

TECHNOLOGY OPERATIONS AND CONCEPTS LESSON / SIMULATION TEACHER GUIDE PART 1

NETS TECHNOLOGY OPERATIONS AND CONCEPTS STANDARDS

Students demonstrate a sound understanding of technology concepts, systems, and operations.

- Understand and use technology systems
- Select and use applications effectively and productively
- Troubleshoot systems and applications
- Transfer current knowledge to learning of new technologies



INTRODUCTION

Students are invited to participate in organizing a music library.

Instruction	Illustration
<p>My Music Library</p> <p>Today we are going to work together to organize a music library. We will have music from different styles or genres that we will organize in a manner that is easy to manipulate, or change. To continue please select the arrow</p>	An illustration for a music library simulation. At the top, it says "MY MUSIC LIBRARY" in a gold, serif font, with the subtitle "Organizing my music with spreadsheets" below it. The background is dark with glowing red and orange musical notes and a treble clef. Several album covers are shown, including Jason Derulo, Rihanna, T-Pain, and Jonas Brothers. A large blue arrow button is in the bottom right corner.

First let's discuss what software we would use to make a music library. This can be tricky so please evaluate each option carefully. Would we choose Microsoft Word, Spreadsheets, Google Presentations, or Microsoft Publisher? (Pause)

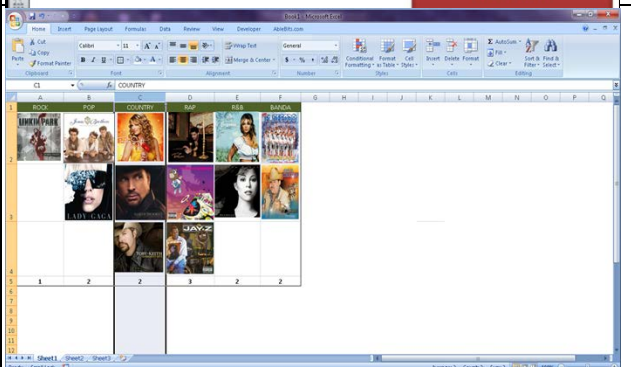
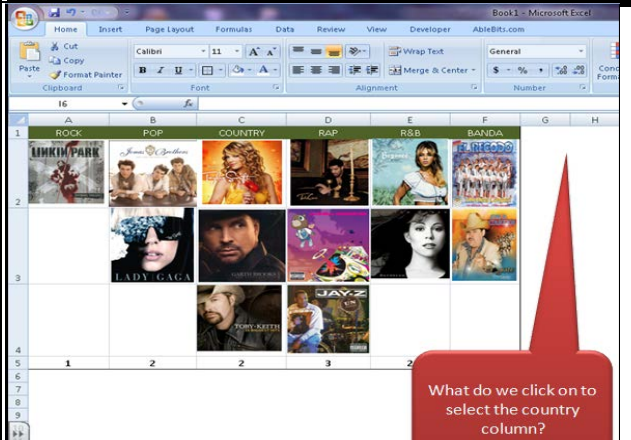
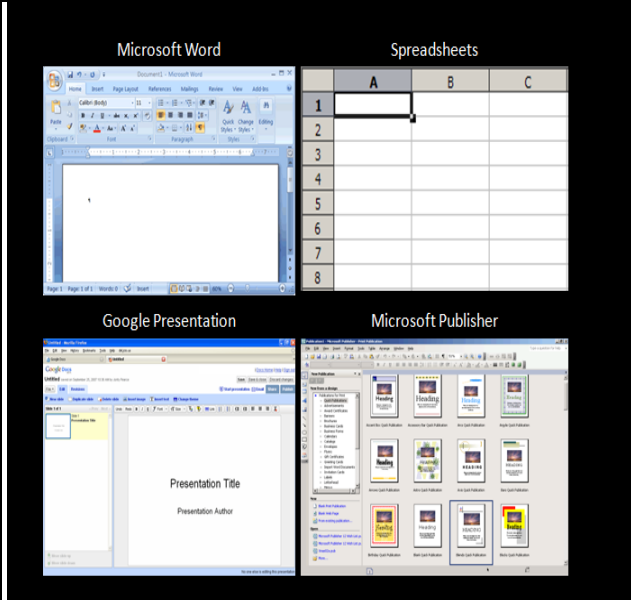
- Word is a great tool to write letter, summaries, and essays, but it does not allow us to easily manipulate or change information.
- Spreadsheets allow the user to type in information into boxes, also known as cells, we can filter and sort the information in these cells by columns and rows
- Google Presentations is a fabulous tool to use when one is presenting information on a topic
- Publisher allows the user to make a number of different publications such as; brochures, pamphlets, and newsletters.

After looking at all 4 options, spreadsheet is the correct answer, because they allow you to organize information that is typed into the cells by columns and rows.

