Empowerment Technologies

Quarter 1 - Module 2: Applied Productivity Tools with Advance Application Techniques
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Empowerment Technologies
Quarter 1 - Module 2:
Applied Productivity Tools with Advanced Application Techniques

This instructional material was collaboratively developed and reviewed by educators from public and private schools, colleges, and universities. We encourage teachers and other education stakeholders to email their feedback, comments, and recommendations to the Department of Education at action@deped.gov.ph.

We value your feedback and recommendations.
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What This Module is About

Welcome to this module learners!

On this module, the learner will learn the techniques in using computer application like hyperlinking in presentations and adding formulas in spreadsheet application. In order to learn all of this, for every computer application introduce on this module learner will be guided by step by step activities.

These are the application use on this module:

- Microsoft Word
- Microsoft PowerPoint
- Microsoft Excel

What I Need to Know

At the end of this module, you should be able to:

1. Understand the different uses of productivity tools.
2. Perform the following: Encoding, Apply Mail Merge, add custom animation, hyperlink, insert images in work processor and use of advance formulas in Microsoft excel.
3. Appreciate the usage of productivity tools.

How to Learn from this Module

To achieve the objectives cited above, you are to do the following:

1. Carefully read all the lessons.
2. Take your time on going thru each lesson.
3. Answer the pretest honestly, the purpose of the pretest is for you to determine your prior knowledge before going thru the lessons and activities.
4. If you have a hard time understanding the lessons and activities, please do take a break. Having breaks between lessons and activities will give you some space where you can absorb the lesson well.
5. You can use the internet if you need more information about the lesson.
<table>
<thead>
<tr>
<th>Icons of this Module</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>What I Need to Know</td>
<td>This part contains learning objectives that are set for you to learn as you go along the module.</td>
</tr>
<tr>
<td>What I know</td>
<td>This is an assessment as to your level of knowledge to the subject matter at hand, meant specifically to gauge prior related knowledge.</td>
</tr>
<tr>
<td>What's In</td>
<td>This part connects previous lesson with that of the current one.</td>
</tr>
<tr>
<td>What's New</td>
<td>An introduction of the new lesson through various activities, before it will be presented to you.</td>
</tr>
<tr>
<td>What is It</td>
<td>These are discussions of the activities as a way to deepen your discovery and understanding of the concept.</td>
</tr>
<tr>
<td>What's More</td>
<td>These are follow-up activities that are intended for you to practice further in order to master the competencies.</td>
</tr>
<tr>
<td>What I Have Learned</td>
<td>Activities designed to process what you have learned from the lesson.</td>
</tr>
<tr>
<td>What I can do</td>
<td>These are tasks that are designed to showcase your skills and knowledge gained, and applied into real-life concerns and situations.</td>
</tr>
</tbody>
</table>
What I Know (Pre-Test)

I. **Multiple Choice:**
Directions: Read and answer the questions below. Select the letter of the best answer from among the given choices.

1. What button allows you to see the result of your mail merge even before you print or send it out?
   a. Address book
   b. Preview Results
   c. Greeting line
   d. Start Mail Merge

2. The following are formulas that MS-Excel can understand, EXCEPT.
   a. =Sum(a1+a2)
   b. =average(a1+a2)
   c. =a1+b2
   d. =1a+b2

3. Which of the following button do you select if you want to Open a new document?
   a. 
   b. 
   c. 
   d. 

4. This error value refers to a cell that contains 0 value or blanks.
   a. #N/A
   b. #VALUE!
   c. #NULL!
   d. #DIV/0

5. Which of the following arithmetic operators is use for exponentiation?
   a. +
   b. -
   c. ^
   d. *

6. Which of the following software are commonly used for presentation that contains animation?
   a. Microsoft Word
   b. Microsoft Excel
   c. LibreOffice Calc
   d. PowerPoint

7. Which of the following errors will appear if Excel encounters invalid cell reference.
   a. #REF!
   b. #N/A
   c. #Value!
   d. #######

8. Which of the following errors will appear if Excel encounters invalid cell has inappropriate value was given for the lookup value argument.
   a. #REF!
   b. #N/A
   c. #Value!
   d. #######
9. Which of the following set of effects that can be found in PowerPoint apps?
   a. Mailings                  c. Layout group
   b. Custom Animation          d. Hyperlink

10. A function used to count the number of cells that contains something if the criteria are met.
    a. COUNT                    c. COUNTING
    b. COUNTNOW                 d. COUNTIF

II. True or False:
Directions: In your paper, write the word TRUE if the statement is correct, and write FALSE if the statement is wrong.

___________ 1. LibreOffice is a free and open source software.

___________ 2. Main document is a data source that is used to populate information in the letter.

___________ 3. The default orientation of the document is a Landscape.

___________ 4. You can change the color of display text in a hyperlink.

___________ 5. Formula is an equation that performs operation on worksheet data.

___________ 6. The hyperlink can be a website address at the same time display text.

___________ 7. The default number of worksheets in an excel is 3.

___________ 8. Times New Roman is the default font style in Microsoft Office 2016.

___________ 9. The data source in a mail merge is your mailing document.

___________ 10. The mouse pointer becomes different shapes depending on the task you are performing.
Lesson 1
Developing ICT content for specific purposes

What I Need to Know

Productivity Tools

It refers to the software that people use to create and produce documents, presentations, databases, charts, and graphs.

