

In order to prepare for the upcoming school year, you are required to check out an AP Statistics book from Mrs. Carress in the AC **before** you leave for summer break.

You are also required to complete the following assignment for the **FIRST** day of school. It is a combination of terminology, reading from your text, Khan Academy lessons, and assignments.

You should already have a [www.khanacademy.org](http://www.khanacademy.org) account. (If not, make one!)

Join my class by using this code: **K6MU9E8R**

- At the top right corner, click your name and the notifications section will lead you to your assignments.
- Take notes only on items you are unsure about from both the textbook and Khan Academy.
- If you have a question, it is your responsibility to search for the answer or contact me for help!
- You will get credit for every video, assignment, etc assigned below. \*I can tell if you have watched an entire video. \*\*Also, you can redo any assignment until you get 100%.

***We will be starting the school year off with Chapter 5. The topic: Designing Samples and Experiments***

1. Create (or find) a Quizlet that includes all of the following terms: (You will have a matching terminology quiz, so **STUDY and memorize before you return to school!**) You can show me your Quizlet on your phone for credit. Warning: If you don't study, you won't do well!

Observational study

Experiment

Population

Sample

Census vs sampling

Sampling method

Voluntary response sample

Convenience sampling

Bias

Simple random sample

Systematic sample

Cluster sample

Stratified random sample

Under coverage

Nonresponse

Response bias

Experimental units

Subjects

Treatment

Placebo effect

Control

Replication

Randomization

Block design

Matched pairs design

Blind experiment

Double-blind experiment

Confounding variables

Lurking variables

2. Read pages 330 – 332, 343-347 (Remember: only take notes on what you don't already know.)
3. Go to Khan Academy and complete the following:
  - a. Identifying a sample and population
  - b. Practice: Identifying the population and sample
  - c. Examples of bias in surveys
  - d. Examples of under coverage
  - e. Identifying bias in samples and surveys
  - f. Correlation and causality

4. Read pages 334 – 341

5. Go to Khan Academy and complete:
  - a. Techniques for generating a random sample
  - b. Practice: Simple random samples
  - c. Techniques for random sampling and avoiding bias
  - d. Practice: Sampling methods
  - e. Quiz 1
  
6. Read page 329 (including the child care example)
  
7. Go to Khan Academy and complete:
  - a. Types of statistical studies
  - b. Worked example identifying experiment
  - c. Worked example identifying observational study
  - d. Observational studies and experiments
  
8. Read pages 354 – 361
  
9. Go to Khan Academy and complete:
  - a. Introduction to experiment design

You will need a graphing calculator every day in class in order to be successful. If you do not already own your own graphing calculator, I suggest a TI-84+ or TI-Nspire model. (Unfortunately, the TI-83 doesn't do everything required of you in AP Statistics.) You will be able to use these graphing calculators through college as well. Calculators are available at any office supply store such as Staples or Office Max. They are also available new or used through Amazon.com and Ebay.com.

I would estimate that it will take you 3 – 5 hours to complete the entire assignment. Do NOT wait until the day before school starts to begin. If you have any questions before the school year is over, you can stop by my classroom (301) or send me an email. Enjoy your summer and I will see you in September!

Mrs. Shelton

[SheltM01@wsdmi.org](mailto:SheltM01@wsdmi.org) or [mathshelton1@gmail.com](mailto:mathshelton1@gmail.com)