

# Survey and Statistics

What is Your  
Favorite Subject?

How Many  
Different  
Sports Do You  
Play Well?

How Many  
Times a Week  
Do You Eat  
Lunch?



**By Nancy L. Wilkinson**

## Survey and Statistics

### Lesson 2

### Organizing the Data



#### Objectives:

The students will organize and represent the information/data.

#### Skills:

- 1) Outliers
- 2) Frequency tables

#### Materials Needed:

- 1) Each survey copied (Keep one for yourself with the students name on them for their file). Make sure the names are blackened or cut off.
- 2) Survey Statistical Worksheets – 1 for each group

#### Opening Activity:

Look at the list of favorite brands of cereal. Have the students write down all of the different kinds of possible answers. Create a tally chart next to each kind of cereal with a total number of responses.

#### Activity:

- 1) Pass out the surveys from all of the classes so that they are divided amongst the groups. Each group should have the same number of surveys.
- 2) Ask the students what they think an outlier is. Explain that an outlier is a number that is far above or below the other data. Give the example of the ages in the classroom. Your age would be considered an outlier because it is far above the other data.
- 3) Have each group create a frequency table for each question. The students should throw out all outliers. You might want to give each group the Statistical Survey Worksheets that have some of the possible answers. (One is available on pages 11-20). Possible answers are listed in the Statistical Survey worksheets. The students should write down how many surveys answered each question. Some questions will require the group to write down all possible answers. They should try to group the answers into categories if there are many different answers. For example, using the question “what is your favorite pop?” the responses might be:

Coca-Cola – 6	Pepsi – 4	7UP – 8
Root Beer – 1	Ginger Ale - 1	Sprite – 1

In this example, the latter three sodas could be grouped under the category of “other.” In addition, be sure the students keep a tally of the boys versus the girls.

**Closure:**

Each group should give a report to the class on their finding. While they are giving their report, keep a class tally on the chalkboard from the surveys. You might want to keep a separate class tally for each class so as to keep track of different counts from the students.

During the final class of the day, the teacher should show the different class tallies and find an average tally for each question on the survey. Be sure to write the final tallies on a sheet of butcher paper to keep until later. You might want to type up a tally sheet for each table.

**\*Note to the teacher:**

Go through the surveys yourself and make the total, total boys and total girls for each question.



**Survey and Statistics**  
**Lessons 2,3,4,6 & 8**  
**Statistical Survey Worksheets**  
**DO NOT LOSE THIS WORKSHEET!**

Question	Total	Boys	Girls
1) What school did you go to last year?			
_____			
_____			
_____			
_____			
<b>TOTAL</b>			

Question	Total	Boys	Girls
2) How many schools did you attend during elementary?			
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13 or more			
<b>TOTAL</b>			
<i>Mean</i>			
<i>Median</i>			
<i>Mode</i>			
<i>Range</i>			

**Survey and Statistics**  
**Lessons 2,3,4,6 & 8**  
**Statistical Survey Worksheets**  
**DO NOT LOSE THIS WORKSHEET!**

Question	Total	Boys	Girls
3) How many people live in your house?			
2			
3			
4			
5			
6			
7			
8			
9			
10 or more			
<b>TOTAL</b>			
<i>Mean</i>			
<i>Median</i>			
<i>Mode</i>			
<i>Range</i>			

Question	Total	Boys	Girls
4) How many children live in your house?			
1			
2			
3			
4			
5			
6			
7			
8			
9 or more			
<b>TOTAL</b>			
<i>Mean</i>			
<i>Median</i>			
<i>Mode</i>			
<i>Range</i>			

**Survey and Statistics**  
**Lessons 2,3,4,6 & 8**  
**Statistical Survey Worksheets**  
**DO NOT LOSE THIS WORKSHEET!**

Question	Total	Boys	Girls
5) How many adults live in your house?			
1			
2			
3			
4			
5 or more			
<b>TOTAL</b>			
<i>Mean</i>			
<i>Median</i>			
<i>Mode</i>			
<i>Range</i>			

Question	Total	Boys	Girls
6) How many pets do you have in your house?			
0			
1			
2			
3			
4			
5			
6			
7			
8			
9 or more			
<b>TOTAL</b>			
<i>Mean</i>			
<i>Median</i>			
<i>Mode</i>			
<i>Range</i>			

**Survey and Statistics**  
**Lessons 2,3,4,6 & 8**  
**Statistical Survey Worksheets**  
**DO NOT LOSE THIS WORKSHEET!**

Question	Total	Boys	Girls
7) What is the marital status of your parents?			
Married			
Divorced			
Never Married			
Widowed			
<b>TOTAL</b>			

Question	Total	Boys	Girls
8) How many brothers do you have?			
0			
1			
2			
3			
4			
<b>TOTAL</b>			
<i>Mean</i>			
<i>Median</i>			
<i>Mode</i>			
<i>Range</i>			

