

Fourth Grade
Trailblazers Unit 1

“Data Around Us”

North Carolina Standard Course of Study

<http://www.ncpublicschools.org/curriculum/mathematics/scos/2003/k-8/24grade4>

MTB Correlation to NCSCOS

<http://www.kendallhunt.com/uploads/2/CORR-NC-MTB2.pdf>

Unit Activities

- Students are introduced to a classroom of fourth graders through a class picture and a data table displaying characteristics of the class. Students investigate categorical variables, organize data in a data table, and make bar graphs.
- Students differentiate between numerical and categorical variables. They investigate a numerical variable that describes themselves. They then collect, organize, and graph data about that variable.
- Students explore the concept of averages. They learn to find the median value of a set of data.
- Students read a fairy tale in the Adventure Book about four servants who solve a puzzle. After collecting pertinent data, they predict the height of a giant from the length of a handprint.
- Students collect, organize, graph, and analyze data using the TIMÍ Laboratory Method as they explore the relationship between height and arm span.
- Students solve a variety of word problems.

Unit Vocabulary

bar graph	horizontal axis	value	variable	vertical axis
categorical variable	numerical variable	average	median	fixed variables
point graph	convenient numbers	estimation	reasonable	

Fourth grade glossary link: <http://www.kendallhunt.com/index.cfm?PID=234&PGI=0>

Unit Manipulatives/Supplies

4 yardsticks or metersticks/station	Rulers	Calculators		
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Unit Assessment Indicators

- Can students identify categorical and numerical variables?
- Can students find the median of a data set?
- Can students make and interpret bar graphs?
- Can students make and interpret point graphs?
- Can students use patterns in data tables and graphs to make predictions?
- Can students measure length in inches?
- Can students demonstrate fluency with the addition facts?

Unit Literature

- *The Five Chinese Brothers*, Claire Huchet Bishop
- “How Six Men Traveled Through the Wide World” and “The Six Servants” from *The Complete Grimm’s Fairy Tales*.
- *The Seven Chinese Brothers*, Margaret Mahy and Jean and Mon-Sien Tsaug

Unit Software

- *Carmen Sandiego Math Detective* provides practice with math facts, estimation, ordering numbers, and word problems.
- *Graph Master* allows students to collect data and create their own graphs.
- *Ice Cream Truck* develops problem solving, money skills, and arithmetic operations.
- *Kid Pix* allows students to create their own illustrations.
- *Math Mysteries Measurement* develops multistep problem solving with distance, weight, and capacity.
- *Math Mysteries: Whole Numbers* is a series of structured word problems dealing with whole numbers.
- *Number Facts Fire Zapper* provides practice with math facts in an arcade-like game.
- *Number Sense-Puzzle Tanks* develops logical thinking while practicing math facts.
- *Ten Tricky Tiles* provides practice with math facts through engaging puzzles.

Websites to Explore

- Rainforest Math – Click on level D or E and choose “Data” on the bottom row of the menu.
<http://www.rainforestmaths.com/>

You Can Help Your Child

- Keep an eye out for the words “average” and “median.” They may appear on food labels, in weather reports, or in newspapers and magazines. Discuss these averages with your child.
- Help your child review the addition facts at home. If your child needs more practice, he or she will be given flash cards and games to use at home.
- Look in Newspapers or magazines for graphs and discuss these with your child.
- Discuss data in everyday life Ex. Daily events, favorite foods, names of family members
- Make a graph out of pasta or beans using a variable from your family