

## **COMPUTERIZED GRAPHICS: SURVEY OF PRETEEN TASTES**

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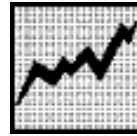
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## **Program Outline**

**Grade Level:** This project is specifically for students in the sixth grade, but could easily be used for grades 5-12 with children who are familiar with computers.

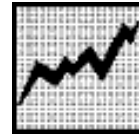
**Students:** The group of lessons enables students to graph their surveys of school-aged children from 10-12 using both traditional means and technology. It could easily be adapted for use in any curriculum and with both younger and high-school-age students. Graphs can be used to plot or display information. The children work separately and in a group so that they will learn to work cooperatively. They assemble information, practice critical thinking, and collate and examine data. They put their information on a spreadsheet and then graph that information. The project uses different modes of learning, taking into account that children have different levels of intelligence. ESL children would be paired with others who speak their language, to build self-esteem. Children with physical disabilities could be included and just survey the children in the classroom.

## **Major Goals and Overview**

In sixth grade, as part of the CIMS Curriculum in Mathematics, the children are taught to read charts and different types of graphs, and to design various types of graphs. When focusing on this part of the curriculum, teachers try to incorporate the *Performance Standards for Math and English* using both the city and state standards.

After teaching the skills in the traditional manner using my CIMS manual and textbook, I wanted to incorporate computer technology and thus implement many more of the New Standards. This also makes it more interesting and challenging to the class.

The students succeeded in demonstrating a successful learning experience using both sets of standards, which is evident in the various tasks that they attempted and accomplished. The students need to work in groups where they practice all the elements of participating in conferences and group meetings. They brainstormed and came up with appropriated ideas and



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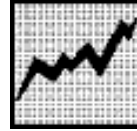
strategies that they were about to conduct. They also implemented their ideas on a school-wide basis using the surveys that each group designed.

I held conferences with the groups and individuals to help draft their surveys and give my opinion on the various topics. After developing the graphs of the results, the groups then presented their findings orally, which exhibited presentational skills, and the class discussed them. The children demonstrated knowledge of math concepts through their charts and graphs, and then analyzed their work. They worked successfully in groups during assigned time, which proves that they are able to plan and carry out their plan. Reading the graphs and discussing their results displays closure. This undertaking was an interdisciplinary project.

**Timeline**

The project needs different amounts of time, depending on the children's technical ability and experience in working cooperatively with a group. The amount of time also depends on the method used to conduct the survey. My class was asked to survey 100 children ages 10-12, and the students were able to do this during lunch and line-up time.

<b>Time Frame</b>	<b>Objectives</b>
Two periods	Reviewed charting and graphing using CIMS. Students picked topics to be surveyed.
Several hours	Students surveyed and collected information on their own time in and out of school.
One – two periods	Demonstrated on the computer. Students asked questions.
Two-three periods	Students made their charts and graphs.
Two periods	The groups presented their graphs and the class discussed the information. .



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## **Assessment**

The assessment was ongoing during the groups' meetings and while they generated their graphs. They were given one mark for their work as a group while they compiled the information and made the charts and graphs. As the children worked, I constantly monitored their progress. They cooperatively helped each other, and the group's leaders were very effective in handling any problems or disagreements. I also scored each group's work using a rubric when they did their presentations.

### **RUBRICS USED:**

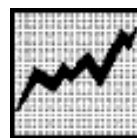
Two different scores were given for each group's project. The projects were scored from 1%-100%.

#### **The first score included:**

Follow instructions  
Gathering information  
Working cooperatively with a group  
Thinking critically

#### **The second score included:**

Analyzing and interpreting data  
Presenting findings to the class



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## **Lesson Plans**

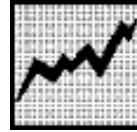
The lesson plans consisted of four different tasks that were to be explained and taught. The first part dealt with the survey. After the collection of the information, the children were taught how to chart their information using the computer. The children were then instructed how to make graphs using their charts with the computer. The last component was when the groups explained their findings and displayed their graphs and the class discussed the project as a whole. The children should be used to working cooperatively and with little direction. This only occurs if they understand the necessary dynamics of group work and are in the habit of working with their peers successfully. I also believe that charting and graphing skills should be taught traditionally before undertaking the tasks on the computer. This way the children already understand the skills and can successfully apply them using a new tool, the computer.

