**Excel Day 9**

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| --- | --- |
| **Objectives** *Learners will be able to…* | **Materials** |
| ***Computer skill:*** *creating graphs****Literacy skill:*** *fractions and percentages*  | **Make Student Copies*** **Excel Exercise 12: Percentages (Tab 18)**
* **Excel Exercise 13: Chart Wizard (Tab 19)**

**Props, Technology or Other Resources*** Projector
* Computer for every student
* USB Drives
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|  |
| **Lesson Plan** | Vocabulary |
| **Activity 1: Dream Budget- 35 minutes**Description: learners will create new budget as if they had won 10,000 in the lotteryMaterials/Prep: Use the Personal Budget Checklist from Day 7 to ensure learners are accomplishing everything, Teacher should open the **Teacher Budget Example** attached to lesson plan (used for Activity 3)**Activity 2: Fractions and Percent’s -35 minutes**Description: explain how to use proportions to create percentages in order to demonstrate the idea of “parts of a whole”Materials/Prep: copies of **Excel Exercise 12: Percentages** **Activity 3: Create Graphs** Description: teach learners how to turn their budgets into a graph, to visualize the percentages they came up with in Activity 2 Materials/Prep: copies of **Excel Exercise 13: Chart Wizard (step by step instructions),** be sure **Teacher Budget Example** is open | * Percentages
* Rounding
* Chart
* Graph
* Chart Wizard
* Pie
* Line
* Bar
 |

**Teacher Directions: Activity 1: Dream Budget**

Step 1: Open Personal Budget created Day 7

 Have students tell you how to open a previously saved document

 Have learners lead you through how to open a previously saved document

 **Start>My computer> locate drive>locate file>Click Open**

 OR if in Excel already

 **File>Open>same steps from My computer**

Step 2: Copy and Paste Review

**Ask** learners how to copy the first budget that was created: *highlight the budget, click copy/right-click/CTRL C*

 **Ask** learners how to go to a new tab in the **workbook:** *click on the third tab at the bottom*

How to **paste**? Either button on toolbar/right-click/CTRL V

Step 3: Insert Lottery Winnings

 Review how to insert a new source of income

 Remind learners to check their equations after they insert new rows

 **Demonstrate** checking equations to make sure the appropriate cells are selected

Step 4: Update Budget

**Instruct** learners to update their budget to reflect what they would do if they won $10,000 in the lottery

**Remind** them to save as they work through the budget

**Teacher should copy and paste Teacher Practice Budget (attached) into Excel**

Step 5: Save

**Instruct** learners to save their updates

**Teacher Directions: Activity 2: Fractions and Percent’s - Teacher Practice Budget**

**-Excel Exercise 12: Percentages**

Step 1: Context

**Explain** that it is important to not only know the total amount you spent, but also to know what chunk of your income is spent on what

This can be especially eye opening

Step 2: Parts of a whole

 Explain that what we will be looking at is part of a whole

 Ask if anyone has learned this concept before?

 Ask if anyone knows the most common way parts of whole are represented? *Percentages*

What is a percentage? *a number or ratio as a fraction of 100.*

**Example:** On your test, you got 80%. That is 80 out of 100.  **(Write this on the board)**

Ask learners where else they see percentages?

 Percentages are *typically* out of 100, that is what we will be working with

Step 2: Demonstrate

 Write all of the examples on the board in fraction/ratio form

Example: If I spent a total of $100 in July, and $18 of that was spent on clothes, what percent of the total expenses was spent on clothes?

Example: We know we spend X on Rent. That is x out of the total expenses. But how can we see what percentage of total expenses that is?

x/total= ?/100

Equation:

$$\frac{Category Amount}{Total Exp or Income} x \frac{\%}{100}$$

We need to cross multiply, (x times 100)/total

That’s are to do in your head, so we will need a calculator

Step 3: Introduce Computer Calculator

 Show students where to find a calculator on their computer

 **Start menu>All Programs>Accessories>Calculator**

Step 4: Demonstrate using the calculator

**** Use the calculator to complete the multiplication

Step 4: Find percentages of Teacher Example

Go through the **Teacher Budget Example** and find the percentages of each category

 Have students come up to the board and write out the equation

 Instruct students to round to the tens decimal place: ie 10.4

 It will probably be necessary to explain **rounding**

Step 5: Individual Practice

 Hand out **Excel Exercise 12: Percentages**

Learners will pick five categories and fill in the numbers into the equations and then complete the math

