Name: _____

Partner(s): _____

Trimester 3 Project

Your topic: _____

We are going to use a topic of your choice to practice the following material covered in Unit 6:

Mean Median MAD Distribution Variability Box Plots

Choosing a topic:

- You will need to choose a topic that allows you to collect data in number values
- You and your partner will need to each perform two of the same experiments each, so that you have different data sets
- You will collect 11 sets of data in each data set

You can work in groups of 2 or 3:

- Once you choose your partner(s), report your group to your teacher
- If you don't choose a partner, that's ok! You will be randomly assigned a partner!

We will assign parts of the project to be completed at different times, so look out for what's labeled as **Homework** and what's labeled as **Classwork**

Rough Project Timeline (May change by a day or two):

- ☐ Wednesday/Thursday (5/17 or 5/18) — Report partner and project topic to teacher
- ☐ Thursday (5/18) — If you did not choose your own partner, you will randomly be assigned one by Thursday night
- ☐ Friday (5/19) — Check teacher comments and finalize your project idea
- ☐ Friday (5/19) — If your project topic has not been chosen by the end of this day, you will be randomly assigned a topic
- ☐ Friday (5/26) — Data due! Show your teacher your data in class on the sheet found on P. 2 — Remember to collect data early in case you need to change your topic idea!
- ☐ Monday - Friday (5/29 - 6/2) — In class project work-time
- ☐ Monday - Block Day (Weds. or Thurs.) (6/5 - 6/8) — In-class presentations

Presentation options:

- Poster
- keynote
- Video
- PowerPoint
- Presentation method of your choice (if you get it approved by teacher)

Remember that your student laptops are returned 6/2:

- So, you can only do a digital media presentation if you definitely finish by the end of class on 6/1
- If you choose to do a digital media presentation, you will need to share your final presentation with your teacher over Google Drive before you turn in your laptops by 6/1

Rubric (Graded by teacher):

	Possible Points	Your Points
2 sets of data for each partner	6	
Calculations of: Mean, Median, Lower Quartile, Upper Quartile, Lowest Value, Highest Value, and MAD	10	
2 Box Plots for Data set 1 (or 3 Box Plots if you're a group of 3)	6	
2 Box Plots for Data set 1 (or 3 Box Plots if you're a group of 3)	6	
Answers to the 3 questions (on P. 6) for Data set 1	3	
Answers to the 3 questions (on P. 6) for Data set 2	3	
Definitions for MAD, distribution, and variability	3	
Presentation	5	
Photo/Video evidence	3	
TOTAL POINTS	45	

Data Due:
Friday 5/26!!!

HOMEWORK

1st Data Set — What you are doing to collect this data: ____

____

____

Trial	1	2	3	4	5	6	7	8	9	10	11
Results of that trial											

Any notes you have on why you think the results happened the way they did: ______________________________

____

____

____

____

~~~~~~

2nd Data Set — What you are doing to collect this data: ____

____

____

Trial	1	2	3	4	5	6	7	8	9	10	11
Results of that trial											

Any notes you have on why you think the results happened the way they did: ______________________________

____

____

____

____
~~~~~~

Your Data Set #1 — Topic: _____

Trial	1	2	3	4	5	6	7	8	9	10	11
Results of that trial											

Order your data from lowest to highest: ___, ___, ___, ___, ___, ___, ___, ___, ___, ___, ___

Median: _____

Work:

Lowest Value: _____

Highest Value: _____

Lower quartile: _____

Work:

Upper quartile: _____

Work:

Mean: _____

Work:

MAD: _____

Work:

After each page of classwork, show teacher your work before moving on!

CLASSWORK

Your Data Set #2 — Topic: _____

Trial	1	2	3	4	5	6	7	8	9	10	11
Results of that trial											

Order your data from lowest to highest: ___, ___, ___, ___, ___, ___, ___, ___, ___, ___, ___

Median: _____

Work:

Lowest Value: _____

Highest Value: _____

Lower quartile: _____

Work:

Upper quartile: _____

Work:

Mean: _____

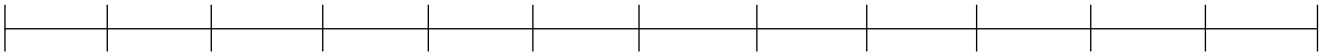
Work:

MAD: _____

Work:

After each page of classwork, show teacher your work before moving on!

Data Set #1 — Topic: _____



1) Which partner's data set has a higher distribution of values? _____

2) Which partner's data set has a higher variability? _____

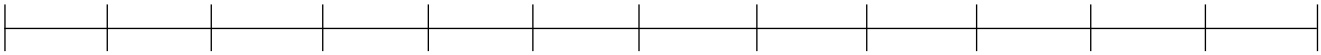
3) What do you think could be the reason for the differences in you and your partner's data sets? _____

_____

_____

_____

Data Set #2 — Topic: _____



1) Which partner's data set has a higher distribution of values? _____

2) Which partner's data set has a higher variability? _____

3) What do you think could be the reason for the differences in you and your partner's data sets? _____

_____

_____

_____

After each page of classwork, show teacher your work before moving on!

Your presentation needs to include:

1) 4 data sets total (Partner 1: data for 1st data set and 2nd data set, Partner 2: data for 1st data set and 2nd data set). **Groups of 3** will need 6 data sets total!

2) 4 box-plots total (2 for 1st data set, 2 for 2nd data set). **Groups of 3** will need 6 box-plots total!

3) For each data set (2 for each partner/ 4 total) (Groups of 3 will need 6 total):

- Median
- Lower Quartile
- Upper Quartile
- Lowest Value
- Highest Value
- Mean
- MAD

4) 2 sets of answers to the 3 questions on P. 6 (1 for comparing your partner and your data for 1st data set and 1 for comparing your partner and your data for your 2nd data set) (Groups of 3 will also have 2 sets of answers

- Which partner's data set has a higher distribution of values?
- Which partner's data set has a higher variability?
- What do you think could be the reason for the differences in you and your partner's data sets?

5) Definitions for MAD, distribution, and variability

Final information:

Remember that you will need to take video or photo evidence while you gather your data. You will not need to include every photo or video in your final project, since that would take too much time/space.

So, pick the best ones for your presentation.

However, all photo/video evidence will need to be shown to your teacher DIGITALLY, so I recommend uploading it into a file on Google Drive

(do NOT print a bunch of photos! If you are doing a poster presentation, only print a few photos that will be included on your poster!)