### **Surveying the Preteen Children**

***Objectives: 1-Reviewed charting and graphing using CIMS. Students picked topics to be surveyed.***

***Time: About two periods***

- 1- We reviewed how to chart and graph traditionally, using CIMS and a textbook.
- 2- The children were divided into groups of four, taking into account varied abilities in math and computer skills.
- 3- The group assigned different children varied tasks to accomplish. There was a leader, a secretary, an individual who worked on the computer, and a person who would present their findings. In this way, the children were gathering information, thinking critically, and analyzing and interpreting data.
- 4- We discussed a variety of topics to investigate dealing with children of their own ages. They were listed on the board and the groups picked the one they were most interested in learning about.



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## ***2-Objectives: Students Surveyed and Collected Data***

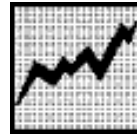
***Time: Several hours***

- 1-The children were told to survey 100 students, ages 10-12, giving each individual about four choices.
- 2-The groups worked together and decided the four choices so that they could be catalogued.
- 3-They went around the room and surveyed the class.
- 4-They surveyed the other children during lunch and outside of school on their own time.
- 5-They came back to the classroom with their results and charted them.

## ***3-Objectives: Demonstrations on the Computer***

***Time: One -two periods***

- 1-I demonstrated on one computer.
- 2-Three members of different groups worked on the other three computers.
- 3-We opened *Claris* and clicked on *Spreadsheet*. We put information onto the spreadsheet.
- 4-We highlighted cell A1to B4.
- 5-We clicked on *Options* and selected *Make Chart*.
- 6-The bar graph was already selected.
- 7-We clicked on OK.
- 8-By double clicking on the middle of the graph, the *Chart Option* box comes onto the screen.
- 9-We chose the *Series* button and then clicked on *Label Data*.
- 10-We clicked on *Labels* and then removed the "x".
- 11-We picked *OK* and proceeded to the middle of the chart and dragged it directly under the data.



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- 12- We went to *File* and dragged to *Save As*, and saved it on a floppy disc with a graph name.
- 13- It was printed by going to *File* and *Print*.
- 14- We did the same procedure and made pie graphs.
- 15- The children copied the notes that were put on the board and asked questions.

***4: Objectives: Students made their charts and graphs.***

***Time: Two-three periods***

- 1- The children used their notes and traditional charts and each group went up to one of the computers and completed the chart and graph.
- 2- Since we only have four computers, it took several periods to accomplish this task.

***5-Objectives: The groups presented their graphs and the class discussed the information.***

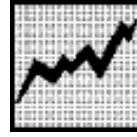
***Time: Two-three periods***

- 1- Each group presented their findings and showed the class their graphs and charts.
- 2- The class discussed each of the surveys. Some of the findings were surprising and many of the children had different choices that they would have presented.
- 3- I asked the children their reaction to the project and we discussed their feelings.
- 4- We talked about other curriculum areas that their new knowledge could be used for and made tentative plans to use charting and graphing in math and social studies.
- 5- I passed around a paper and asked them to describe their feelings about the project in a few words or a short paragraph.

***6-Problems:***

- 1- It was very difficult to demonstrate the procedure for charting and graphing to the whole class using the small computer screen. It would have been much more effective using a converter on my computer and transposing the picture onto a t.v. screen.
- 2- The graphs would have been more interesting with a color printer rather than a black and white one.





