

## Pre Stats 3.5a

## A Class Poll

This pollster project can be as simple or as extensive as you choose to make it. Your question and sample could go to the class, several classes, or the entire school, to students, parents, other.

### Steps

- 1) Have a pollster or visiting speaker talk with the class about the right way to take a poll. The visiting pollster should give the students ideas about what they could ask in a poll, how large a sampling to take, how to take the sampling. (See sample questionnaire below.)
- 2) Do the Pre-poll vocabulary and questions below.
- 3) Brainstorm ideas about what to put in the survey.
- 4) Decide on the major question.
- 5) Decide on the population and the sample. If telephone numbers are required, get them from the school office.
- 6) Prepare the questionnaire—design the questions to find out who is answering.
- 7) Collect and organize the data
- 8) Prepare the graphs
- 9) Examine the graphs
- 10) Draw and present the conclusions

### Analyzing and presenting the data:

After all of the surveys have been completed and the data has been recorded, it is time to analyze the data. Be sure all data is put together. You could have a giant master copy of the survey where you record everyone's results--students could be assigned portions of the analysis, or you could put it all on computers.

You must decide as a class what information is most important. Write up the list of analysis questions together. The more creative you are, the more fun and interesting this is.

## I. Pre-Poll Vocabulary and Questions

1) Explain each of the following in your words.

survey

poll

population

sample

biased survey

unbiased survey

2) You want to determine the most popular brand of athletic shoe. Which of the following samples would you choose. Explain your choice. Explain why you didn't choose the others.

- Every tenth person who comes into the a shoe store.
- Ten of the girls basketball team.
- All the students wearing sneakers.
- Ten of your friends.

3) You are trying to find out who would come to an evening school play performance. Which of the following samples would you choose. Explain your choice. Explain why you didn't choose the others.

- Fifty people at the local supermarket.
- Five adults from several randomly selected streets around the school area.
- Random names from the school telephone directory.
- Place questionnaires at local stores with a sign asking people to fill them out and drop in a box.

## II. Sample parent Letter

Dear Parents,

In our math classes we are studying statistics and the importance and used of taking surveys. The students were given the opportunity to decide on a topic they would like to survey for a class project. The students decided they would like to know how parents feel about school uniforms. This is their project, so with approval of the administration, we will be doing a survey. About half of the families with students attending this school will be called and will be asked to answer a few questions regarding school uniforms as well as demographic type questions. The students will be given phone numbers but will not be given names of anyone they are calling. This will be anonymous. I do hope you will support the students by participating if called. If you would like to see a copy of the survey or would like any further information, please feel free to call the school. Thank you.

Sincerely,

**III. Sample Questionnaire:** Place the call. Identify yourself and explain that you are taking a survey for your school math class. Ask for a few minutes of their time. Say please and thank you. Do not make comments during the interview.

- 1) Are you male or female?
- 2) Do you think the students at 'sample' middle school should wear uniforms to school? Yes          No          Don't Know
- 3) Would you support a decision to wear uniforms by having your children wear uniforms to school? Yes          No          Don't Know
- 4) Which of the following age categories fits your age?  
20-29   30-39   40-49   50-59   60-69   70-79   80 and older  
Refuse to answer
- 5) Which of the following best describes your formal education?  
Some high school    High school graduate    Some college or technical school  
Technical school graduate    Bachelor's degree    Graduate degree  
Refuse to answer
- 6) Which political party are you affiliated with?  
Republican    Democratic    Independent    Other    None    Refuse to answer
- 7) Which of the following religions best describes you?  
Catholic    Protestant    Mormon    Jewish    Hindu    Muslim    Other  
Refuse to answer
- 8) Which of the following best describes your total household income?  
Under \$20,000          21,000 to 30,000          31,000 to 40,000  
41,000-50,000          51,000 to 60,000          61,000 to 81,000  
over 80,000          refuse to answer
- 9) Do you own or rent?  
Own          Rent          Other          Refuse to answer

#### IV. Sample Data Analysis Questions:

- 1) What percent of respondents think the students should wear school uniforms?
- 2) What percent of respondents would support school uniforms?
- 3) If the answers to number 1 and 2 above are different, why are they different?
- 4) Does one political party support uniforms more than others? If so which ones?
- 5) Does one religious group support uniforms more than others? Which one?
- 6) Does the income of the respondent seem to affect their preference to uniforms?  
Explain what you found.
- 7) Is there a correlation between income and education?
- 8) Who agreed with school uniforms more, men or women?
- 9) If you look at those who own as opposed to those who rent, does one group favor uniforms over another?\_\_\_\_\_ Comment on the answer.
- 10) Make up a question of your own that you could answer from the survey.