

Mr. Helberg's
AP Stat Class

SWBAT understand what is expected of them in AP Stat
SWBAT give data that will be used for a project later down the road
SWBAT review categorical and quantitative data

About myself:

Went to Magruder HS
Went to Maryland and James Madison
4th year at Wheaton HS
Married with a 9 month old daughter
LOVE sports
LOVE LOVE Matl

Note Card

Front: Put your name in large print

Back: State three interesting things about yourself

Data Collection

Around the room are different questions in which you need to give me the answer to.

This data will be used for a take home project later this week.

A **variable** is any characteristics, number, or quantity that can be measured or counted.

Quantitative variables have values that describe a measurable quantity as a number, like 'how many' or 'how much'.

A **continuous** variable is a numeric variable. Observations can take any value between a certain set of real numbers.

The value given to an observation for a continuous variable can include values as small as the instrument of measurement allows.

Examples of continuous variables include height, time, age, and temperature.

A **discrete** variable is a numeric variable.

Observations can take a value based on a count from a set of distinct whole values. A discrete variable cannot take the value of a fraction between one value and the next closest value.

Examples of discrete variables include the number of registered cars, number of business locations, and number of children in a family, all of which measured as whole units (i.e. 1, 2, 3 cars).

Categorical variables have values that describe a 'quality' or 'characteristic' of a data unit, like 'what type' or 'which category'.

Categorical variables fall into mutually exclusive (in one category or in another) and exhaustive (include all possible options) categories.

An **ordinal** variable is a categorical variable.

Observations can take a value that can be logically ordered or ranked. The categories associated with ordinal variables can be ranked higher or lower than another, but do not necessarily establish a numeric difference between each category.

Examples of ordinal categorical variables include academic grades (i.e. A, B, C), clothing size (i.e. small, medium, large, extra large) and attitudes (i.e. strongly agree, agree, disagree).

A **nominal** variable is a categorical variable.

Observations can take a value that is not able to be organised in a logical sequence.

Examples of nominal categorical variables include sex, business type, eye colour, religion and brand.

