Name: _____ Period: _____ Date: _____

Stations: Get your data in order: Finding the median and mean   Math 6

Work in groups of 3-5 students.
Read the instructions at each station carefully.
Record the data that you collect and then find the median and mean for each set.

Station 1 : *Roll the Dice*

At this station, you will take turns rolling the dice and record the rolls in the table below.
- Roll 2 dice at a time
- Record the sum of each roll in the table below
- Do this 7 times
- Now, rewrite the data in order from least to greatest
- Find the Median
- Calculate the Mean - show your calculations

Roll #	Value of the roll	Use space below to show your work and calculations		Order values from least to greatest to find the MEDIAN
1				
2				
3				
4				
5				
6				
7				
	MEAN =			MEDIAN =

Stations: Get your data in order: Finding the median and mean   **Math 6**

Station 2 : *How do the pencils measure up?*

At this station you and your group must measure the pencils to the nearest cm
- Record the measurement in the table
- Rewrite the lengths from least to greatest
- Find the median
- Calculate the Mean

Pencil #	Length in cm	*Use space below to show your work and calculations*		Order values from least to greatest to find the MEDIAN
1				
2				
3				
4				
5				
6				
	MEAN =			MEDIAN =

Do you think the <u>mean</u> or the <u>median</u> best describes the lengths of the pencils in the group?
Why?

Stations: Get your data in order: Finding the median and mean   **Math 6**

 Station 3 : *Temperature Research Station*

At this station, you can each choose your own state and record the data.
- Launch the website for climate data
- Pick a state
- Record the average monthly high temperatures by month
- Rewrite it in order from least to greatest
- Find the Median (With your group, talk about how to find the middle number of 12 data points)
- Calculate the Mean

STATE: _____

Month	High temperature (F)	*Use space below to show your work and calculations*	Order values from least to greatest to find the MEDIAN
January			
February			
March			
April			
May			
June			
July			
August			
September			
October			
November			
December			
	MEAN=		MEDIAN =

Stations: Get your data in order: Finding the median and mean   **Math 6**

Station 4 : *Make a basket*

Now it's time to practice your shot! How many baskets can you make? Take turns shooting 7 shots in a row. Rotate through 4 times to calculate the your own median and mean

- Ball up 7 pieces of paper
- Shoot from a 5-6 ft away from the recycling bin
- Record how many baskets you make out of 7
- Do this 4 times
- Rewrite the data in order from least to greatest
- Find the Median - for your 4 turns
- Calculate the Mean

Round $	Number of shots made out of 7	Use space below to show your work and calculations		Order values from least to greatest to find the MEDIAN
1				
2				
3				
4				
	MEAN =			MEDIAN =

Explain how you found the MEDIAN when there was an even number of values. What is the middle number?

Stations: Get your data in order: Finding the median and mean   **Math 6**

Station 5: Rock, Paper, Scissors

Everyone likes a good game of rock, paper, scissors. Remember: Rock beats scissors, scissors beats paper, paper beats rock. Play against your partners. You can play as a whole group, or split into pairs.

- Play rock paper scissors with your partners
- If you win, you get 2 points, If you lose you get 0 points, If you tie you get 1 point
- Play a round of 5 "shoots"
- Record your score
- Play a total of 5 rounds
- Rewrite the data for your 5 rounds in order from least to greatest
- Find your Median score - (for all 5 rounds)
- Calculate your Mean score
- Compare to your partners scores

Roundl #	Points you earned W=2 L = 0 T = 1	Use space below to show your work and calculations		Order values from least to greatest to find the MEDIAN
1				
2				
3				
4				
5				
	MEAN =			MEDIAN =

Compare your scores to the rest of the players in your group. What do you notice?

Stations: Get your data in order: Finding the median and mean   **Math 6**

Practice and Reflection

    1.) For the following 2 sets of data, find the median and the mean

A)

Test Scores	Use this space for work
75	
83	
91	
100	
96	

MEDIAN : _____

MEAN : _____

B)

Number of people who ride the bus		Use this space for work
Mon.	26	
Tues.	37	
Wed.	30	
Thurs.	45	
Fri.	52	

MEDIAN : _____

MEAN : _____

Stations: Get your data in order: Finding the median and mean   **Math 6**

Use the examples from problem to help you answer the next questions

2.) When would MEAN be the best measure of average? Explain.

3.) When would MEDIAN be a better measure of average? Explain.

4.) Explain how to find the MEDIAN if the data set has an even number of values
   and has 2 middle numbers. Provide an example to show your reasoning.