Productivity tools helps you create professional quality documents, presentation, graphics, and more.

Why should you learn productivity tools?

While there are a wide range of benefits of using productivity tools, the best reason is that it just makes essential, everyday we use computer to do different task for more efficient.

Common productivity tools

1. Microsoft word
2. Microsoft excel
3. Microsoft PowerPoint
4. LibreOffice

In this time, we have many options to use of to explore productivity software, like LibreOffice, a Free and Open Source Productivity Suite, which matches and perhaps could even exceed the overall features, advantages, and benefits of their counterpart.
Although, LibreOffice is a Free and Open Source software, most software available in actual workplace are made from Microsoft. This software is a paid apps, you can visit this site https://www.microsoft.com for more information.

Free and Proprietary Software | Feature Comparison: LibreOffice – Microsoft Office, available here:

https://wiki.documentfoundation.org/Feature_Comparison:_LibreOffice__Microsoft_Office and here: https://goo.gl/4tUz7x

In this module, we are going to learn the following tools/techniques:

<table>
<thead>
<tr>
<th>Tools/Techniques</th>
<th>Use Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mail Merge and label generation</td>
<td>Mass email or printed letters</td>
</tr>
<tr>
<td>2. Custom animation and timing</td>
<td>Enhance viewer experience</td>
</tr>
<tr>
<td>3. Hyperlinking in presentations</td>
<td>Optimizes use of related content and references. Applies to Word/Write document too.</td>
</tr>
<tr>
<td>4. Integrating images and external materials in word processor</td>
<td>Enriches textual content. Also useful in presentation slides and sometimes in spreadsheets.</td>
</tr>
<tr>
<td>5. Embedded files and data</td>
<td>Seamlessly integrates related files</td>
</tr>
<tr>
<td>6. Advanced and complex formulas and computations</td>
<td>Simplifies and automates common tasks.</td>
</tr>
</tbody>
</table>

**Mail Merge**

It is a Word’s way of generating mass mailings. It involves combining a list of names and addresses to individually address to each person / receiver on the list. You can use Mail Merge to create envelopes or address labels, as well as form letters.

Mail Merged involved the following documents;

- Main document – this document contains text and graphics. Example body of the letter.
- Mailing list – this is your data source that is used to populate information in the letter. It contains names and address of the recipients.
- Merged document - this document the combination of the main document
Activity 1 – Mail Merge

Getting Started:

1. Opening Microsoft Word Program. (Click **Start** button, type Word and click **OK**.
2. On the **Mailings** tab, click **Start Mail Merge**, and then select **Letters**. This will allow you to sent letters to a group of people and personalize, the result of the letter that each person receives.

3. In Word, type the body of the letter (example follows) that you want to send to everyone.

   `<Date>`
   
   `<Insert recipient's here>`
   
   `<Insert salutation here>`
   
   thank you for being part of the communities' conservation efforts. Because of your contribution of P 5,000.00, we are pleased to offer you a discount the next time you visit our store.
   
   Sincerely,
   
   JUAN DELA CRUZ

4. Set Mailing List - The mailing list is your data source. It can be a n Excel spreadsheet, a directory of Outlook contacts, and Access database, or an Office address list. It contains the record that Word uses to pull information from to build your letter. In this activity we will focus on MS-Access database.
5. Link your mailing list to your main document.
   - On the Mailings tab, in the Start Mail Merge group, choose Select recipients, and then click Type New List and create new list (input at least 10 recipients and click OK and Save).
   - In the Mail Merge Recipients dialog box, you can make any changes if needed, and then click OK.

6. Adding personalized content to letter.
   - Click Mailings tab, in the Write & Fields group, click Address Block.
   - In the Insert Address Block dialog box, select a format for the recipient’s name that you want to will appear in the letter and choose OK.
5. Link your mailing list to your main document.

- On the Mailings tab, in the Start Mail Merge group, choose Select recipients, and then click Type New List and create new list (input at least 10 recipients and click OK and Save).

- In the Mail Merge Recipients dialog box, you can make any changes if needed, and then click OK.

6. Adding personalized content to letter.

- Click Mailings tab, in the Write & Fields group, click Address Block.

- In the Insert Address Block dialog box, select a format for the recipient's name that you want to appear in the letter and choose OK.

7. Finally, save your document in My Documents or Flash Drive. [click save icon in the Quick Access Toolbar or click Office Button, click save in its full down menu.]

8. Print Activity 2 Mail Merge (Click Office Button, Click Print, in the Print Window/Dialog box, click Print or just press Enter).
Custom Animation

Animation is a simulation of movement created by displaying a series of pictures, or frames. Animation on computers is one of the chief ingredients of multimedia presentations. There are many software applications that enable you to create animations that you can display on a computer monitor. One of this application software are presentation software that you can use to create a slide show for your presentation. Some of the popular software that are available online for free or for purchase are WPS Office, LibreOffice, and MS-PowerPoint.

Steps in applying animation effect to an object:

1. On a slide in Normal view, select the object you want to animate.

2. Select Slide Show – click Animations tab, in the Animation group, select your desired effect or click dropdown button to choose more effects. To preview the animation, click the Preview button to play.

Add a motion path animation effect

You can apply motion path animation effects to an object to move in a sequence that tells an effective story.
Add a motion path to an object
1. Select the object that you want to animate.
2. On the Animation tab, click Add Animation.
3. Scroll down Motion Paths and select one.
   - If you want to create a customize path, Select Custom Path option, and draw path that you want the object to move.

