students will develop the concept of slope as a rate of change and determine slopes in situations using the "Inventory Accuracy PPM" graphical representation from Motorola, Inc. from week ending 3-17 to week ending 5-5. (where: PPM=Parts per Million)	<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:** A(c)((2)A,B,F

**TAKS Reference:** Objective 3 - Linear Functions

<b>Process</b>	<b>Focus/Anticipatory Set</b>	<b>Bloom's Taxonomy in Lesson</b>	<b>Multiple Intelligences</b>	<b>SCANS</b>						
	What happens if the warehouse racks with 142" length is flat? Would it be so steep like rise = run? Why and why not? What should the slope be to ensure a more efficient inventory process?	<input type="checkbox"/> Knowledge <input type="checkbox"/> Comprehension <input type="checkbox"/> Application <input checked="" type="checkbox"/> Analysis <input type="checkbox"/> Synthesis <input checked="" type="checkbox"/> Evaluation	<input checked="" 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 checked="" type="checkbox"/> Interpersonal <input type="checkbox"/> Naturalist	<b>Foundation</b>	A	B	C	D	E	F
<b>Relevance/Connection to Workplace</b>	Motorola, Inc, being a Six Sigma distribution facility, maintains a warehouse management solution that aims to process all materials and ensures accurate inventory system to provide excellent and swift response to customer requirements.		<b>Competencies</b>	1	2	3	4	5		

**Instructional Methodology (Activities)**

- |                                                        |                                                            |
|--------------------------------------------------------|------------------------------------------------------------|
| <input type="checkbox"/> Lecture                       | <input checked="" type="checkbox"/> Class/Group Discussion |
| <input checked="" type="checkbox"/> Teacher Modeling   | <input checked="" type="checkbox"/> Question/Answer        |
| <input checked="" type="checkbox"/> Media Presentation | <input checked="" type="checkbox"/> Guided Practice        |
| <input checked="" type="checkbox"/> Small Group        | <input checked="" type="checkbox"/> Independent Practice   |

**Instructional Material(s)**

Graphical representation of the Inventory Accuracy Parts Per Million; Video clips/photos showing some of the inventory processes used at Motorola facility including the electronic devices used in material inventory/picking.

**Detail(s) of Instructional Methodology (Activities)**

Teacher will present video clips/ photos of the assembly line showing inventory process. Using the graphical representation as the model, interpret the relevance of the graph with the company process, then calculate the values of slopes of the 1st and 5th pairs of coordinates. Students will be grouped by three and asked to estimate the slopes on the periods indicated. Present a real -life consumer application showing rate of change as a slope.

**Materials/Resources**

"Consumer Application": Algebra book by Holt, Agile Mind topics 9 and 10, Graphing calculator, LCD Projector, Computer, graphing paper, ruler, sets of books( for an activity)

**Use of Technology**

Graphing calculator, LCD projector, computer

**Accommodations**

Modifications for the special education, 504 and LEP students will be based on the individual IEP.

<b>Product</b>	<b>Assessment</b>	<b>Bloom's Taxonomy in Assessment</b>
	<input type="checkbox"/> Teacher Evaluation <input type="checkbox"/> Employer Evaluation <input checked="" type="checkbox"/> Test/Quiz <input checked="" type="checkbox"/> Peer/Self Evaluation <input checked="" type="checkbox"/> Written/Oral Presentation <input type="checkbox"/> Others; _____	<input type="checkbox"/> Knowledge <input type="checkbox"/> Comprehension <input type="checkbox"/> Application <input checked="" type="checkbox"/> Analysis <input checked="" type="checkbox"/> Synthesis <input checked="" type="checkbox"/> Evaluation
<b>Product</b>	<b>Reteach Activity/Homework</b>	<b>Lesson Closure</b>
	Using sets of books, and 2 rulers per group of 3-4 members, students will calculate the slope on 2 situations: (a)fixed rise (no of books); (b)fixed run (distance from book). Present layout for modeling. Note: slope,m,=rise/run	Ask students to conclude their interpretation of the different slopes: Positive, negative, zero, undefined slopes.