

Making your own Quiz

The quiz you are to design is for your choice of topic.

It should be do-able by any Year 8 student, and should not be too hard or too easy – it should teach them about your topic.

These instructions are a guide:

First create a new spreadsheet and save it into a sensible place.

All of you should be able up to step 5.

Most of you should be able to get up to step 9.

Step 1: Setting up:

Put a clear and well formatted heading in cell B2 for example “QUIZ about.....”

Put the heading “Questions” in B3

In cell A4, type the words Question 1.

We will put the questions in next.

Plan 4 questions, each with at least three possible answers only one of which is right.

Step 2: Questions

Write four questions into column B

i.e. cells B4, B5, B6, B7 etc

Each question should have 3 possible (multiple choice type) answers – 2 wrong and one right.

Example question for a Geography Quiz:

What is the Highest Waterfall in the world?

Possible answers might be:

Victoria falls (✘), Angel Falls(✓), Virginia falls(✘)

Step 3 – Making the answer options appear like this as a drop down list:

	A	B	C	D
1	Put your Geography Skills to the Test			
2				
3		Instructions: Click and choose your answer from the drop-down lists in the pink boxes, and wait for the verdict! When you have finished, type in your name and collect your results.		
4	Question 1)	Which is the highest waterfall in the world?	Virginia Falls	
5			Victoria Falls	
6			Angel Falls	
			Virginia Falls	

Continued on next page

Step 3: Drop down list

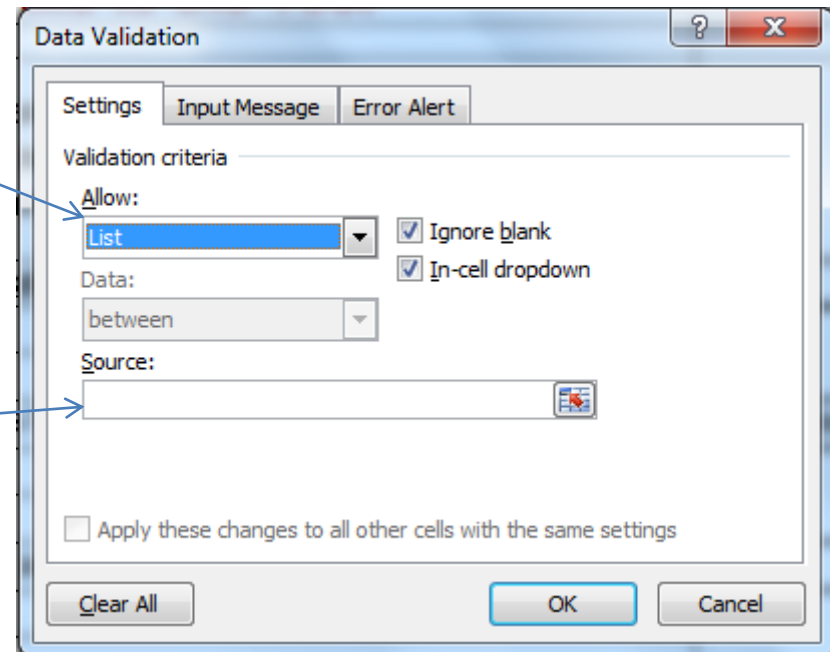
Click in cell C4; then choose **Data, Data Validation, Data Validation,**

Allow a **List**

Then in **Source** type in your possible answers, separating them with a Comma.

OK

Repeat this for your other 3 questions



Step 4 – If formula

(Leave column D empty and narrow.)

We need a formula in cell E4 which says:

*If the answer chosen in cell C4 is equal to the correct answer **then** display “Correct” otherwise display “Bad Luck”.*

The formula for this is (in my quiz)

=IF(C4=“Angel Falls”,“Correct”,“Bad Luck”)

Use a similar formula for each of your other questions – keep the same “correct/bad luck” words you have chosen for each question – do not vary them.

Step 5: Testing

Test your questions in 3 ways:

Check that “Correct” shows for all the correct answers

Check that “Bad Luck” shows for all the wrong answers

Delete your chosen answer in cell C4 – what is displayed in E4? *Check this for the other 3 questions. *
continued

Step 6 – Blanking the comment

*you should find that “Bad Luck” is shown, even if you have typed in no answer – this situation needs addressing.

We want to instruct the spreadsheet that *IF the answer space is “empty” it should leave the result in E4 “empty”*, in other words IF C4 is “empty” then put “empty” in E4. **Otherwise** IF you chose the correct or wrong answers to do as before.

Leave = at the beginning of cell E4’s old formula

Then insert **IF(C4=“”,“”,**

Leave the old formula as it was

But put an extra **)** on the end

The final formula should be:

```
=if(c4=“”,“”,if(c4=“Angel Falls”,“Correct”,“Bad Luck”))
```


Step 7 – To **LEARN** how to get the spread sheet to do the things listed on the previous page, you need **PRACTICE**. Do 2 worksheets....

Preparation: to work out the score and give appropriate comments depending on the score.