Editing motion paths
1. to do things like to change the direction of the motion path, edit the individual points of the motion path, or to lock ( make it so others can’t change your animation ) or unlock the animation, Effect Options.
2. to preview the motion path, click the object on the slides, and click Animation and select Preview.

Remove an animation effect from an object
1. On the slide in a Normal view, select the object from which to remove the effect.
2. On the Animation tab, in the Animation group, click None to remove the effect.

What’s New

Activity 3 - Slideshow Presentation
Direction: Create your own slideshow presentation that consist of 6 slides. You can choose your own topic for this activity. Also, apply animation effects and motion path to enhance your presentation. Present your output to your teacher.
Hyperlink

A hyperlink or simply a link, is a reference data that the reader can directly follow either by clicking or tapping. Hyperlinks are found in nearly all Web pages, allowing users to click their way from one page to another. In text hyperlinks are often color blue and underlined. When you move the cursor over a hyperlink, whether it is text, button or an image, the arrow cursor should be change to a small hand pointing to the link.

Hyperlinks have to basic parts:

1. The Address – can be webpage, email address, or other location they are linking.
2. The Display – can be picture or shape.

Example:

• https://www.microsoft.com - address
• microsoft - display text
• https://www.microsoft.com - address at the same time display text

Link to a website

1. Opening PowerPoint Program. (Click Start button, type PowerPoint and press Enter).

2. Select the text, shape, or picture that you want to use a hyperlink.

3. Select Insert tab and in the Links group, click Link.
4. Select **Existing File** or **Web page**, and choose the:

- **Text to display**: type the text that you want to appear as hyperlink.
- **ScreenTip**: Type the text that you want to appear when the user hovers over the hyperlink (optional).
- **Current Folder, Browsed Pages**, or **Recent Files**: Select where you want to link to.
- **Address**: if you haven’t already selected a location above, insert the URL for the website you want to link to.

5. Select **OK**.

**Link a slide in the same presentation**

1. Opening PowerPoint program. (click **Start** button, type **PowerPoint** and press Enter)

2. Select the text, shape, or picture that you want to use as a hyperlink.

3. Select **Insert** tab > **Links** group, click **Link** button and select an option:

   - **Place in This Document**: Link to a specific slide in your presentation.
   - **Create New Document**: Link from your presentation to another presentation.
   - **E-mail Address**: Link a displayed email address to open up a user’s email program.

4. Fill in the **Text to display**, **ScreenTip**, and where you want to link to.
5. Select OK.

**Change the color of a hyperlink**

You can also change the color of a hyperlink. If you want to change the display text of a link to blue or any other color.

1. Select the hyperlink you want to re-color.
2. On the **Home** tab of the ribbon, select down arrow next to the Font Color button to open the menu of colors.
3. Select the appropriate color that you want for the hyperlink.

**Activity 4 – Applying Hyperlink**

**Direction:**

1. In the choices below, choose one and;
2. Make a 4 slide presentation
3. Each slide must have words written on it.
4. The fist slide should be the title slide
5. The second, third, and fourth slide should relate to the first second and third topic listed in the group you chose.
6. On each slide, write three sentences on each computer peripherals
7. On each slide, find appropriated clip art to insert that relates to each computer peripherals.
8. On each slide, apply hyperlink that will connect to other slides.
9. Present your output to your teacher.

- Mouse
- Keyboard
- Scanner
Integrating Images

In Microsoft word processing you can do a lot of things to make your documents look good and presentable. One of its function is to integrate image. Word processing refers to an application program for manipulating text-based documents; the electronic equivalent of paper, pen, typewriter, eraser, and most likely, dictionary and thesaurus. Word processors run the scope from simple through complex, but all ease the tasks associated with editing documents (deleting, inserting, rewording, and so on).

Microsoft Word 2016 Interface

Activity 5 – Integrating image

Getting Started:

1. Opening Microsoft Word Program. (Click **Start** button, type **Microsoft Word** and press Enter).

2. Formatting text to no spacing. (Click No Spacing button in Styles group in the Home ribbon).

3. Saving document to Documents/Flash Drive [click  in the Quick Access Toolbar (or Click Office button and click Save As.) then type the Filename “Activity 5 Family Name” in the File Name text box, Click Documents/Flash Drive and click save button or just press Enter].

   *Note: Save your work from time to time, click  in the Quick Access Toolbar for easy and quick saving.*

4. Write at least two paragraphs that describe yourself and/or family with no indentation on the first line of every paragraph.

5. Inserting picture/s of yours and/or your family. (Click Insert ribbon, in the Illustration group click picture then find your picture/s in your flash drive, came, Pictures folder or any other devices/folders).

   *Note: you can scan your pictures or use digital camera or web cam to take pictures.*

6. Use your previous/advance knowledge in editing/enhancing picture, text and background in your document

   *Note: you can do anything you want to make your activity looks elegant and beautiful.*
7. Setting drop cap to text. [(Highlight or blacken the first letter of a paragraph, in the Insert ribbon in Text group, click arrow down beside Drop Cap and select Dropped in the drop-down option.) Do the same procedure in the second paragraph.]

8. Check the margin of the paper for printing. [Click File Button, point to Print button, check the preview page, to go back to normal view, click back button, found on upper left side of your document].

