Unit: Statistics
Investigating Sampling

Name _____

Date _____ Pd_____

OUR CLASS SAMPLE

Use the people in your class to complete the chart. Then, use the data to determine what the population of the school is like.

MAKE A PREDICTION:

Think about your classmates and the school as a whole. Predict whether your class is a representative sample of the school population.

_____

_____

_____

_____

GATHER DATA:

Complete the chart below. Mark a tally for each person to whom the characteristic applies. Choose your own characteristic in the bottom right box.

MALE	FEMALE	BLACK HAIR	BROWN HAIR	RED HAIR	BLONDE HAIR
PLAYS A SPORT	INVOLVED IN A CLUB	INVOLVED IN FINE ARTS	HAS A BROTHER	HAS A SISTER	

Answer the following questions based on the data.

1. Do any of the statistics appear to be out of the norm? Why or why not?

_____

_____

2. How can you use the data above to make predictions about the school population?

_____

_____

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DRAWING INFERENCES:

Using the data gathered from your class, determine the number of students in the population. Use a reasonable estimate of your school's population.

Total # of Students in Class: _____ Total # of Students in School: _____

PLAYS A SPORT	INVOLVED IN A CLUB
INVOLVED IN FINE ARTS	SPEAKS MORE THAN ONE LANGUAGE

3. Based on your data, what percent of the school population plays a sport? Does this seem reasonable?

4. How does your population size and sample size impact your ability to draw reasonable conclusions?

CONCLUSIONS:

_____

_____

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_____

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Name KEY

Date _____ Pd_____

OUR CLASS SAMPLE

Use the people in your class to complete the chart. Then, use the data to determine what the population of the school is like.

MAKE A PREDICTION:

Think about your classmates and the school as a whole. Predict whether your class is a representative sample of the school population.

Answers vary. I would suggest that students justify their predictions.

GATHER DATA:

Complete the chart below. Mark a tally for each person to whom the characteristic applies. Choose your own characteristic in the bottom right box.

MALE	FEMALE	BLACK HAIR	BROWN HAIR	RED HAIR	BLONDE HAIR
PLAYS A SPORT	INVOLVED IN A CLUB	INVOLVED IN FINE ARTS	HAS A BROTHER	HAS A SISTER	

Answer the following questions based on the data.

1. Do any of the statistics appear to be out of the norm? Why or why not?

Things to consider: does this class meet at the same time as band or athletics or something that would remove a group from the sample, grade levels, etc.

2. How can you use the data above to make predictions about the school population?

If you know the sample size and the population size, you can use proportions to draw inferences about the population.

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DRAWING INFERENCES:

Using the data gathered from your class, determine the number of students in the population. Use a reasonable estimate of your school's population.

Total # of Students in Class: _____ Total # of Students in School: _____

PLAYS A SPORT	INVOLVED IN A CLUB
Answers vary. I would suggest a reasonable estimate of students for more "friendly" numbers.	
INVOLVED IN FINE ARTS	**SPEAKS MORE THAN ONE LANGUAGE**

3. Based on your data, what percent of the school population plays a sport? Does this seem reasonable?

Answers vary. If you have accurate data from the school office, it would be interesting to determine the accuracy of the sample.

4. How does your population size and sample size impact your ability to draw reasonable conclusions?

A school that is a small population will be impacted more by a sample. The larger the sample, the more accurate the inferences are.

CONCLUSIONS:

_____

_____

_____

_____

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