Data and Measurement
Course and Behavior Syllabus
Mrs. Roe

What is Data and Measurement?

- This class picks up where your Algebra I class left off. You will continue to learn things that are related to Algebra, and build onto those skills. You will also learn about the following:
- Graphing functional equations with exponents onto a coordinate plane
- Finding area, perimeter, and volume of different shapes
- How to make sense of graphs
- How to describe and compare data by looking at the shapes of graphs
- How to find measures of central tendency, and compare data distributions using that information
- How to make accurate predictions using data

Will I ever have to use any of this math again?

- Understanding graphs and how data is displayed is important for all career areas and in real life. What are some jobs you can think of where you might need to understand a graph? Working in construction, as a store manager, or car salesmen are just a few jobs you have to understand a graph for. Why?
- Understanding shapes, how to find perimeter, volume, and area is necessary for any kind of home improvement project, or construction job. It is also necessary when you go furniture shopping, buy a vehicle, or even buying groceries. Why?
- Measures of central tendency are things like: mean, median, and mode. These are words that describe the average of a group of numbers, the middle number in that list, and the number that occurs the most often in that list. Understanding these things is very important when you are looking for a job, balancing your checkbook, grocery shopping, or looking for a home. Why is that?
- Probability and predictions are important especially in investing. First, what does probability mean? What are predictions? If you don't think you will ever be involved in investing in your life… think again! You will be investing in a vehicle (if you haven't already), in a home or in an apartment, furniture, clothes… all kinds of things you'll use every day! Why are these things an investment? How will probability and good prediction skills help you be successful in these areas?
- This year, you have the hardest CATS test of your high school career. There is a huge math section … so it is really important you understand what we cover; that way, you can be successful on the CATS test.

How will we do this?

- Data and Measurement will follow basically the same routine each day.
- We begin with a bell ringer. These are done independently, while I take attendance. You must do your bell ringer every day. Not doing them can cause you to fail the class. We will go over the bell ringer together after everyone has finished. If you got yours wrong, you can correct it. It is your responsibility to make sure it gets done, and is correct each day. Bell ringers are collected and graded each Friday.
- We will work on chapters 9 and 10 from your Algebra I text, as well as two units that are designed for you to demonstrate your understanding of certain topics. When we work on the chapters, we will do guided notes over each section. These are designed to break down the new

concepts and to remind you of previous concepts you will need to know. You must participate in these notes. They are for a grade! Then, you will be given an opportunity to show you understand the new concepts by completing practice problems.

- We will spend a few days on each new concept. We will work together on problems until you are able to do them on your own. We work for 100% mastery of all concepts, no matter how long it takes!
- Once we have finished the chapters, you will take a test. The good news is this: you can use all of the guided notes taken over each section to help you on the test!
- Choosing not to participate and not to work is NOT an option. Not completing the assignments and activities during the designated time can very easily cause you to fail. The worst thing about that is, you have to have your Data and Measurement credit in order to graduate.

How will we be graded?

- Everything you do in this class is for a grade. You will receive a grade on every single thing we do. I will not waste your time by asking you to do something that is not worth anything. We have too much to cover, and not enough time to do it in! You receive a grade on: bell ringers, notes, practice problems, participation, tests, quizzes… everything!

What are the classroom rules?

- We have three very easy and simple rules:
- First: Be Respectful
  - Be nice to me, be nice to your classmates, be nice to your environment. Remember that respect is a two-way street. In order to get respect, you must give respect. That is true no matter who you are!
- Second: Be Reliable
  - Come to class every day, participate in everything we do, follow along, try your best. Be ready to learn each day, and never make excuses!
- Third: Be Responsible
  - Keep up with the rest of the class, in order to do this, you must be here, and paying attention every minute of every day.

What happens if we break a rule?

- First time: you will receive a warning.
- Second time: one-on-one conference with me, seat moved, and phone call home
- Third time: You're out… you have a one way ticket to the front office with a discipline referral.
- The good news is this: each day, you get to start over, you have a clean slate each new day!

Ready?

- Sign below if you agree to do your best, to try harder than you ever have before, each and every day in class, and you agree to follow the rules, accept any and all consequences for breaking any rules, and to have a positive attitude every day.

_____   _____
Signature   Date

Probability Lesson Plans

- 15.1 Counting Principals Notes and Practice Problems (Pacemaker) — *Dice in top right desk drawer*

- The Counting Principal Homework (Holly)

- 15.2 Permutations Notes and Practice Problems (Pacemaker)

- 15.3 Combinations Notes and Practice Problems (Pacemaker)

- Combinations and Permutations Problems (Holly)

- Notes: When to use Fundamental Counting Principle, Permutations and Combinations and practice problems (Holly)

- 15.4 Probability Notes and Practice Problems (Pacemaker)

- 15.5 Complementary Events Notes and Practice Problems (Pacemaker)

- Worksheet 5-15 Stretch Algebra (Holly)

- Worksheet 10-10 Practice: Probability of Compound Events (Holly)

- Mutually Exclusive and Inclusive Probability Worksheet (Holly)

- 15.6 Independent Events Notes and Practice Problems (Pacemaker)

- 15.7 Dependent Events Notes and Practice Problems (Pacemaker)

- Worksheet 10-9 Practice Probability of Independent and Dependent Events and Study Guide (Holly)

- Compound Probability Task Cards (Holly)

- Notes: Conditional Probability (Holly)

- Worksheet 11-4 Practice Conditional Probability (Holly)

- Cards and Probability Worksheet (Holly)

- Chapter 15 Review and Chapter Quiz (Pacemaker)

- Mixed Probability Formative Quiz (Holly)

- Probability Test Review (With Answer Bank) (Holly)

- Probability Test (Holly)

Measures of Central Tendency Lesson Plans

- 9.1 Notes and Practice Problems (Pacemaker)

- 9.2 Notes and Practice Problems (Pacemaker)

- Ch. 9 Worksheet 81 and 82

- Mean Median Mode Worksheet

- Boston Celtics Activity

- Quiz 1 Mean Median Mode

- 9.3 Notes and Practice Problems (Pacemaker)

- Quiz 2 Minimum, Maximum and Range

- 9.4 Notes and Practice Problems (Pacemaker)

- Ch. 9 Worksheet 83 and 84

- 9.5 Notes and Practice Problems (Pacemaker)

- 9.6 Notes and Practice Problems (Pacemaker)

- Histogram Activity

- Measurement Activity (tape measures in top right desk drawer)

- Quiz 3 Scatter Plots and Frequency Tables

- 9.7 Notes and Practice Problems (Pacemaker)

- 9.8 Notes and Practice Problems (Pacemaker)

- Ch. 9 Worksheet 85 and 86

- 9.9 Notes and Practice Problems (Pacemaker)

- Ch. 9 Worksheet 87 and 88

- Worksheet 8.2 Practice: Integration: Statistics Scatter Plots

- Chapter 9 Test A and B

- Unit 1: Contexts and Units (all)