9. Send Activity 4 to the email address of your teacher for checking.
   1. Open any available web browser in your computer (Ex. Internet Explorer, Microsoft Edge, Mozilla Firefox, Google Chrome or Apple Safari)
   2. Type www.gmail.com in the search bar.
      3. Writer your Email account or Phone number then click Next and type your password then click Next to sign in.
   4. Click Compose button, in To text box type (Email Address of our Teacher) in Subject text box type Activity 5 Your Family name.
   5. Click Attach File button, find your activity 5 click Open button then click Send button.
   6. “Message sent” will pop up if successfully sent.

   Teacher’s E-Mail Address: ____________
According to emerald.com electronic spreadsheet is probably the most useful general-purpose software for the microcomputer user. Almost all spreadsheets are now packaged in combination with other applications, such as database system and graphic capabilities. Electronic spreadsheet refers to a collection of text and numbers laid out in a rectangular grid. It is an application program commonly used for budgeting, inventory management, decision making, forecasting and other finance-related tasks.

It replaces the traditional financial modeling tools, the accountant’s columnar pad, pencil and calculator. It a spreadsheet program, data and formulas used to calculate those data are entered into ledge-like forms (Spreadsheets or Worksheets) for analysis, tracking, planning, or “what-if” evaluations of the impact of real or proposed changes on an economic strategy.

A great free alternative spreadsheet program is LibreOffice Calc, and OpenOffice spreadsheet program.

### Arithmetic operations

<table>
<thead>
<tr>
<th>ARITHMETIC OPERATORS /SYMBOLS</th>
<th>OPERATION</th>
<th>EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ (Plus Sign)</td>
<td>Addition</td>
<td>=A1+A2</td>
</tr>
<tr>
<td>- (Minus Sign)</td>
<td>Subtraction</td>
<td>=A1-A2</td>
</tr>
<tr>
<td>* (Asterisk)</td>
<td>Multiplication</td>
<td>=A1*A2</td>
</tr>
<tr>
<td>/ (Forward Slash)</td>
<td>Division</td>
<td>=A1/A2</td>
</tr>
<tr>
<td>^ (Exponentiation)</td>
<td>Raises a no. to a power</td>
<td>=3^2</td>
</tr>
<tr>
<td>- (Negation)</td>
<td>Negative</td>
<td>-11</td>
</tr>
<tr>
<td>% (Percent Sign)</td>
<td>Percentage</td>
<td>=90%</td>
</tr>
</tbody>
</table>

**Formula** – is an equation that performs operation on worksheet data. A formula in Microsoft Excel always begins with an **equal sign** (=).
Common Error Values That You Can Encounter from Faulty Formulas

1. **#DIV/0!** appears when entering a formula that performs explicit division by zero (0), using a reference to a blank cell or to a cell that contains zero as the divisor in a formula or function that performs division or running a macro that uses a function or a formula that returns the #DIV/0! error. The solution is to make sure that the divisor in the function or formula is not zero (0) or blank or change the cell reference in the formula to another cell that does not contain a zero or a blank value.

2. ###### - appears when the column is not wide enough to display the content and/or dates and times are negative numbers. The solution is to increase the column width.

3. **#NAME?** Appears when the formula refers to a range name that doesn't exist in the worksheet. This error value appears when you type the wrong range name or fail to enclose in quotation marks some text used in the formula, causing Excel to think that the text refers to a range name.

4. **#N/A** – appears when

   A) an inappropriate value was given for the lookup_value argument in the HLOOKUP, LOOKUP, MATCH, or VLOOKUP worksheet function,

   B) the VLOOKUP, HLOOKUP, or MATCH worksheet function was used to locate a value in an unsorted table,

   C) an array formula (array formula: A formula that performs multiple calculations on one or more sets of values, and then returns either a single result or multiple results. Array formulas are enclosed between braces { } and are entered by pressing CTRL+SHIFT+ENTER,) is using an argument that is not the same number of rows or columns as the range that contains the array formula,

   D) one or more required arguments were omitted from a built-in or custom worksheet function,

   E) a custom worksheet function that you use is not available and

   F) a macro that you run enters a function that returns #N/A.

Solution is optionally, if error checking is turned on in Excel, click the button that appears next to the cell that displays the error ![error](https://bit.ly/36Gzsdv), click
Show Calculation Steps if it appears, and then click the resolution that is appropriate for your data.

5. #NULL! Appears most often when you insert a space (where you should have used a comma) to separate cell references used as arguments for functions.

6. #NUM! Appears when Excel encounters a problem with a number in the formula, such as the wrong type of argument in an Excel function or a calculation that produces a number too large or too small to be represented in the worksheet.

7. #REF! Appears when Excel encounters an invalid cell reference, such as when you delete a cell referred to in a formula or paste cells over the cells referred to in a formula.

8. #VALUE! Appears when you use the wrong type of argument or operator in a function, or when you call for a mathematical operation that refers to cells that contain text entries. For example, the formula =A1+B1, where A1 contains the string "Hello" and B1 contains the number 3, returns the #VALUE! error.