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## *Quotes About the Project*

*“I liked asking the kids about the survey.”*

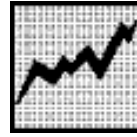
*“I thought the best part was asking questions and working on the computer.”*

*“It was fun working in a group, but the bad part was there was a boy in our group.”*

*“I liked working with other people and making graphs.”*

*“This project was really interesting because it was a group project.”*

*“I liked working with people and it was fun seeing what kids liked.”*



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*“We made charts on the computer!”*

*“I learned a lot from the graphs that the other kids showed us, and I had a lot of fun!”*

*“I thought the best part was asking the questions and then seeing it as a graph.”*

*“I liked working in groups, but I need some more boys in my group.”*

*“It was fun working with all of my friends.”*

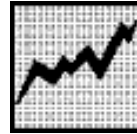
*“I liked working with other people who were different from me.”*

*“This project was real interesting because it was a group project.”*

*“I liked working with other people and seeing their personalities.”*

*“We learned how to make bar and pie graphs on the computer. It was great!”*

*“It was fun seeing what kids liked.”*



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## **Samples**

### **Survey Questions and Choices**

**1-What is your favorite music group?**

A- BSB

B- 98 Degrees

C- N' Sync

D- Korn

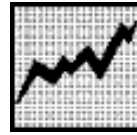
**2-What movie did you enjoy most?**

A- Scream

B- TS2

C- Titanic

D- Pokemon



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**3-What music do you prefer?**

- A- Pop
- B- Alternative
- C- Rock
- D- R&B

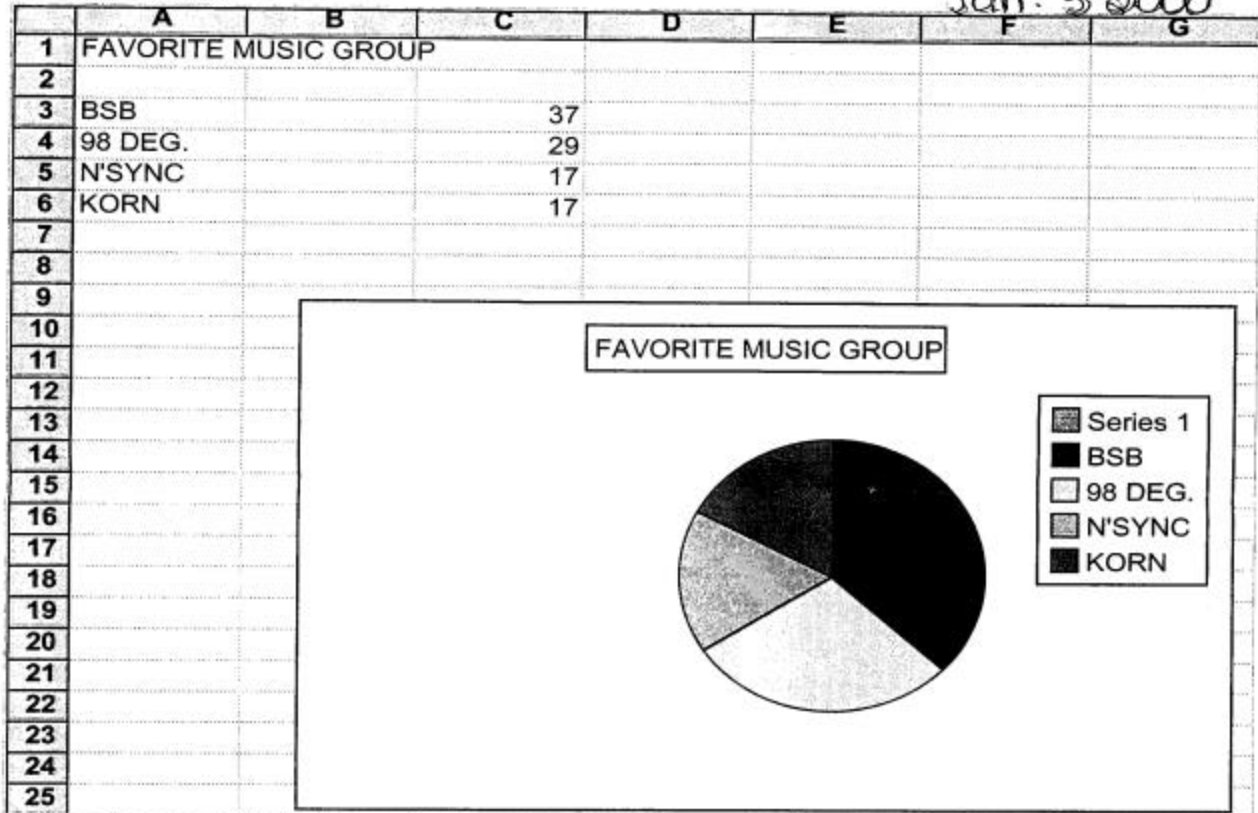
**4-What fast-food restaurant do you like the most?**

