

# CfE Third Level Maths & Numeracy

## Project: Budgeting

When considering how to spend my money, I can source, compare and contrast different contracts and services, discuss their advantages and disadvantages, and explain which offer best value to me.

**MTH 3-09a**

I can budget effectively, making use of technology and other methods, to manage money and plan for future expenses.

**MTH 3-09b**

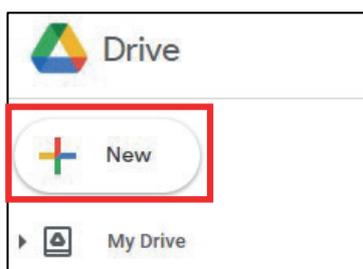
Budgeting is the process of creating a plan to manage your income and expenditure. Income is the money you receive. Expenditure (also known as expenses or spending) is the money you spend.

For this project, you will use a spreadsheet (Google Sheets or Microsoft Excel) to create a monthly budgeting plan. Instructions given below will be based on Google Sheets.

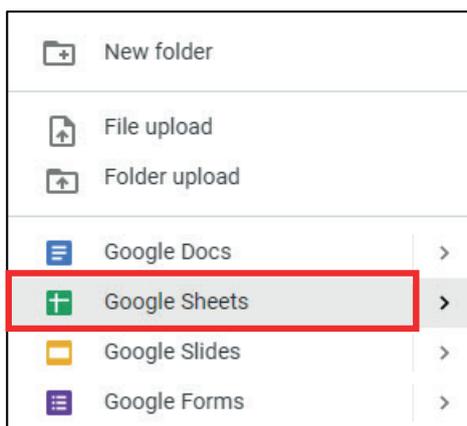
### Task 1: Create a budgeting spreadsheet

Before you begin listing and researching costs, you should create a budgeting spreadsheet.

- Open your Google Drive and click on the '+ New' icon at the left-hand side.



- Scroll down and select 'Google Sheets' to open a new Google Sheets file.

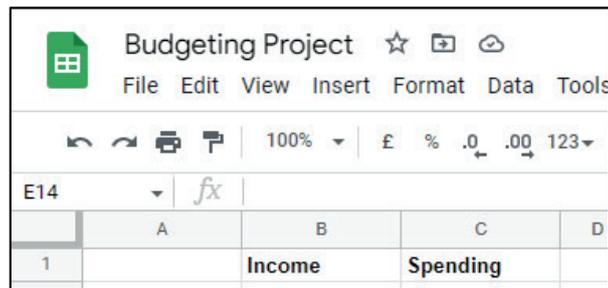


- Click the box that reads 'Untitled spreadsheet', type 'Budgeting Project' and press **ENTER** on your keyboard. This will automatically rename the file in your drive. (Every time you type something into a cell, you should press the **ENTER** key on your keyboard.)



- Click on cell B1 and type in the heading Income.
- Click on cell C1 and type in the heading Spending.
- Highlight cells B1 and C1 and select the 'Bold' icon in the task bar to make the text bold.

It should look like this:



You may choose to format your spreadsheet to suit you – you can change the colour of the cells, the font, etc. Google Sheets will automatically save your changes as you go. If you wish to undo the last change you made, simply press **CTRL-Z** on your keyboard.

In column A, you will list the sources of income and spending. Sources of income may include pocket money (often called an *allowance*), money gifted to you for a birthday or holiday, money earned for carrying out a job, etc. For the purpose of this task, you will begin with a monthly allowance of **£100**.

- Click in cell A2 and enter Allowance.
- Click in cell B2 and enter 100. (Do not include the pound sign – we will come to that later).

## Task 2: Research

Before you consider your current spendings, you must include the following items in your budget:

- A pay-monthly mobile phone contract, including unlimited calls, unlimited text messages and at least 5GB of data.
- At least one online subscription (e.g., Netflix, X-Box Live, Amazon Prime, Spotify, Disney+).

For each of these, use a search engine or a money comparison website to compare contracts and find one that best suits your needs. Make a note of the option you have chosen – the provider, the usage limits, the contract length and the monthly payment. Some providers will give student discount to those in full time education - be sure to check for this.