Order of Operations

<table>
<thead>
<tr>
<th>EXCEL FORMULAS</th>
<th>MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>=A12</td>
<td>Assigns the value in cell A2 to the active cell.</td>
</tr>
<tr>
<td>=10 +3^2</td>
<td>Assigns the sum of 10 + 9 (or 19) to the active cell.</td>
</tr>
<tr>
<td>=3<em>D5 or D5</em>3 or =(3*D5)</td>
<td>Assigns three times the contents of cell D5 to the active cell.</td>
</tr>
<tr>
<td>=50% * 20</td>
<td>Assigns the product of 0.50 times 20 (or 10) to the active cell.</td>
</tr>
<tr>
<td>-(F3 * J25)</td>
<td>Assigns the negative value of the product of the values contained in cells F3 and J25 to the active cell.</td>
</tr>
<tr>
<td>=6 * (G5-P7)</td>
<td>Assigns the product of 6 times the difference between the values contained in cells G5 and P7 to the active cell.</td>
</tr>
<tr>
<td>=B4/D8-E3 * M10 +A3 ^F3</td>
<td>Completes the following operations, from left to right: exponentiation (A3^F3), then division (B4/D8 – E3 * M10) + (A3 ^F3). If cells A3=2, F3=4, E3=6, B4=3, M10=4, and D8=3, then Excel assigns the active cell the value 18; that is, 3/3 – 6 * 4 + 2 ^ 4 = -7</td>
</tr>
</tbody>
</table>
What’s New

Activity 6 – Tax Payers

Getting Started:

1. Opening Microsoft Excel Program. (Click Start button, type Microsoft Excel and press Enter).

2. The Microsoft Excel windows will appear, select Blank Workbook to open new excel document.

3. Renaming and changing color of sheet tab. [right-click on this Sheet1 tab and select Rename in the Popped-up Shortcut Menu. Then type its name, Tax Payers and press Enter. Right-click on Tax Payers tab and point Tab Color in the Popped-up Shortcut Menu then select dark blue color.]

4. Saving worksheet. (Click in the Quick Access Toolbar or Click Office button and click Save).

Note: Save your work from time to time, then click in the Quick Access Toolbar or press Ctrl + S to your keyboard for easy and quick saving.

5. Setting margins. (In the Page Layout ribbon, in Page Setup group, click Margins then click Custom Margins. In the windows/dialog box, click Margin tab and change Top to .5”, Bottom to .5”, Right to .75” and Left to .75”. then click Ok.)

6. Position cell pointer to cell D10 [Select D10 and type TAX PAYERS. Then select this text and have it Boldfaced.]

7. Position cell pointer to cell D10 [Select D10 and type TAX PAYERS. Then, select this text and have it Boldfaced.]

8. Merging range and setting cell style. (Select cells A10 to F10, click Merge & Center and Middle Align button all in the Alignment group of Home
18. In same ribbon in Styles Group, click Cell Styles then find and click Heading 1 style.

9. Entering text. (Starting Cell A14 to C14 type LAST NAME, FIRST NAME and TAX and have it centered.

10. Entering data. (Starting Cell A15 to A24 type 10 Last names of your classmates. In cell B15 to B24 type 10 First names of your classmates. In cell C15 to C24 enter the following numbers respectively (45, 23, 67, 32, 20, 0, 25, 80, 9 and 27.)


12. Applying borders on text. (Select the whole entries in cells A14 through C24, Click arrow down beside Borders button, find and click All Borders found in the Font group of Home ribbon. Do the same in cells E14 to F24.)

13. Using sum formula. (In cell F15 type the formula =SUM(C15:C24) then press enter.)

14. Using maximum formula. (In cell F17 type the formula =MAX(C15:C24) then press enter.)

15. Using average formula. (In cell F18 type the formula =AVERAGE(C15:C24) then press enter.)

16. Using minimum formula. (In cell F20 type the formula =MIN(C15:C24) then press enter.)

17. Using count formula. (In cell F21 type the formula =COUNT(C15:C24) then press enter.)

18. Using countif formula. (In cell F22 type the formula =COUNTIF(C15:C24,">0") then press enter.)

19. Using countif formula. (In cell F23 type the formula =COUNTIF(C15:C24,"=0") then press enter.)

20. Position cell pointer to cell D29 [Select D29 and type MEAN, MIDEAN AND MODE Then, select this text and have it Boldfaced.

18
21. Merging range and setting cell style. (Select cells A29 to F29, click Merge & Center and Middle Align button all in the Alignment group of Home ribbon. In same ribbon in Styles Group, click Cell Styles then find and click Title style.)

22. Entering Text. (In cell A31 to A46 type MONTH, January, February, March, April, May, June, July, August, September, October, November, December, MEAN, MIDEAN and MODE)

23. Entering data. (Starting Cell B31 to C46 type AVERAGE PRECIPITATION, 26, 25, 14, 24, 17, 27, 21, 25, 23, 25, 12 and 16 respectively.)

24. Wrapping Text. (Select cell B31, in the Home ribbon in Cells Group, click Format, select Format Cells, in the format cells window/dialog box, click Alignment Tab and check Wrap text in the Text control selection then click Ok or press Enter in the keyboard.

25. Setting Text Alignment. (select cells A30 and B30, click the text alignment to Center and Middle align. All are in the Alignment Group of Home Ribbon).

26. Applying borders on text. (Select the whole entries in cells A31 through B46, Click arrow down beside Borders button, find and click All Borders found in the Font group of Home ribbon.)