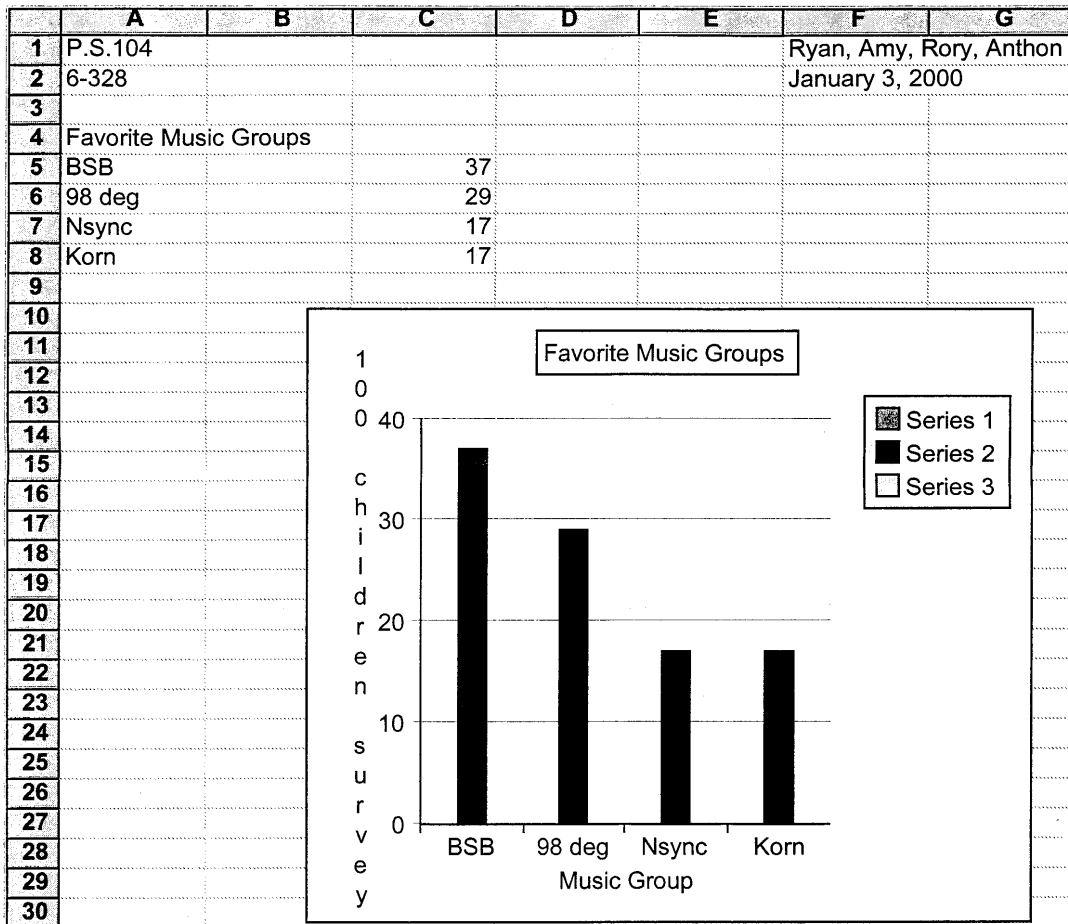
- A- McDonald's
- B- Burger King
- C- Taco Bell
- D- KFC
- E- Domino's Pizza