When you have chosen a phone contract and an online subscription, enter these into your spreadsheet:

- Click in cell A3 and enter Phone Contract.
- Double click on the line between the top of columns A and B. This will adjust the width of column A to fit the entries.
- Click in cell C3 and enter the cost of the contract. Be careful to ensure this cost is entered in column C (Spending) and not column B (Income).
- Click in cell A4 and enter the name of your chosen subscription.
- Click in cell C4 and enter the cost of the subscription.

### Task 3: Complete your budget

You should now add in what you usually spend in a month. Consider items such as clothing, takeaways, snacks, cinema tickets, etc.

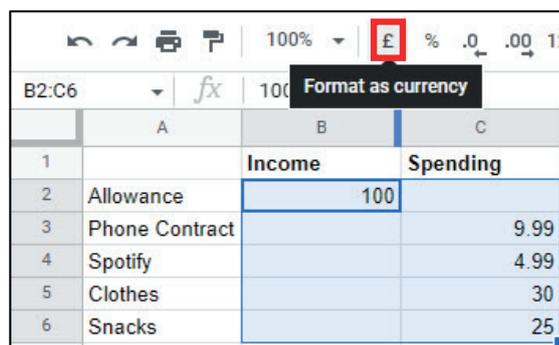
- In cell A5, under your last entry (the subscription), you should now list any such items. In the corresponding cell in column C, enter an estimate of the amount spent on each item.

Your spreadsheet may look something like this. (You should have more entries in column A than shown)

	A	B	C
1		<b>Income</b>	<b>Spending</b>
2	Allowance	100	
3	Phone Contract		9.99
4	Spotify		4.99
5	Clothes		30
6	Snacks		25

When you have entered all your spending, you can now format the cells containing numerical values.

- Click on cell B2. Hold the cursor on B2 and drag the cursor to the final value in column C. When all the cells containing a numerical value are highlighted, select the currency icon in the task bar. This converts the numerical entries into pounds and pence.



### Task 4: Manage your budget

Once you have entered all the relevant spending items, you can begin to manage your budget.

- Click on cell E1 and type Total Income. Press **ENTER**.
- In cell E2, type Total Spending.
- In cell E3, type Remaining Balance.
- Adjust the width of column E to fit these entries.
- In cell F1, type **=SUM(B:B)** and press **ENTER**. This will add up all the numerical entries in column B.
- In cell F2, type **=SUM(C:C)** and press **ENTER**. This will add up all the numerical entries in column C.
- In cell F3, type **=**, click on cell F1, type **-**, click on cell F2 and press **ENTER**. This will subtract the total value of the spendings from the total income.
- Highlight cells F1 to F3 and format them as currency.

Your spreadsheet should now look something like this:

	A	B	C	D	E	F
1		<b>Income</b>	<b>Spending</b>		<b>Total Income</b>	£100.00
2	Allowance	£100.00			<b>Total Spending</b>	£69.98
3	Phone Contract		£9.99		<b>Remaining Balance:</b>	£30.02
4	Spotify		£4.99			
5	Clothes		£30.00			
6	Snacks		£25.00			

The value in cell *F3* is the amount of money remaining after all spending is complete.

If this value is positive, it means you have planned to spend within your means. Consider the following and update your spreadsheet accordingly:

- What would you do with the remaining balance – would you choose to add another item to your spending column, spend more on an item already listed or perhaps carry the month over to the next month?
- Have you allocated an amount to put into savings per month?

If the value in *F3* is negative, this means you have overspent, i.e., you have planned to spend more money than you have. Consider the following and update your spreadsheet accordingly:

- Which of the expenses are essential?
- Are there items on your spending list that you could spend less on?

Since the cells are formatted, if you decide to change any of the spending amounts, you can simply change the value in the appropriate cell and the total values in column *F* will update automatically.

### Task 5: Additional Tasks

**(a)** Format cell *F3* to change colour depending on whether there is an overspend or an underspend, e.g., red for a negative value and green for a positive value

**(b)** Create and manage a budget for a person who:

- Has an annual (yearly) salary of £25,000 after tax and deductions.
- Has a mortgage of £150,000, which costs £800 per month.
- Pays £285 per month on energy bills (gas/electric).
- Pays £180 per month in council tax.

Set up a budgeting spreadsheet and enter all the information given. Then consider and include additional monthly outgoings: food, Wi-Fi, savings, travel, insurance, etc. You may need to use an online search engine to estimate costs for these items.