27. Using mean formula. (In cell B44 type the formula =AVERAGE(B32:B43) then press enter.)

28. Using median formula. (In cell B45 type the formula =MEDIAN(B32:B43) then press enter.)

29. Using mode formula. (In cell B46 type the formula =MODE(B32:B43) then press enter.)

30. Creating Pie Chart. (Select cells A32 to B43, In the Insert ribbon in Chart group, click Pie and in the Pie selection, select your desired chart. Select and arrange chart on the right portion of the table.)

31. Saving your workbook in My Documents/Flash Drive with the current name. [click in the Quick Access Toolbar (or click File Button, click save in its full down menu).]

32. Checking the margin of the paper.

33. Submit your work for checking by your teacher.
Activity 7 - Synthesizing your Learning

Answer the following questions based on your learning. Be brief and concise.

1. Based on your reading of the discussion, give at least three (3) types of productivity tools.
   a. ____________________________
   b. ____________________________
   c. ____________________________

2. In the list that you provide in number 1, which productivity tool did you use frequently? Why?
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________
   __________________________________________________________.
What I Know (Post-Test)

I. **Multiple Choice:**
Directions: Read and answer the questions below. Select the letter of the best answer from among the given choices.

1. What button allows you to see the result of your mail merge even before you print or send it out?
   a. Address book  
   b. Preview Results  
   c. Greeting line  
   d. Start Mail Merge

2. The following are formulas that MS-Excel can understand, EXCEPT.
   a. =Sum(a1+a2)  
   b. =average(a1+a2)  
   c. =a1+b2  
   d. =1a+b2

3. Which of the following button do you select if you want to Open a new document?
   a.  
   b.  
   c.  
   d.  

4. This error value refers to a cell that contains 0 value or blanks.
   a. #N/A  
   b. #NULL!  
   c. #VALUE!  
   d. #DIV/0

5. Which of the following arithmetic operators is use for exponentiation?
   a. +  
   b. -  
   c. ^  
   d. *

6. Which of the following software are commonly used for presentation that contains animation?
   a. Microsoft Word  
   b. Microsoft Excel  
   c. LibreOffice Calc  
   d. PowerPoint

7. Which of the following errors will appear if Excel encounters invalid cell reference.
   a. #REF!  
   b. #N/A  
   c. #Value!  
   d. #######

8. Which of the following errors will appear if Excel encounters invalid cell has inappropriate value was given for the lookup value argument.
   a. #REF!  
   b. #N/A  
   c. #Value!  
   d. #######
9. Which of the following set of effects that can be found in PowerPoint apps?
   c. Mailings                   c. Layout group
   d. Custom Animation           d. Hyperlink

10. A function used to count the number of cells that contains something if the criteria are met.
   c. COUNT                    c. COUNTING
   d. COUNTNOW                 d. COUNTIF

II. True or False:
Directions: In your paper, write the word TRUE if the statement is correct, and write FALSE if the statement is wrong.

___________ 1. LibreOffice is a free and open source software.

___________ 2. Main document is a data source that is used to populate information in the letter.

___________ 3. The default orientation of the document is a Landscape.

___________ 4. You can change the color of display text in a hyperlink.

___________ 5. Formula is an equation that performs operation on worksheet data.

___________ 6. The hyperlink can be a website address at the same time display text.

___________ 7. The default number of worksheets in an excel is 3.

___________ 8. Times New Roman is the default font style in Microsoft Office 2016.

___________ 9. The data source in a mail merge is your mailing document.

___________ 10. The mouse pointer becomes different shapes depending on the task you are performing.
1. True
2. False
3. True
4. False
5. True
6. True
7. False
8. False
9. True
10. True
### Key to Answers

<table>
<thead>
<tr>
<th>Activity 1: Mail Merge</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lesson 1</strong></td>
</tr>
</tbody>
</table>

#### Mail Merge Criteria

<table>
<thead>
<tr>
<th>Output</th>
<th>Does Not Meet</th>
<th>Meets Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Business Letter in Word</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Table in Word</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Errors (Spelling, Punct)</strong></td>
<td>Does Not Meet</td>
<td>Meets Criteria</td>
</tr>
</tbody>
</table>

#### Table in Word Criteria

<table>
<thead>
<tr>
<th>Table is formatted correctly, but letter is not. Letter is not. Letter is not integrated with database.</th>
<th>Some Errors</th>
<th>Meets Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does Not Meet</td>
<td>Successful Mail/Data Merge</td>
<td>Table in Word</td>
</tr>
</tbody>
</table>

#### Errors (Spelling, Grammar, Punct) Criteria

<table>
<thead>
<tr>
<th>0-3 Errors</th>
<th>No Errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does Not Meet</td>
<td>Meets Criteria</td>
</tr>
<tr>
<td>4 or more Errors</td>
<td></td>
</tr>
</tbody>
</table>

#### Mail Merge Criteria

<table>
<thead>
<tr>
<th>1-3 Errors</th>
<th>No Errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does Not Meet</td>
<td>Meets Criteria</td>
</tr>
<tr>
<td>Does Not Meet</td>
<td></td>
</tr>
</tbody>
</table>

#### Business Letter in Word Criteria

<table>
<thead>
<tr>
<th>Letter is not properly formatted correctly, but letter is not integrated with database.</th>
<th>Some Errors</th>
<th>Meets Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Successful Mail/Data Merge</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Table in Word Criteria

