# STARLIGHT EDUCATION

**Quick Reference Guide**
**EXCEL 2010 - Macros**

## WHAT ARE MACROS?

A macro records your mouse clicks and keystrokes while you work and plays them back later. When you run the macro, it plays those actions back in the exact same order.

## ADD THE DEVELOPER TAB

In order to create macros, the user must first add the Develper tab.

1. Launch Excel 2010 in your favorite manner
2. Select File|Options|Customize Ribbon|Main tabs|activate Developer|OK

The new tab now displays on the tab area.

## CREATE MACROS

1. Build the worksheet in your usuasl manner
2. Click on A1
3. Select Developer tab|Code group|Record Macro
4. Name the macro a logial name but it cannot have spaces in the name
5. Assign a shortcut key
6. If will devault to In the Workbook
7. Provide a short description
8. Click OK
9. Perform your steps and Excel will keep recording all the steps
10. When completed,return to A1
11. Stop the Macro recording by selecting Developer tab|Code group|Stop Recording

## RUN A MACRO

1 Locate the insertion point at A1
2. Select Developer tab|Code group|Macro button
3. Select target macro from offered list
4. Click run

## RELATIVE AND ABSOLUTE REFERENCES

A relative reference in Excel is when the address of a cell is based on the relative position of the cell that contains the data and the cell referred to. By default, a cell reference is relative If you copy a formula. A formula that contains a relative cell reference changes as you copy it from one cell to another. If you want to maintain the original cell reference when you copy it, you make the cell reference absoluteAn absolute cell reference in a formula, is the exact address of a cell, regardless of the position of the cell that contains the formula and is indicated by preceding the columns and row with a dollar sign ($). Then, when you copy the formula it stays exactly the same.

## CHANGING A RELATIVE TO AN ABSOLUTE REFERENCE

1. Select the cell that contains the target formula
2. In the formula barselect the reference to change
3. Depress F4 to switch between the reference types

## REASSIGNING SHORT-CUT KEYS IN MACROS

1. Selecting Developer tab|Code group|Macro button
2. Choose the target macro from the offered list
3. Click on the Options... button
4. Choose a short-cut key to assign to the macro, insert it in the appropriate box and click OK

You will now be able to depress Shift+Ctrl+your selected keystroke to run this macro whenever you have the file open.

## EDITING A MACRO

1. An Excel macro is written in the Visual Basic for Applications (VBA) programming language
2. Clicking on the Edit button in the Macro dialog *box* starts the VBA editor
3. Macro Errors can be modified in this dialog
4. Be very careful and unless you know VBA, re - recording a macro that does not work right is usually the best option
5. Click on the File|Close and Return to Microsoft Excel to return to your spreadsheet

## ADDING A BUTTON

1. Confirm the Developer tab is available and a macro has been completed
2. Select the Ceveloper tab|Controls group|Import
3. Under Form Controls click on the Button form control
4. Draw out the shape of the intended object
5. At the Assign Macros dialog, select the target macro and click OK
6. Click on the button to test it
7. To edit the text on the button, right click the button
8. Click on Edit Text and provide a name for the button

Now every time to click on the button, the macro will run.

## SAVING & USING A MACRO ENABLED WORKBOOK

You will save and open workbooks in a new macro-enabled workbook format (.xlsm) that provides added security. When you create a macro, you must use a macro-enabled format to save your workbook or the macro will not be saved.

1. Click the File tab and then choose Save As
2. Enter a name and select a location for your workbook
3. Click the Save as Type drop-down arrow
4. Select Excel Macro-Enabled Workbook and the extension of `.xlsm` is added to the filename
5. Click Save

## OPENING A MACRO-ENABLED WORKBOOK

1. Open a workbook containing a macro in the same way you open any other workbook
2. A Security Warning message appears below the Ribbon
3. If you know where the macro originated, click the Enable Content button

You are now free to use the macros in that workbook.

