

The image shows the cover of a spiral-bound notebook. The cover is a light beige or tan color with a fine, woven fabric texture. On the left side, there is a silver metal spiral binding. The background behind the notebook is a solid light green color. The text is centered on the notebook cover in a black, serif font.

Differentiated Unit

Exploring Data and Graphs

Katherine F. Milano

About the Authors: Theresa Monaco

- Theresa Monaco is Professor of Curriculum and Instruction and Director for Center for Gifted and Talented Education at the University of Houston. She has authored:
- Monaco, T. (Ed.) 2nd Edition (2002) Biographical Directory of Leaders in Gifted Education. Royal Fireworks Press, Unionville, N.Y.
- Monaco, T, Brandi Allen, Azhar Zafar (2011) <http://www.nyu.edu/classes/keefer/waoe/monacostory.pdf>, Hyperlinked for public viewing . World Association for Online Education: The WWW Journal of Online Education. Updated by Publisher.
- Teachers Identify and Support At-Risk Gifted Students. Volume 8 Issue 3 -Jun 3, 2010 -11:27:53 AM. By Theresa Monaco, Danna Eichenold, Victoria Casper, Claudia V. Gonzales, Susan Jackson, Maria Earle, Eva Marie Bisailon



About the Authors: Katherine F. Milano

- Katherine has always had a passion for children, learning, and teaching. Milano is excited about completing her Bachelors of Arts degree in Interdisciplinary Studies as well as her minor in English, and Non-Profit Leadership Alliance Certification. Her teaching philosophy is to empower, encourage, and restore students who believe they cannot achieve.

7th Grade TEKS require students to be able to:

- 5A: Use tables, graphs, and equations to solve problems.
- 12B: Draw conclusions, predict using scatterplots.
- 12C: Construct circle graphs, bar graphs, histograms.
- 13 B: Recognize deceptive graphs and conclusions.
- 14A: Apply math to everyday experiences.
- 15A: Evaluate effectiveness of communication.

Differentiation is needed because:



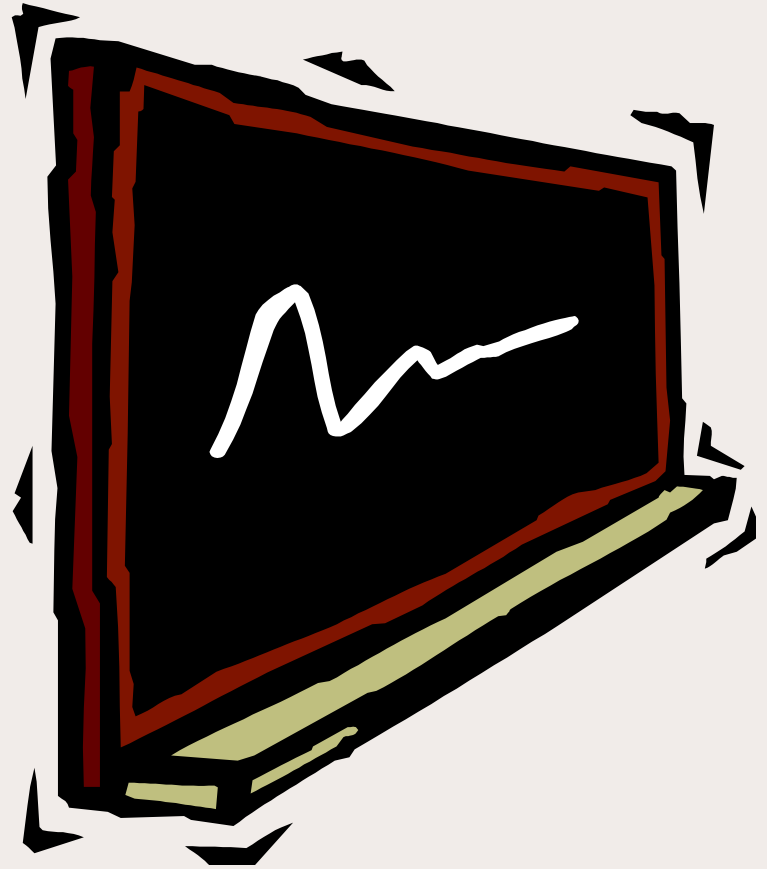
- Many of the gifted students have already mastered the material.
- If not completely mastered, then only a quick review is necessary.
- If mastered, then more depth and complexity can be explored.
- Material can be learned quickly.

The Plan

- Divide the students into 7 groups of 3 to 4 students each.
- Randomly assign a topic to each group.
- Students are to research their topic by using the text, the internet, the newspaper, or magazines.
- The students will teach their topic to the class.
- Visuals must be used.
- The use of technology is encouraged.
- The team must prepare 5 questions for the class in order to check for understanding.
- The class needs to pay attention, take notes, and ask questions.

Topics

- Pictographs and time lines
- Bar graphs and histograms
- Line graphs
- Choosing an appropriate graph
- Misleading graphs
- Line plots
- Scatterplots



Time Limits

- 2 full class periods to do research.
- Presentation is due on the fourth day.
- Presentation is to be a minimum of 10 minutes, but no more than 15 minutes.



Student Evaluation

- Group presentation grade based on scoring rubric.
- Individual grade from teacher made test on material covered based on TEKS.



Scoring Rubric

- Topic fully explained.....30 points
- Visuals used.....20 points
- 5 guided practice questions.....25 points
- Within 10-15 minutes.....5 points
- All students participated.....10 points
- Good eye contact.....5 points
- Loud and clear voice.....5 points