<table>
<thead>
<tr>
<th>Table is missing rows, columns, or data.</th>
<th>Some Errors</th>
<th>Meets Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does Not Meet</td>
<td>Successful Mail/Data Merge</td>
<td>Table in Word</td>
</tr>
</tbody>
</table>

#### Business Letter in Word Criteria

<table>
<thead>
<tr>
<th>Letter is not. Letter is not integrated with database.</th>
<th>Some Errors</th>
<th>Meets Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Successful Mail/Data Merge</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Output should be based on the rubric:
### Key to Answers

<table>
<thead>
<tr>
<th>Category</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Activity 1:</strong> Mail Merge</td>
<td>25 pts</td>
<td>20 pts</td>
<td>10 pts</td>
<td>Does Not Meet Criteria</td>
</tr>
<tr>
<td><strong>Business Letter in Word</strong></td>
<td>25 pts</td>
<td>20 pts</td>
<td>10 pts</td>
<td>Does Not Meet Criteria</td>
</tr>
<tr>
<td><strong>Table in Word</strong></td>
<td>25 pts</td>
<td>20 pts</td>
<td>10 pts</td>
<td>Does Not Meet Criteria</td>
</tr>
<tr>
<td><strong>Mail/Data Merge</strong></td>
<td>25 pts</td>
<td>20 pts</td>
<td>10 pts</td>
<td>Does Not Meet Criteria</td>
</tr>
<tr>
<td><strong>Errors (Spelling, Grammar, Punct)</strong></td>
<td>25 pts</td>
<td>20 pts</td>
<td>10 pts</td>
<td>Does Not Meet Criteria</td>
</tr>
</tbody>
</table>

### Activity 2: Slide Show Presentation

<table>
<thead>
<tr>
<th>Category</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Presentation</strong></td>
<td>25 pts</td>
<td>20 pts</td>
<td>10 pts</td>
<td>Does Not Meet Criteria</td>
</tr>
<tr>
<td><strong>Use of Custom Animation</strong></td>
<td>25 pts</td>
<td>20 pts</td>
<td>10 pts</td>
<td>Does Not Meet Criteria</td>
</tr>
<tr>
<td><strong>Background</strong></td>
<td>25 pts</td>
<td>20 pts</td>
<td>10 pts</td>
<td>Does Not Meet Criteria</td>
</tr>
<tr>
<td><strong>Text – Font Formatting</strong></td>
<td>25 pts</td>
<td>20 pts</td>
<td>10 pts</td>
<td>Does Not Meet Criteria</td>
</tr>
<tr>
<td><strong>Use of Graphics</strong></td>
<td>25 pts</td>
<td>20 pts</td>
<td>10 pts</td>
<td>Does Not Meet Criteria</td>
</tr>
<tr>
<td><strong>Grammar and Spelling</strong></td>
<td>25 pts</td>
<td>20 pts</td>
<td>10 pts</td>
<td>Does Not Meet Criteria</td>
</tr>
<tr>
<td><strong>Choose a Cool Font (e.g., Garamond, Calibri, Verdana)</strong></td>
<td>25 pts</td>
<td>20 pts</td>
<td>10 pts</td>
<td>Does Not Meet Criteria</td>
</tr>
<tr>
<td><strong>Custom Animation</strong></td>
<td>25 pts</td>
<td>20 pts</td>
<td>10 pts</td>
<td>Does Not Meet Criteria</td>
</tr>
<tr>
<td><strong>Background</strong></td>
<td>25 pts</td>
<td>20 pts</td>
<td>10 pts</td>
<td>Does Not Meet Criteria</td>
</tr>
</tbody>
</table>

**Output should be based on the rubric.**
### Key to Answers

<table>
<thead>
<tr>
<th>Activity: Adding Hyperlink</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output should be based on the rubric.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Use of Hyperlink</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>All slides do not have hyperlink.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Category</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Choice of Background</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Background does not detract from text or other graphics.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Use of Graphics</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>All graphics are attractive (size and colors) and support the theme/content of the presentation.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Spelling and Grammar</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation has no misspellings or grammatical errors.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Text - Font</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Font format is suitable for the chosen topic.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Other Graphics</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Other graphics are compatible with the chosen topic.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Sequence</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Some slides do not have hyperlink.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Presentation Content</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The content is complete and clearly presented.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Other Graphics placed within text</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Other graphics are compatible with the chosen topic.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Readability</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Text is clearly readable.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Presentation Content</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The content is complete and clearly presented.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Other Graphics placed within text</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Other graphics are compatible with the chosen topic.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Readability</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Text is clearly readable.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Presentation Content</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The content is complete and clearly presented.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Other Graphics placed within text</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Other graphics are compatible with the chosen topic.</td>
</tr>
</tbody>
</table>
### Activity 4: Integrating Image

<table>
<thead>
<tr>
<th>Directions</th>
<th>Use of Image</th>
<th>Proofreading</th>
<th>Formatting</th>
<th>Styles and Spacing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Followed. Submitting were completing activity and instructions for.</td>
<td>We were correct, and colors have been.</td>
<td>Correctly used.</td>
<td>Correctly used.</td>
<td>Used.</td>
</tr>
<tr>
<td>Followed. Submitting were completing activity and instructions for.</td>
<td>Some slides have hyperlink but did not apply in proper sequence.</td>
<td>Did not proofread, and errors.</td>
<td>Some elements of formatting used.</td>
<td>Some elements of formatting used.</td>
</tr>
<tr>
<td>Followed. Submitting were completing activity and instructions for.</td>
<td>All slides have hyperlink and connected to other slides in proper sequence.</td>
<td>Document was proofread, and errors were corrected.</td>
<td>All elements of formatting used.</td>
<td>All elements of formatting used.</td>
</tr>
</tbody>
</table>

