

**Fifth Grade
Math Trailblazers Unit 1**

“Populations and Samples”

North Carolina Standard Course of Study

<http://www.ncpublicschools.org/curriculum/mathematics/scos/2003/k-8/27grade5>

MTB Correlation to NCSCOS

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

Unit Activities

- Students use the TIMS Laboratory Method to carry out a brief study of the number of eyelets in shoes in the classroom.
- Students collect, organize, and graph numerical data. They also investigate averages by using the median.
- Students compare and analyze data in graphs. Then, they review averages (medians and modes).
- Students read *A Matter of Survival* in the *Adventure Book*. Animal populations in the Amazon rain forest are sampled. This story sets the stage for the lab in the next lesson.
- Students model the sampling of an animal population in the forest by sampling a *population* of colored square-inch tiles in a bag.
- Students solve a variety of multi-step problems.

Unit Vocabulary

categorical variable	numerical variable	data	values	mode
variable	survey	average	median	value
population	probability	rubric	sample	mean

Fifth grade glossary link: http://www.kendallhut.com/uploads/2/MTB_Gr5_Glossary.pdf

Unit Manipulatives/Supplies

calculators	centimeter graph paper	Colored square-inch tiles, links, connecting cubes or colored breakfast cereal	Brown lunch bags	Letter-size envelope
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Unit Assessment Indicators

- Can students collect, organize, graph, and analyze data?
- Can students make and interpret bar graphs?
- Can students find the median of a data set?
- Do students work well in small groups?
- Do students demonstrate fluency with the addition and subtraction facts?

Unit Literature

- *Ancient Ones* by Barbara Bash
- *One Day in the Tropical Rain Forest* by Jean Craighead George
- *The Jungle Books* by Rudyard Kipling
- *Welcome to the Green House* by Jane Yolen

Unit Software

- *The Amazon Trail* takes students on an adventure to the Amazon Basin.
- *A Field Trip to the Rain Forest Deluxe* integrates mathematics with science.
- *Graph Master* allows students to collect data and create their own graphs.
- *Math Mysteries: Advanced Whole Numbers* is a series of structured multi-step word problems dealing with whole numbers.
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- *Number Facts Fire Zapper* provides practice in number facts in an arcade-like game.
- *Puzzle Tanks* develops logical thinking while practicing math facts.
- *Ten Tricky Tiles* provides practice with number facts through engaging puzzles.

Websites

Revise Wise Math – Data Handling: Interpreting Data; Mode; Median; Mean
<http://www.bbc.co.uk/schools/revisewise/maths/data/>

AAA Math – Mean, Median, Range, and Mode
<http://www.aaamath.com/B/sta.htm>

Rainforest Math – Click on the appropriate grade level. Choose “Data” from the bottom row of the menu.
<http://www.rainforestmaths.com/>

You Can Help Your Child

- Talk about the mathematics you use every day – the measuring you do when you cook or the computations you do when you pay the sitter.
- Ask your child to explain the mathematics he or she is doing in school.
- Review the addition and subtraction facts with you child.
- Tricks to help your child remember: MODE = MOST, MEDIAN = MIDDLE, RANGE = DIFFERENCE

- Create bar graphs by gathering information from around the house (clothes, favorite items, food) and compare your graph with other family members.