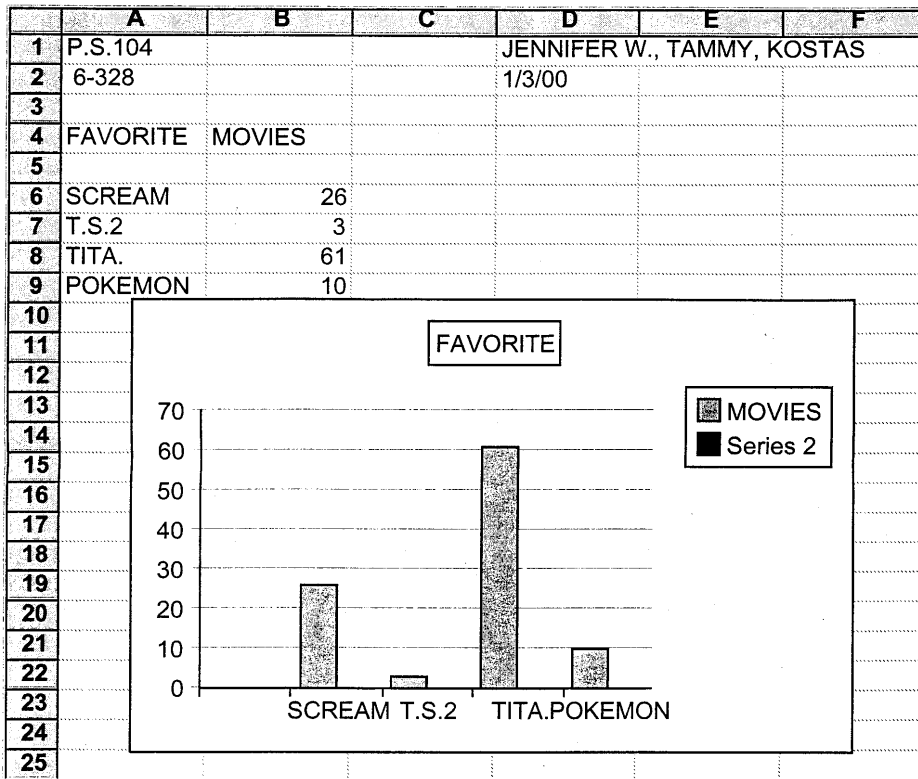
# Samples of Children's Charts and Graphs