**Demonstrate** how to complete an example using the **Teacher Budget Example**

**Teacher Directions: Activity 3: Graphs - Teacher Budget Example**

**-Excel Exercise 13: Chart Wizard**

Step 1: Context

 **Ask** learners if they can think of a way we often see percentages/parts of a whole displayed?

**Explain** that percentages are often displayed using **charts *:*** *A sheet of information in the form of a table, graph, or diagram*

Excel offers a tool to create charts and place them on a spreadsheet

Column

Step 2: Display Charts

 **Explain** that often the words **chart** and **graph** are used interchangeably

 A graph is a type of chart

 **Ask** if anyone knows an example of a graph?

Draw a **Bar graph** and a **Column Graph** the vaguely represents the percentages that were developed in **Teacher Budget Example (examples ->)**

Bar

**Ask** learners which one they think is the column graph- just like columns in a spreadsheet

**Label what the graph types are**

Draw a **Pie Chart**- explain that this is the best way to percent percentages, because

Percentages represent **parts of a whole**

Step 3: Demonstrate Chart Wizard

 Learners should have their **EYES FORWARD AND HANDS OFF OF THEIR COMPUTER**

 **Highlight the budget information**

 **Locate** the **Chart Wizard** button by hovering over the buttons on the toolbar

 Choose a graph type

Label the graph- give it a name, just like you would name a spreadsheet that was being saved- we need to know what we are looking at

Step 4: Demonstrate moving the chart and making it smaller/larger

**Explain** that often Excel places the chart in an inconvenient spot, so it needs to be moved or made smaller

**Point out** the black boxes around the graph

 **Explain** these are used to make graph bigger/smaller

 **Demonstrate** using click and drag to expand, shrink the chart

**** **Point out** what the cursor looks like when size change is possible

 **Point out** what the cursor looks like when you can move the whole chart

Step 5: Controlled Practice

 Work through inserting a Bar Graph with the class

 They should lead you through, but can work on their own computers

Step 6: Individual Practice

 Learners should create a Bar and Pie Chart on their own

 Circulate to assist students

Step 7: Save

 **Instruct** learners to save their workbook

Step 8: Activity, if there is time

As leaners finish inserting their charts, **handout Excel Exercise 13: Chart Wizard**

 **If they do not get to this, write it in the lesson report. It can be used as a warm-up for Day 10**

**Excel Exercise 12: Percentages**

**Directions:** Pick five categories from your Dream Budget and place the value that you budgeted into the empty space in the equation. You should then use the computer calculator to complete the math necessary.

1. Category 1:  **x** ? . ?= %

Total Expenses: 100

1. Category 2:  **x** ? . ?= %

Total Expenses: 100

1. Category 3:  **x** ? . ?= %

Total Expenses: 100

1. Category 4:  **x** ? . ?= %

Total Expenses: 100

1. Category 5:  **x** ? . ?= %

Total Expenses: 100

1. Which percentage is the largest?
2. For the largest percentage, fill in the blank for the sentences below.

I spent % of my expenses on .

1. Did this surprise you?

**Excel Exercise 13: Chart Wizard**

****

**C**

B

**A**

1. Which of the cursor displayed above would allow you to move a chart around?
2. Which of the cursors displayed above would allow you to shrink or expand the size of a chart?
3. What kind of graph is

 displayed to the left?

**Countries by Area**

1. What information is this

 graph displaying?

1. Which country has the

 largest area?



1. What kind of graph is displayed to the right?
2. What information is this graph displaying?

**Teacher Budget Example**

**Copy and Paste into Excel**

**Use for Activity 2 and 3**

|  |
| --- |
| Teacher Budget Practice  |
| **Income**  |   |
| Lottery Winnings  |  $ 10,000.00  |
| Pay Check |  $ 2,115.90  |
| **Total Income** |  $ 12,115.90  |
|   |   |
| **Expenses** |   |
| Rent |  $ 880.00  |
| Gas |  $ 70.00  |
| Groceries |  $ 95.00  |
| Netflix |  $ 15.00  |
| Internet |  $ 30.00  |
| Misc.  |  $ 115.00  |
| Car Repairs |  $ 65.00  |
| **Total Expenses** |  $ 1,270.00  |