# STARLIGHT EDUCATION

**Quick Reference Guide**
**EXCEL 2010 - Advanced Features**

## DATA VALIDATION LIST

1. Open an Excel datasheet
2. Enter headings with data titles of A1 Name, *B1* Course and C1 Grade fields
3. Add five names into A2:A6
4. Select the Name field selector and select Data tab|Data Tools group|Data Validation
5. Click the Allow drop-down button and select List
6. Select source field from where you want to make a list (A2:A6). You can select noncontiguous fields by depressing the Ctrl key
7. Click OK
8. Click the drop down button in the next available Name field and select the name from the offered list

## PROTECTING CELL DATA

1. Launch the target & select the entire data area to be protected
2. Review tab|Changes group|Protect Sheet
3. Select any of the check boxes in Allow All Users … to be functional
4. If desired, provide the Password to Unprotect Sheet text box
5. Click OK & test your protection
6. To unlock cells click Review tab|Changes group|Unprotect Sheet
7. Type the password, if prompted
8. Select the cells you want to allow users to be able to edit
9. Depress Ctrl+1 and click the Protection tab
10. Deactivate the Locked check box
11. Click OK and protect the worksheet again

## GOAL SEEK

1. Reproduce the following (A only):

| | A | B |
|---|---|---|
| 1 | Number | 123 |
| 2 | Multiplied by | |
| 3 | Gives me | |

A

| | A | B |
|---|---|---|
| 1 | Number | 123 |
| 2 | Multiplied by | 52.84553 |
| 3 | Gives me | 6500 |

B

2. Write the Multiplication formula =B1*B2 in the Result cell of B3
3. Select Data tab|Data Tools group|What-if Analysis|Goal Seek
4. In Set cell select the cell which contains the formula (B3)
5. In To value enter the target number (6500)
6. In *By Changing Cell*, select the cell which will be changed (B2)
7. Click *OK* to complete task (B above)

## TABLES

1. Recreate the following:

| | A | B | C | D | E |
|---|---|---|---|---|---|
| 1 | Last | First | Region | Target | |
| 2 | Jones | David | South | 75000 | |
| 3 | Sims | Mike | South | 55000 | |
| 4 | Moore | Terri | West | 100000 | |
| 5 | Adams | Jane | West | 125000 | |
| 6 | | | | | |

2. To modify the spreadsheet into a table, click anywhere inside the table
3. Select Home tab|Styles group|Format as table|Select desired format

| | A | B | C | D |
|---|---|---|---|---|
| 1 | Last | First | Region | Target |
| 2 | Jones | David | South | 75000 |
| 3 | Sims | Mike | South | 55000 |
| 4 | Moore | Terri | West | 100000 |
| 5 | Adams | Jane | West | 125000 |
| 6 | | | | |

4. Click OK

## SCENARIOS

1. Create the following:

| | A | B | C |
|---|---|---|---|
| 1 | Bills | Payables | Receivables |
| 2 | Rent | 600 | |
| 3 | Food | 240 | |
| 4 | Auto | 85 | |
| 5 | Insurance | 32 | |
| 6 | Salary | | 1200 |
| 7 | Total | 957 | 1200 |
| 8 | Expendable | | 243 |
| 9 | | | |

2. Select Data tab|Data Tools group|What if Analysis|Scenario Manager
3. Click the Add button
4. Type Original Budget in the Scenario Name box
5. In the Changing Cells box, enter B3 and click OK
6. We don't want any values to change so just click OK
7. Click the Add button again, type a new Name of Budget Two and click OK
8. Enter the value of 200 in B3, click OK and you have two scenarios
9. With Budget Two selected, click the Show button at the bottom
10. Click the Close button when complete

## COMMENTS

1. Select the cell that you want to add a comment to
2. Select Review tab|Comments group|New Comment (SHIFT+F2)
3. In the body of the comment, type the comment text and Click outside the comment box
4. To edit a comment , select the cell that contains the comment that you want to edit
5. On the Review tab|Comments group|Edit Comment and make the desired edits

## DATA CONSOLIDATION

1. Launch Excel, and create the following:

| Product | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 |
|---|---|---|---|---|
| Mars | 50 | 43 | 66 | 45 |
| Baby Ruth | 74 | 75 | 83 | 45 |
| Skittles | 85 | 86 | 94 | 56 |

2. Go to Sheet1, select the data, copy the data to Sheet2 and Sheet3
3. Select the total data on Sheet1 and, in the Name Box located in the top-left corner of the sheet, enter text1
4. Repeat the above to assign name ranges text2 and text3 to Sheet2 and Sheet3
5. Move to or create a new worksheet, naming it Consolidated, and locate the insertion point where the new data is to display
6. Now navigate to Data tab|DataTools group|Consolidate.
7. From Function options, select SUM
8. From the References text pane, depress F3
9. Select text1 and OK
10. Under Use labels in, enable Top row, and click Add
11. Repeat until all 3 textN entries display in the All References area
12. Click OK to complete the task

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