**Key to Answers**

<table>
<thead>
<tr>
<th>Directions</th>
<th>Use of Image</th>
<th>Proofreading</th>
<th>Formatting</th>
<th>Styles and Spacing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Followed. Submitting were completing activity and instructions for.</td>
<td>We were correct, and colors have been.</td>
<td>Correctly used.</td>
<td>Correctly used.</td>
<td>Used.</td>
</tr>
<tr>
<td>Followed. Submitting were completing activity and instructions for.</td>
<td>Some slides have hyperlink but did not apply in proper sequence.</td>
<td>Did not proofread, and errors.</td>
<td>Some elements of formatting used.</td>
<td>Some elements of formatting used.</td>
</tr>
<tr>
<td>Followed. Submitting were completing activity and instructions for.</td>
<td>All slides have hyperlink and connected to other slides in proper sequence.</td>
<td>Document was proofread, and errors were corrected.</td>
<td>All elements of formatting used.</td>
<td>All elements of formatting used.</td>
</tr>
</tbody>
</table>

**Output should be based on the rubric:**

- **Excellent:** All of the time.
- **Good:** Most of the time.
- **Fair:** Some of the time.
- **Poor:** Rarely or never.

All of the time.

- **Correct:** Elements have been applied.
- **Correct:** Elements have been applied.
- **Correct:** Elements have been applied.
- **Correct:** Elements have been applied.

Some of the time.

- **Correct:** Elements have been applied.
- **Correct:** Elements have been applied.
- **Correct:** Elements have been applied.
- **Correct:** Elements have been applied.

Some of the time.

- **Correct:** Elements have been applied.
- **Correct:** Elements have been applied.
- **Correct:** Elements have been applied.
- **Correct:** Elements have been applied.

Rarely or never.

- **Correct:** Elements have been applied.
- **Correct:** Elements have been applied.
- **Correct:** Elements have been applied.
- **Correct:** Elements have been applied.

Some of the time.

- **Correct:** Elements have been applied.
- **Correct:** Elements have been applied.
- **Correct:** Elements have been applied.
- **Correct:** Elements have been applied.

Rarely or never.

- **Correct:** Elements have been applied.
- **Correct:** Elements have been applied.
- **Correct:** Elements have been applied.
- **Correct:** Elements have been applied.
### Key to Answers

#### Activity 5: Tax Payers

<table>
<thead>
<tr>
<th>Direction Followed</th>
<th>Cell Formulas</th>
<th>Output Based on the Rubric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>Excellent</td>
<td>Output should be based on the rubric.</td>
</tr>
<tr>
<td>Good</td>
<td>Good</td>
<td></td>
</tr>
<tr>
<td>Fair</td>
<td>Fair</td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>Poor</td>
<td></td>
</tr>
</tbody>
</table>

#### Formulas

- **Excellent**: Cell formulas were used wherever appropriate. There were no numbers used wherever possible. **Excellent**
- **Good**: Most of the numbers needed to be calculated were used. Some numbers that needed to be calculated were not used. **Good**
- **Fair**: None of the numbers needed to be calculated were used. **Fair**
- **Poor**: None of the numbers needed to be calculated were used. **Poor**

#### Formatting

- **Excellent**: The worksheet was formatted correctly. All columns and labels are in the correct place. **Excellent**
- **Good**: The worksheet was missing one or two of the following requirements: 
  - All labels are centered and in the correct location.
  - The graph is labeled appropriately and in the correct size. **Good**
- **Fair**: The worksheet was missing 3 or 4 of the formatting requirements. **Fair**
- **Poor**: The worksheet was missing all of the formatting requirements. **Poor**

#### Data Required

- **Excellent**: All printouts for the project were handed in. All information contained in the worksheets is accurate. **Excellent**
- **Good**: Information contained in the worksheets was inaccurate. **Good**
- **Fair**: Information contained in the worksheets was completely inaccurate. **Fair**
- **Poor**: Not all printouts were handed in for the project. **Poor**

#### Graph

- **Excellent**: The graph required for the project is correct. All labels on axes and the key for the graph are labeled appropriately and in the correct place. **Excellent**
- **Good**: The graph required is not the correct size, correct shape, or located in the correct place. **Good**
- **Fair**: There is a graph present but more than one item is incorrect on it. **Fair**
- **Poor**: There is no graph. **Poor**

#### Followed Directions

- **Excellent**: All directions were followed accurately and completely. **Excellent**
- **Good**: Most of the directions were followed accurately. **Good**
- **Fair**: Some of the directions were followed. **Fair**
- **Poor**: None of the directions were followed. **Poor**
Activity 6: Synthesizing Your Learning

1. Any of the following:
   a. Microsoft Office
   b. Microsoft PowerPoint
   c. Microsoft Excel
   d. LibreOffice

2. (Answers may vary)
References


For inquiries or feedback, please write or call:

Department of Education - Bureau of learning Resources
Zone 1, DepEd Building Masterson Avenue, Upper Balulang,
Cagayan de Oro City, 9000
Telefax: (088) 880 7072
E-mail address: region10@deped.gov.ph