Do the worksheets:

IF Practise Exercises

and

Advanced Functions

they are in links at hockerillct.com and in the resources folder called **Extras**.

– practice how to do **nested IFs** and **COUNTIFs** in particular

Step 8 - Scoring

To work out the score, we need to use COUNTIF

This will *COUNTIF* how many times the person got “Correct” in cells E4 to E13 and give them a number score.

In cell B19 type =COUNTIF(E4:E13,"Correct")

Test your spreadsheet by getting 0, then 1, then 2 etc questions correct – does the score work?

You could also do the scoring with a points column. You can use an if formula to award a point if the answer is right.

Step 9 – Name [OPTIONAL]

You might want the student to type in their name to show that they have completed the quiz – this will ask the spreadsheet to display the score.

Type the words in black in the cells as shown below.

Notice the things typed in red but do not type them – we will ask the computer to put these in using formulae.

	A	B	C	D	
13	Question 4)	What are our earliest records of Vesuvius errupting?	79 AD		
14					
15		Thankyou for completing this quiz!			
16		Now, type your name in here for the results:			
17					
18		The person's name will be copied in here	You have scored		
19		The person's score will go here	Out of 4		
20					
21		An appropriate Comment for this score will go here			
22					
23					

Step 10 – Using the name

To copy the person's name (from cell C16 to B18) put this formula into cell B18=**C16**

Type *Fred* into cell C16 as the person's name – what happens? You should see it appear in cell B18 too.

Delete the person's name from cell C16 – what happens now in cell B18 – the name should turn to 0 – this is poor presentation – we need B18 to stay empty if there is no name in C16 – so we will do the same thing as we did in step 6.

Our current formula in B18 says **=C16**

Change it to say **=IF(C16="", "", C16)**

Step 11: To put in an appropriate comment, we could use a VLOOKUP or use a Nested IF statement which is explained after.

VLOOKUP

Frist make a table with the comments for each score.

0	Very poor
1	Weak
2	Improving
3	Not bad
4	Well Done

Make your comments more encouraging than mine?

Ask you teacher for a demonstration of how to use vlookup?

File Home Insert Page Layout Formulas Data Review View Acc

Paste

Clipboard Font Alignment Number

D11

	A	B	C	D	E	F
1						
2		Question	Answer	Message	Score	
3		Capital of Thailand?	bangkok	Well done	1	
4		4+4?	8	Well done	1	
5		Date of london Olympics?	2012	Well done	1	
6		Where is the mona lisa	versailles	Try again	0	
7						
8						
9			Total	3	3	
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						

The vlookup will go in the yellow box
The messages are already typed
into the messages sheet.

messages questions

Step 12

The nested IF statement I will put in cell B21 will be:

```
=IF(B19=0,"Poor",IF(B19=1,"Weak",IF(B19=2,"Improving", IF(B19=3,"Not Bad","Well Done"))))
```

You do not need to ask if the final result is 4, as if it is not 0, 1, 2 or 3, then it must be 4

Test your spreadsheet to see if it works. Try to find limitations in what we have done in these basic instructions.

These are possible evaluation criteria for your quiz:

1. Is it clear what to do?
2. Does it tell you whether each question is right or wrong?
3. Does it look like a fun quiz (or does it just look like a spreadsheet)?
4. Can the user only change/ type in the cells they are supposed to?
5. Is easy to get the right answer even if you cannot spell it?
6. Does it tell you your total?
7. Does it give an appropriate comment to the user?

Step 13

You need to make sure that all the criteria above are fulfilled. You can move things around without having to start again or re-do formulae.

Your Quiz should be lovely and big, its font should be clear and the quiz should fill the screen

You need to make sure that every part of the quiz is user-friendly, that no 0s or wrongs appear which shouldn't. This is **your** job. You can move things around without having to start again.

Step 14:

This is how to protect your sheet so that the **user can only type in the cells you wish them to**.

Hold down the CTRL key and click the left hand mouse button on each one to select all the cells which you wish the user to type in (answers choices and name) – keep them selected and:

Choose the Home Tab

Font

Protection

Take the off Locked to unlock these cells, OK (Do not put in any passwords please)

Then choose the Review Tab

Protect sheet

Allow the user to select unlocked cells

Now the user should only be able to click where you want him to

If you want to change anything, you will have to unprotect your sheet again (and then protect it again).

You might want to stop your quiz looking like a spreadsheet – use the View tab, and the Show option to decide what you want to have on show on your screen.

Extension ideas:

Keep this basic layout but improve the quiz in a way of your own that seems appropriate to you.

Change the “correct/bad luck” options for each question and adapt your COUNTIF statement to your varied comments.

Start a new quiz of your own layout and design, use some of the ideas from this worksheet if you wish. The quiz must be very user-friendly, and should meet the peer evaluation requirements. Possibly include VLOOKUP.

Finally the assessment

The assessment for this project is a design assessment.

This will allow us to see if you have understood the functions enough to design a quizzes choosing the best options for layout and functions