

Explain the Change

Subject: Math Tech 1/ Algebra 1

Class Periods: 2

<p>Daily Review:</p> <input type="checkbox"/> PACT <input checked="" type="checkbox"/> Prior Learning <input checked="" type="checkbox"/> Objective <input type="checkbox"/> Thinking Skills <input type="checkbox"/> _____	<p>Academic Objectives: The student will</p> <ul style="list-style-type: none"> • Review slope. • Use the Internet to research true data. • Creatively display the found research by a graph and explain the results to fellow classmates. 	<p>Standard(s):</p> <p>I.A.4, I.A.5, I.B.3, I.C.2, II.B.1, II.B.2, II.B.4 (SC)</p>
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- Lesson Introduction: The lesson will be introduced by reviewing slope as a rate of change as previously discussed in class.
- Instructional Process

<p>Activity #1: The teacher will give students a worksheet containing a graph of the population of Manhattan from 1790 to 1980. Students will discuss the trends noticed on the graph.</p>	<p>Notes: Discuss where Manhattan is.</p>
<p>Activity #2: The teacher will talk about the Internet and its purpose for the impending assignment.</p>	<p>Notes: Check for Internet permission (if applicable).</p>
<p>Activity #3: Students will pick a partner and choose a county in the state of South Carolina (or any other state) to analyze the population from 1900 to 2000. Students will attempt on their own to locate the population of the counties on the Internet.</p>	<p>Notes: Give students the website in order to find the table of all counties if they cannot find it on their own (example: http://www.ors2.state.sc.us/population/trends/pop1900.asp)</p>
<p>Activity #4: Students will use the slope formula to determine how the population changed in amount of people for each of the ten decades.</p>	<p>Notes: Make sure students show all of their work and it is labeled.</p>
<p>(Day 2) Activity #5: Students will use markers and computer paper to illustrate the population of the county they chose through a line graph also marking the changes between the decades.</p>	<p>Notes: Give the rubric so students are aware for grading prior to turning in project.</p>
<p>Activity #6: Students will present their findings of the particular county to the class. Once everyone presents, overall discussion will take place discussing any common trends found and reasons as to why they happened.</p>	<p>Notes:</p>

- Homework: On Day 1, the students will each write the remaining data (or have printed two copies) and complete the assignment of finding the changes between the decades. On Day 2, the students working together will compare answers to ensure accuracy.
- Closure: The teacher will relate the importance of slope as a rate of change and connect back to linear equations, which have constant slope (single line).
- Assessment: A rubric will be used to grade the students, which also includes a grade from their individual partner (see attachment).

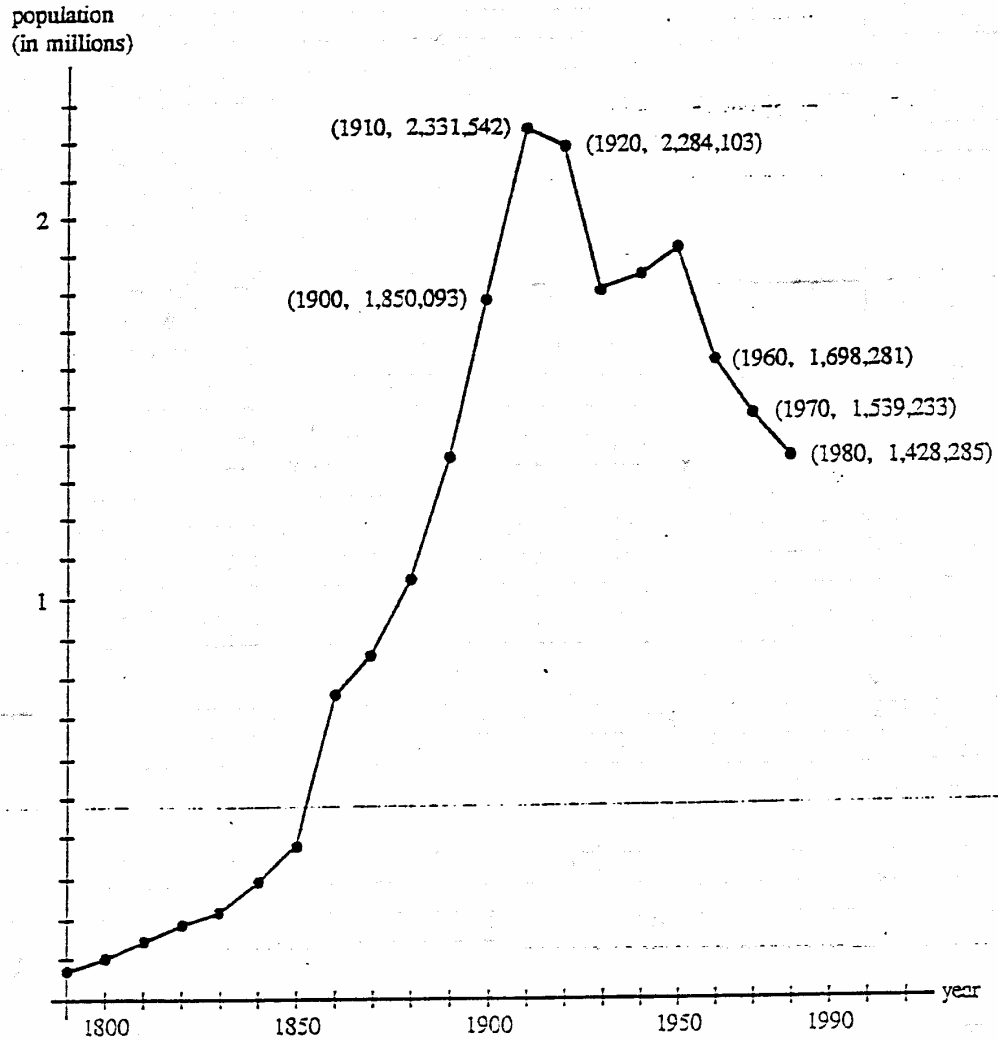
Research Based Practices Used

- Alternative Assessment
- Character Education
- Cooperative Learning
- Learning Styles
- Multiple Intelligences
- Technology/Internet
- Cross Curricula Lesson

[Subject(s) : Social Studies]

SLOPES AND LINES

Below is a graph of the population of Manhattan Island (part of New York) every ten years from 1790 to 1980. Coordinates of some of the points are shown.



The slopes of the lines connecting the points tell how fast the population went up or down. In this chapter, you will study many examples of lines and slopes.

Rubric for Internet –Based Activity

Area	Points Possible	Points Earned
Correct calculations	30	
Graph <ul style="list-style-type: none">• Labels• Correct points• Change marked on graph	5 10 10	
Peer Grade	10	
Participation/ Presentation	10	
Total	75	

Total Grade (out of 100): _____

Chart for Population Change

Year	Population (in # of people)	Change (between the years) (in # of people)
1900		xxxxxxxxxxxxxxxx
1910		
1920		
1930		
1940		
1950		
1960		
1970		
1980		
1990		
2000		xxxxxxxxxxxxxxxx