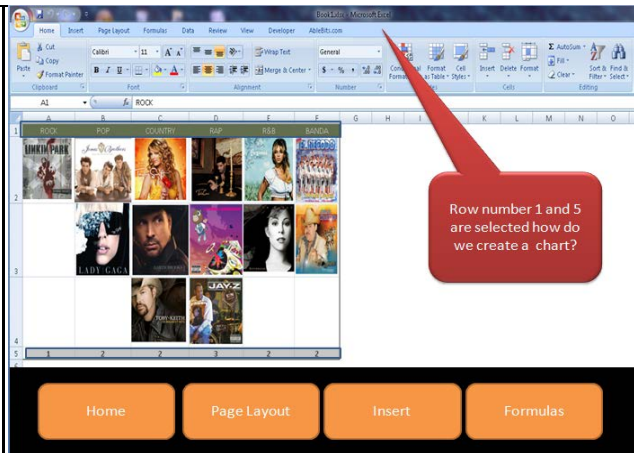
Great, we have now begun our music library; we have the music set up in columns based on genres. Columns are identified by letters of the alphabet and rows are identified by numbers. If I wanted to select the whole column titled country, where would I click?

Wonderful, if I want to select the entire column labeled country I would select the column C. Now we are going to get into the organization of the music. We have selected the Country column, we now need to filter and sort the information. What this means is that I would like to find specific information or DATA on the column I have chosen. I must find where I need to click. Look at the options below and click on the correct option. Here is a hint, there are always 2 ways to get to the same place. (pause) You could have chosen:

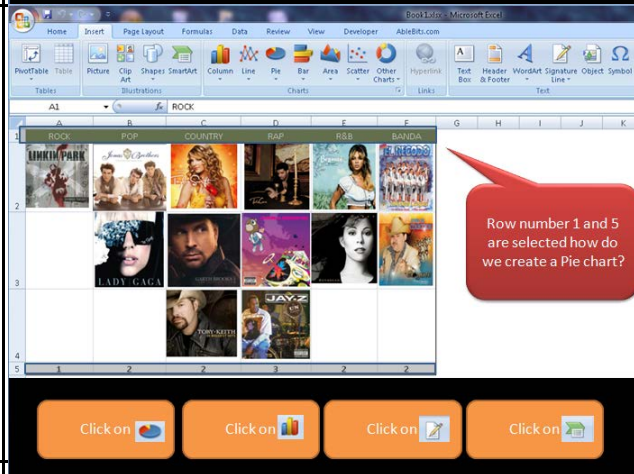
- Click on Sort and Filter in the Home Ribbon
- Click on Data then Sort



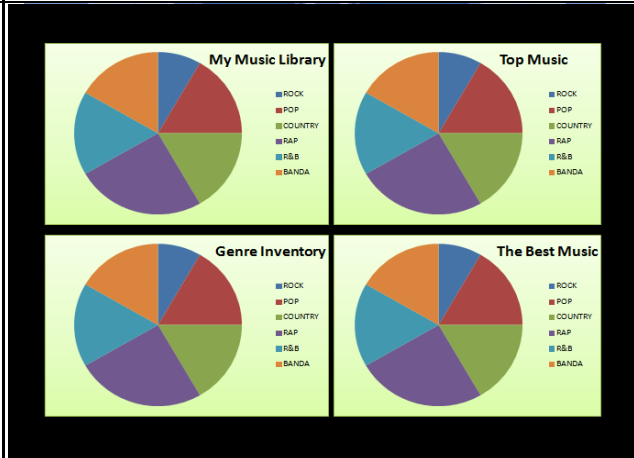
We have now sorted and created some data from the columns in our spreadsheet. If I look at Row #5 I will see numbers, can you explain what data those numbers are giving us? (pause discuss) That's right the numbers shown are the number of albums in each genre, Rock-1, Pop-2, Country-3, Rap-3, R&B-2, and Banda-2. Now I would like to create a chart on that information and put it in this spreadsheet...what tab would I most like find the option, to create and insert a chart?



If you wanted to add, or insert a chart you would select the insert tab. In the insert tab you have several options for charts. We are looking for a Pie Chart. At the bottom of the screen select the symbol that represents a pie chart.



We are well on our way to organizing the data from our music library. We have these 4 pie charts. Each chart shows the same information; however, we need to select a title for the pie chart. Remember we have split the information up based on the styles of music. Let's go through the titles: My music library, top music, Genre Inventory, the best music. Which of the 4 titles would make the most sense? We would want to select Genre Inventory because our data tells us what the genre are music is in and how many albums we have in each genre.



Great, we have now created a pie chart to help us organize our music library. As we house all our music in this spreadsheet, we realize that we need to insert another column for a new album that we have purchased; this new album does not fit into any of the existing genres. What are the steps that I need to take to insert a new column. Look at the options below carefully and select the steps needed to add a column

Row number 1 is selected how do we insert a new row?

Click on Wrap Text under alignment group Click on Copy under clipboard Group Click on Format under Cells Group Click on Insert under Cells Group

Our next step is to add a title to the entire spreadsheet, every time I do this, the title starts off to the left. I would like to fit my title across all the columns, by merging the cells and then center it. Look at the options below...what option would allow me to center my title and merge the cells? That's right I would select merge and center

The title does not fit on one cell, how do we combine the cells in to one?

Click on Copy Click on Fill Click on Wrap Text Click on Merge & Center

We are almost done! We have worked a lot with columns; however I need to know what row is missing only a Rock Genre CD cover. Take a look at the rows and select the appropriate row.

Click on the number for the row that is missing a Rock Genre CD cover.

Congratulations you have completed organizing your music library with spreadsheets. Please show your teachers that you have completed the lesson.

