

rmation	[Lesson Title] Analyzing Data and Graphs for Careers		TEACHER NAME Shannon Pelsnik	PROGRAM NAME Parma City Schools		
Program Information	Essential Compon	[Unit Title] ent #3: Individual Education, Career and Li Plans	NRS EFL(s) fe 2 - 4	TIME FRAME 180 minutes		
	ABE/ASE Standards – Mathematics					
	Numbers (N)	Algebra (A)	Geometry (G)	Data (D)		
Instruction	Numbers and Operation	Operations and Algebraic Thinking	Geometric Shapes and Figures	Measurement and Data		
	The Number System	Expressions and Equations	Congruence	Statistics and Probability D.4.1		
	Ratios and Proportional Relationships	Functions	Similarity, Right Triangles. And Trigonometry	Benchmarks identified in REL are priority benchmarks. To view a complete list of priority		
	Number and Quantity		Geometric Measurement and Dimensions	benchmarks and related Ohio ABLE lesson plans, please see the <u>Curriculum Alignments</u> located on the <u>Teacher</u>		
			Modeling with Geometry	Resource Center (TRC).		
	Mathematical Practices (MP)					
	Make sense of p	roblems and persevere in solving them. (MP.1) ■ Use appr	opriate tools strategically. (MP.5)		

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Reason abstractly and quantitatively. (MP.2)

	Construct viable arguments and critique the reasoning of others. (MP.3)		Look for and make use of structure. (MP.7)
	Model with mathematics. (MP.4)		Look for and express regularity in repeated reasoning. (I
LEARNER OUTCOME(S)		ASSESSMENT TOOLS/METHODS	
Stu	udents will be able to:	Formative:	
 Summarize data sets (career wages and education) using median and range Draw a graph to represent a career data set and solve one to two step problems using information presented on the graph 		Teacher walks around the room checking for student understanding, completion	
		Summative:	
			nts complete Occupation Educational Training s and Median Wages with 80% accuracy
LE	ARNER PRIOR KNOWLEDGE Students can calculate using a TI 30-XS Calculator		
LE	ARNER PRIOR KNOWLEDGE Students can calculate using a TI 30-XS Calculator Students can access the internet using computers		
	Students can calculate using a TI 30-XS Calculator	RESOURCES	
	 Students can calculate using a TI 30-XS Calculator Students can access the internet using computers STRUCTIONAL ACTIVITIES Write the following on the board: 	RESOURCES Chalk/white bo	
	 Students can calculate using a TI 30-XS Calculator Students can access the internet using computers STRUCTIONAL ACTIVITIES	Chalk/white bo	
	 Students can calculate using a TI 30-XS Calculator Students can access the internet using computers STRUCTIONAL ACTIVITIES Write the following on the board: a. What jobs have the most openings each year? 	Chalk/white bo	for student use
	 Students can calculate using a TI 30-XS Calculator Students can access the internet using computers STRUCTIONAL ACTIVITIES Write the following on the board: a. What jobs have the most openings each year? b. What are the salaries for those jobs? 	Chalk/white bo	pard

Attend to precision. (MP.6)

Ohio ABLE Lesson Plan – 2 of 7



- 2. Handout *Line Graphs* to students from *Common core achieve: Mastering essential test readiness skills* (Mathematics) and complete as a class.
 - Instruct students to complete *Think About Math* section. Observe students as they work and answer questions.

3. Handout 2012-2022 Snapshot of Occupational Projections

- a. Give students a few minutes to review the handout.
- b. Ask students to point to "Select Occupations by Educational and Training Level" Column.
- Teacher walks around room to ensure all students have found the correct column.
- 4. Handout Occupation Educational and Training Levels and Median Wages
 - a. Define Median as a class (middle salary, wage after I have been working at a position a few years, etc.)
 - b. Using the overhead projector, display Occupation Educational and Training Levels and Median Wages Teacher Example
 - c. OR Complete a blank handout together as a class
 - d. Ask: "Are there any questions?"
- 5. Direct students to complete their handout: Occupation Educational Training Levels and Median Wages using the 2012-2022 Snapshot of Occupational Projections handout.
 - a. Teacher walks around the room and assists students.
 - b. Teacher collects completed worksheets and checks for mastery.

Student copies of Line Graphs

Common core achieve: Mastering essential test readiness skills (Mathematics). (2015). Columbus, OH: McGraw-Hill Education.