Question	Total	Boys	Girls
9) How many sisters do you have?			
0			
1			
2			
3			
4 or more			
<b>TOTAL</b>			
<i>Mean</i>			
<i>Median</i>			
<i>Mode</i>			
<i>Range</i>			

**Survey and Statistics**  
**Lessons 2,3,4,6 & 8**  
**Statistical Survey Worksheets**  
**DO NOT LOSE THIS WORKSHEET!**

Question	Total	Boys	Girls
10) What is your favorite subject?			
Math			
Social Studies			
Language Arts (reading, writing, spelling)			
Science			
Art			
Physical Education			
Other			
<b>TOTAL</b>			

Question	Total	Boys	Girls
11) What is your worse subject?			
Math			
Social Studies			
Language Arts (reading, writing, spelling)			
Science			
Art			
Physical Education			
Other			
<b>TOTAL</b>			

Question	Total	Boys	Girls
12) Do you have any brothers or sisters at this school?			
Yes			
No			
<b>TOTAL</b>			

**Survey and Statistics**  
**Lessons 2,3,4,6 & 8**  
**Statistical Survey Worksheets**  
**DO NOT LOSE THIS WORKSHEET!**

Question	Total	Boys	Girls
13) How many times a week does your family sit down together at the table for dinner?			
	0		
	1		
	2		
	3		
	4		
	5		
	6		
7			
<b>TOTAL</b>			
<i>Mean</i>			
<i>Median</i>			
<i>Mode</i>			
<i>Range</i>			

Question	Total	Boys	Girls
14) How many times a week do you eat breakfast?			
	0		
	1		
	2		
	3		
	4		
	5		
	6		
7			
<b>TOTAL</b>			
<i>Mean</i>			
<i>Median</i>			
<i>Mode</i>			
<i>Range</i>			

**Survey and Statistics**  
**Lessons 2,3,4,6 & 8**  
**Statistical Survey Worksheets**  
**DO NOT LOSE THIS WORKSHEET!**

Question	Total	Boys	Girls
15) On the average, how many hours of television do you watch a day?			
0			
1			
2			
3			
4			
5			
6			
7 or more			
<b>TOTAL</b>			
<i>Mean</i>			
<i>Median</i>			
<i>Mode</i>			
<i>Range</i>			

Question	Total	Boys	Girls
16) What kind of grades in math did you get last year?			
A or highest mark			
B or second highest mark			
C or third highest mark			
D or fourth highest mark			
F or lowest mark			
<b>TOTAL</b>			

Question	Total	Boys	Girls
17) How many days of school did you miss last year?			
0-2			
3-5			
6-8			
9 or more			
<b>TOTAL</b>			
<i>Mean</i>			
<i>Median</i>			
<i>Mode</i>			
<i>Range</i>			

**Survey and Statistics**  
**Lessons 2,3,4,6 & 8**  
**Statistical Survey Worksheets**  
**DO NOT LOSE THIS WORKSHEET!**

Question	Total	Boys	Girls
18) On a scale of 1-10, with 10 being the worst, rate how well you behave in school.			
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
<b>TOTAL</b>			
<i>Mean</i>			
<i>Median</i>			
<i>Mode</i>			
<i>Range</i>			

Question	Total	Boys	Girls
19) How many states have you lived in during your life?			
0			
1			
2			
3			
4			
5			
6			
7			
8 or more			
<b>TOTAL</b>			
<i>Mean</i>			
<i>Median</i>			
<i>Mode</i>			
<i>Range</i>			

**Survey and Statistics**  
**Lessons 2,3,4,6 & 8**  
**Statistical Survey Worksheets**  
**DO NOT LOSE THIS WORKSHEET!**

Question	Total	Boys	Girls
20) What is your favorite type of food?			
Fast /junk food			
Italian,			
Mexican			
Oriental			
Seafood			
Sweets			
<b>TOTAL</b>			

Question	Total	Boys	Girls
21) What is your favorite type of music?			
country			
rap			
rhythm and blues			
new-age			
retro			
hip-hop			
pop			
Spanish			
alternatives			
oldies			
rock/heavy metal			
jazz/classical			
<b>TOTAL</b>			

Question	Total	Boys	Girls
22) Do you like working in a group or by yourself?			
Group			
By self			
<b>TOTAL</b>			

**Survey and Statistics**  
**Lessons 2,3,4,6 & 8**  
**Statistical Survey Worksheets**  
**DO NOT LOSE THIS WORKSHEET!**

Question	Total	Boys	Girls
23) When you are in a group, do you tend to lead the group, follow or both?			
	Lead		
	Follow		
	Both		
<b>TOTAL</b>			

Question	Total	Boys	Girls
24) On a scale of 1-10, how well do you think you can read. (10 being really good.)			
	1		
	2		
	3		
	4		
	5		
	6		
	7		
	8		
	9		
	10		
<b>TOTAL</b>			
<i>Mean</i>			
<i>Median</i>			
<i>Mode</i>			
<i>Range</i>			

Question	Total	Boys	Girls
25) Are you a boy or a girl?			
	Boy		
	Girl		