

# Types of Data



MRS. WEST  
2019

Data? Evidence? Support? Validity?

**SCIENCE** is a body of knowledge that explains the natural world.



# Observations & Data



- The act of noticing something or someone carefully to gain information
- Data is information collected during an investigation



# Types of Data

- There are three types of data:
  - Qualitative
  - Quantitative
  - Ranked (used occasionally when appropriate)



QUALITATIVE



QUANTITATIVE



RANKED

# Qualitative



QUALITATIVE

- Refers to physical characteristics such as color, odor, or shape

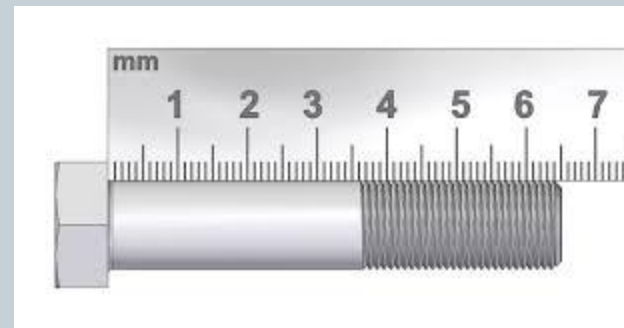


# Quantitative



QUANTITATIVE

- Refers to numerical observations and measurements, such as mass, volume, and temperature



# Ranked



- Data which can be ranked on a scale that represents order



# Now let's practice



*In your notes, make a chart like the following:*

	Qualitative	Quantitative	Ranked
#1			



# Practice #1



## No. 30 – Golden State Warriors

<b>Position</b>	Point guard
<b>League</b>	NBA

## Personal Information

<b>Born</b>	March 14, 1988 (age 31) Akron, Ohio
<b>Nationality</b>	American
<b>Listed height</b>	6 ft 3 in (1.91 m)
<b>Listed weight</b>	190 lb (86 kg)

## Career Information

<b>High school</b>	Charlotte Christian (Charlotte, North Carolina)
<b>College</b>	Davidson (2006–2009)
<b>NBA draft</b>	2009 / Round: 1 / Pick: 7th overall Selected by the Golden State Warriors
<b>Playing career</b>	2009–present

# Now let's practice



- In your notes, make a “T” chart like the following:

	Qualitative	Quantitative	Ranked
#1	Plays for Warriors Wears blue & gold Sweating	31 years old 6'3" tall 190 lb	Jersey #30 7th pick (First round in 2007)
#2			

# Practice #2



**Sarah the cheetah:  
100-meter dash,  
5.95 seconds**



**Olympian Usain Bolt:  
100-meter dash,  
9.58 seconds**

# Now let's practice



- In your notes, make a “T” chart like the following:

	Qualitative	Quantitative	Ranked
#1	Plays for Warriors Wears blue & gold Sweating	27 years old 6'3" tall 190 lb	Jersey #30 7th pick
#2	Cheetah has spots Usain wears Jamaican jersey	100m in 5.95 sec (Sarah) 100m in 9.58 sec (Usain) Sarah runs 3.63 seconds faster than Usain	Sarah is the fastest (1st) Usain is next fastest (2nd)
#3			

# Practice #3



# Practice #4



# Practice #5



# Types of Graphs



Now that we understand the types data that can be collected in an investigation, let's consider how to display data in appropriate graphs.

See handouts

WHICH GRAPH TO USE

&

HOW TO GRAPH



# HOMEWORK due next block



Create an appropriate graph for the class data we collected. Include all graphing requirements (see HOW TO GRAPH handout).

# HOMework due next block



Next block we will conduct an investigation that explores how the **SIZE** of a paper airplane affects the **DISTANCE IT TRAVELS**.

In your notes... sketch out a data table that would organize the data you would collect in this investigation. Include a title and needed labels.

*HINT: First think about how you would conduct the investigation... what you would do... what you would measure...*