P.S. 104  
6-328

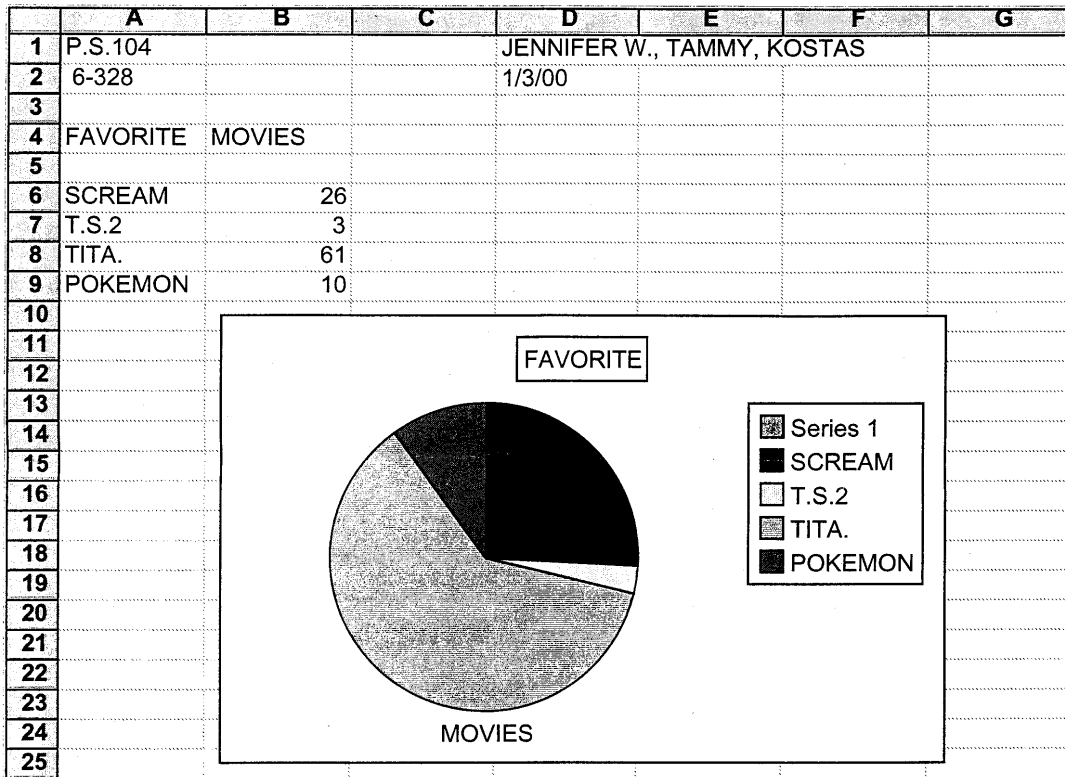
Ryan, Amy, Rory, Anthony  
Jan. 3, 2000

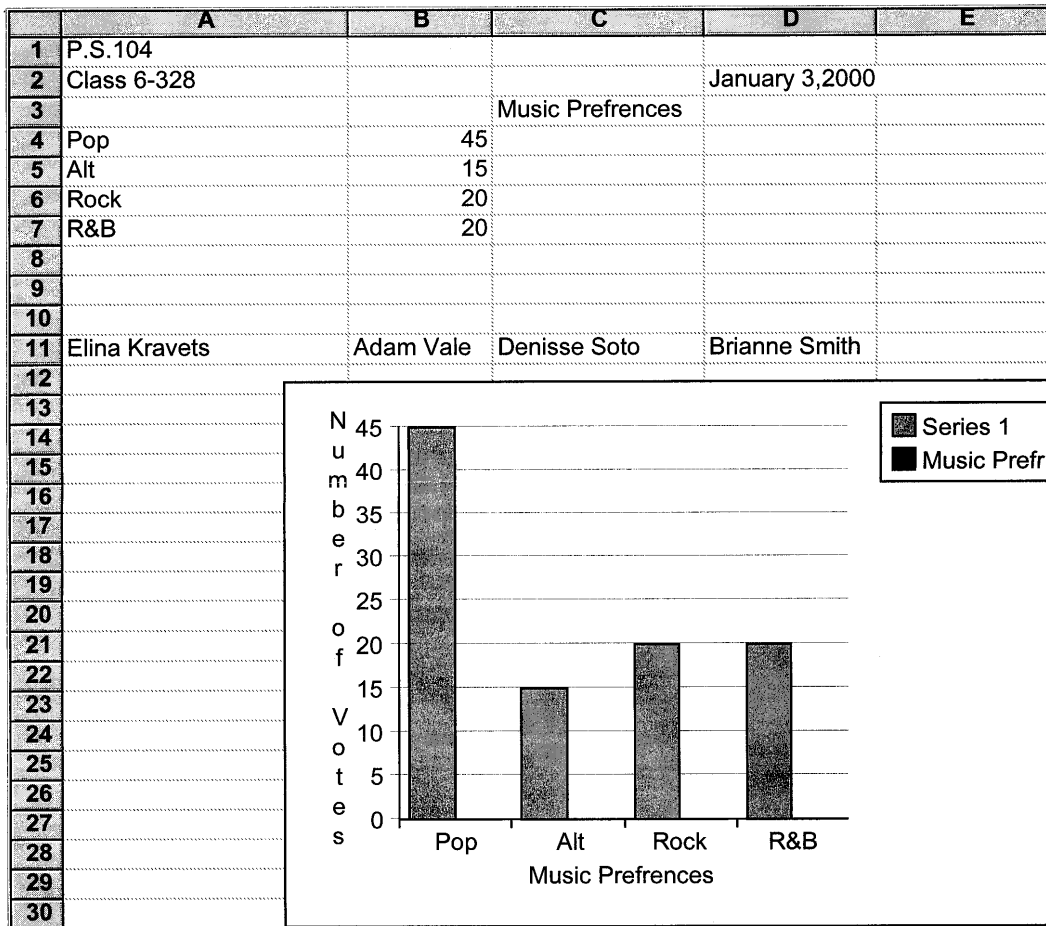




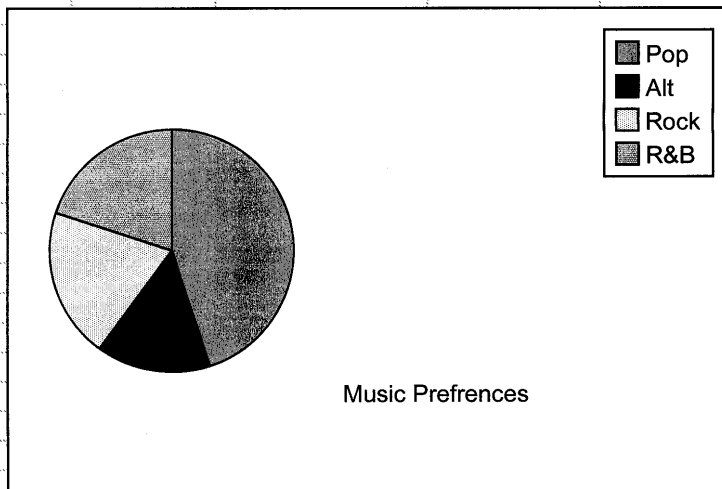


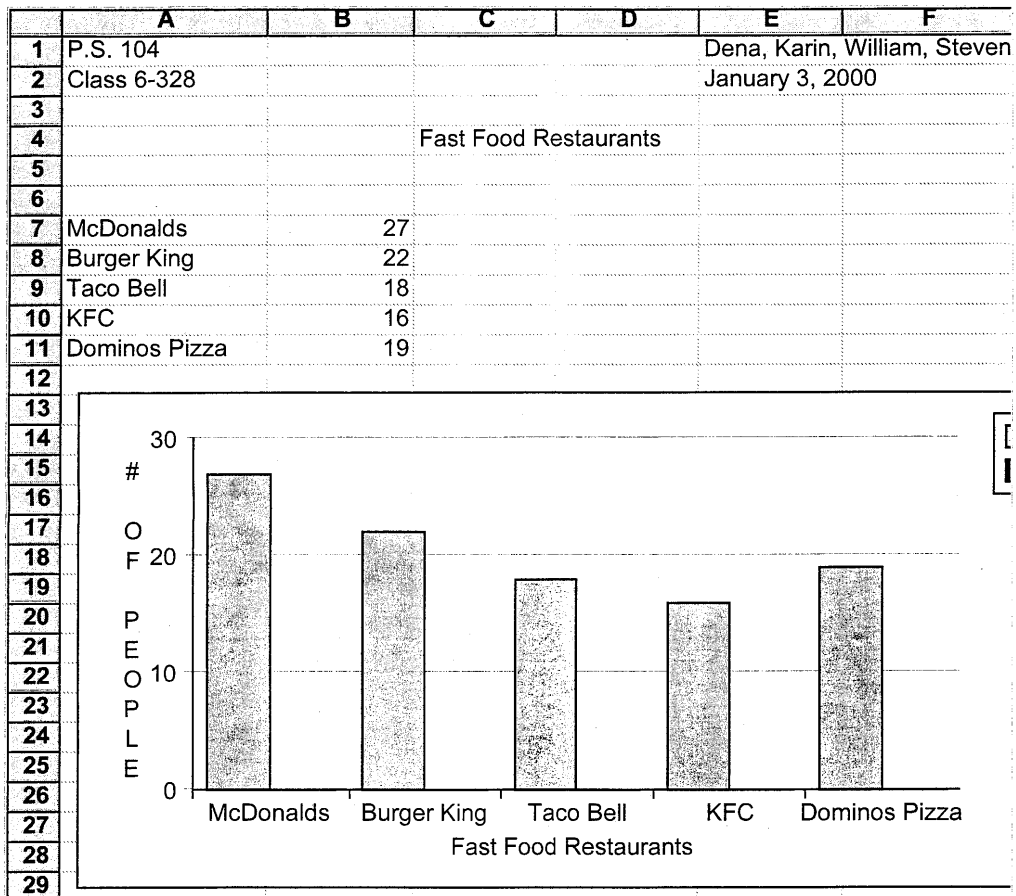


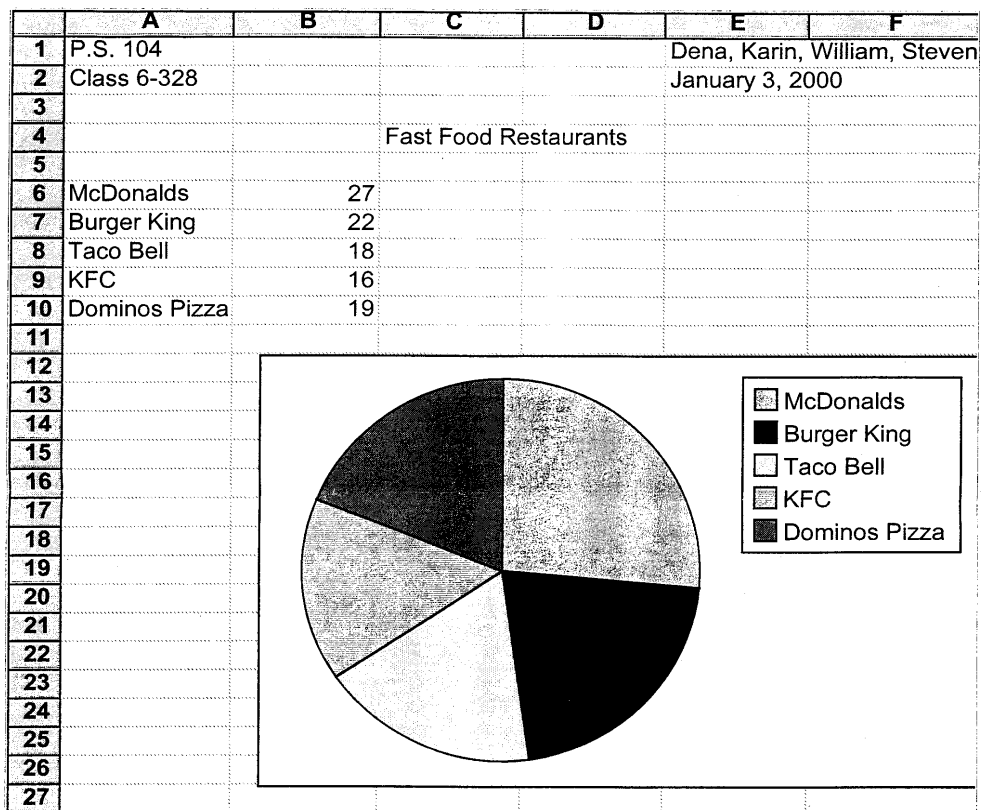


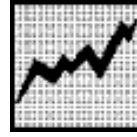


	A	B	C	D	E
1	P.S.104				
2	Class 6-328			January 3,2000	
3			Music Preferences		
4	Pop	45			
5	Alt	15			
6	Rock	20			
7	R&B	20			
8					
9					
10					
11	Elina Kravets	Adam Vale	Denisse Soto	Brianne Smith	
12					
13					
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## **Resources**

Class 6-328

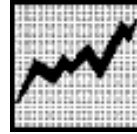
Preteen population at PS 104

Claris Works or Excel in Microsoft Office

Scanner to scan children's graphs

Floppy discs

Lexmark Laser Printer



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