Student copies of 2012-2022 Snapshot of Occupational Projections

Ohio Department of Jobs and Family Services. (n.d.). 2012-2022 Snapshot of Occupational Projections. Retrieved from http://www.odjfs.state.oh.us/forms/file.asp?id=2250&type=application/pdf

 This document can be ordered for free at http://www.odjfs.state.oh.us/forms/findform.asp?formnum =77100

Student copies of Occupation Educational and Training Levels and Median Wages (attached)

TI 30-XS Calculators for student use

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DIFFERENTIATION Assist students who are having difficulty using the computer, internet, and/or calculator Students can work individually, in pairs, or small groups Pair lower level learners with higher level learners Rulers to help complete graphs TEACHER REFLECTION/LESSON EVALUATION ADDITIONAL INFORMATION

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Use 2012-2022 Snapshot of Occupational Projections to complete the information below:

1.	Occupation:	
	Educational and Training Level:	
	Median Wage:	_
2.	Occupation:	
	Educational and Training Level:	
	Median Wage:	_
3.	Occupation:	
	Educational and Training Level:	
	Median Wage:	_
4.	Occupation:	
	Educational and Training Level:	
	Median Wage:	_
5.	Occupation:	



Educational and Training Level:					
Median Wage:					
Occupation Educational and Training Levels – Graphing Activity					



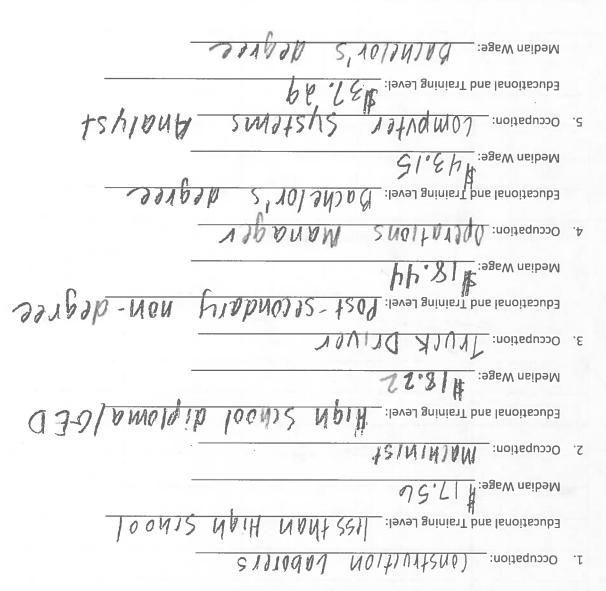
Occupation Median Wages – Graphing Activity

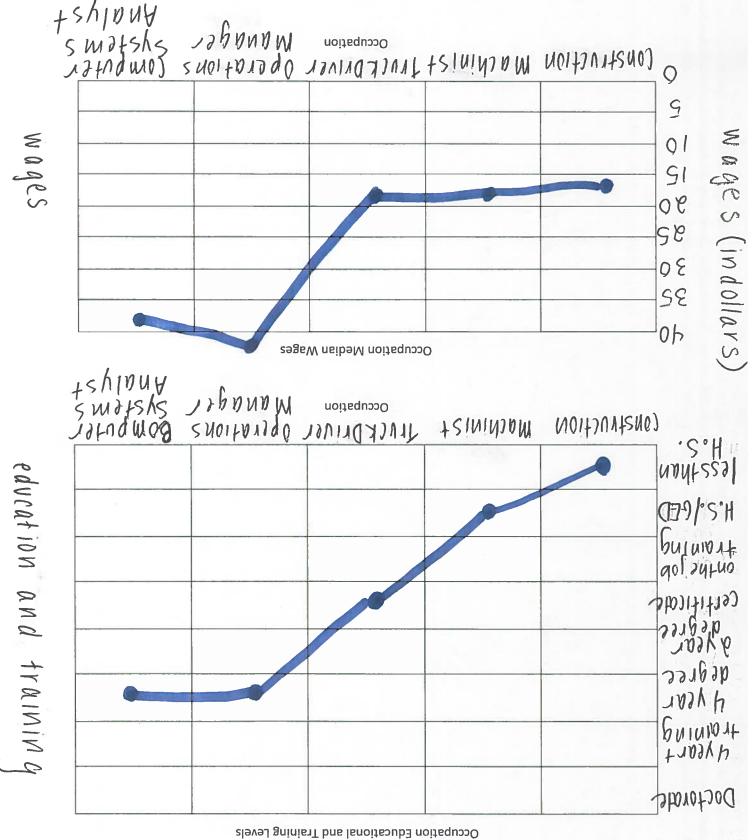
Analyze the data from your graph and answer the following questions:

- 1. What trends do you see? Describe 3 trends.
- 2. What is the range of wages? (the largest wage the lowest wage)

Use the Occupational Trends Pamphlet to complete the information below:

http://www.odjfa.state.oh.us/forms/findform.asp?formnum.asp?formnum.asp?formnum.asp?formnum.asp?formnum.asp?formnum.asp?formnum.asp?formnum.asp?formnum.asp?formnum.asp?formnum.asp?formnum.asp.formnu





Analyze the data from your graph and answer the following questions:

1. What trends do you see? Describe 3 trends.

2. What is the range of wages? (the largest wage – the lowest wage)