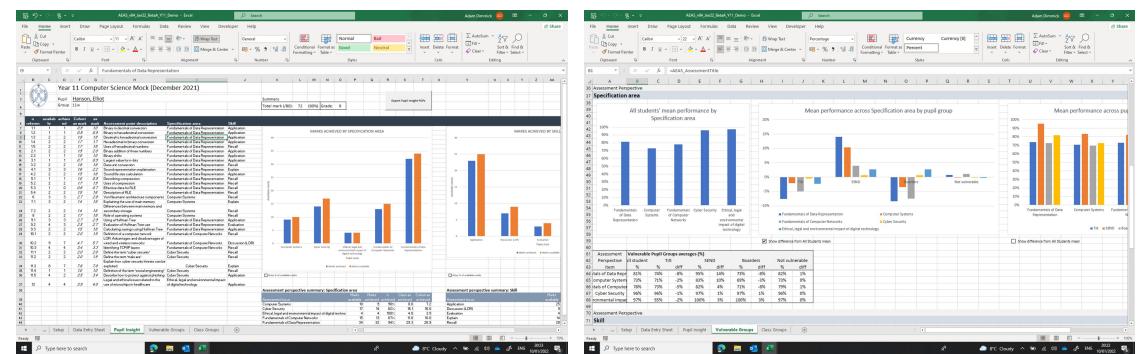


# Getting started with AEAS

January 2022  
Update B



# Welcome!

Congratulations on choosing the Automated Exam Analysis Spreadsheet (AEAS) for all your assessment analysis and insight needs! With a little care and regular maintenance your AEAS will provide you with invaluable insight to improve student learning outcomes for many years to come!

This guide provides step-by-step instructions for setting up and using each element of the AEAS. If you have never used the AEAS before you should work through this guide in the order provided, otherwise you can use the links on the Contents page to jump to the relevant section of this guide.

If you need any further help using the AEAS, please contact [Adam](#).

# Contents

1. [Obtaining the latest version of the AEAS](#)
2. [Setting up the AEAS for a new assessment](#)
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  - [Importing data from a Microsoft Form](#)
4. [Generating the Pupil Insight Sheet](#)
5. [Exporting Pupil Insight Sheet PDFs](#)
6. [Generating cohort insight sheets](#)
7. [Using the Vulnerable Groups and Class Groups insight sheets](#)

# Obtaining the latest version of the AEAS

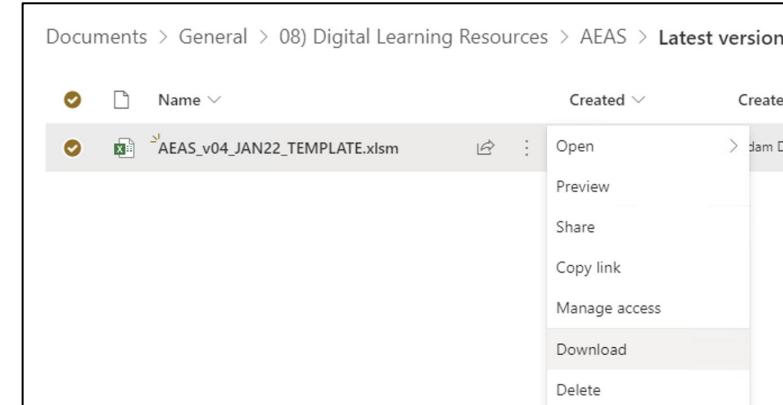
Due to its use of advanced functionality, the AEAS can only be used inside the Excel desktop application (Windows or Mac), not the online web-based version of Excel.

You can download the latest version of the AEAS from the Staff SharePoint, under [General > 08\) Digital Learning Resources > AEAS > Latest Version](#).

Click on the three vertical dots beside the name of the document and select "Download" to download the AEAS template to your computer.

You can now copy/move the spreadsheet to a shared departmental folder if you wish.

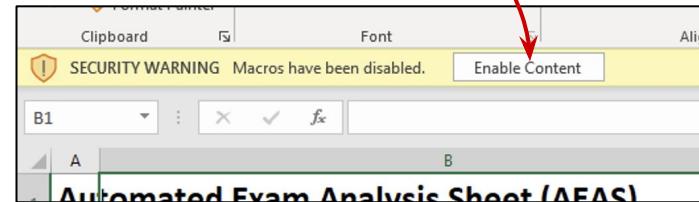
Double-click on the downloaded file to open the AEAS.



# 1. Setting up the AEAS

# Setting up the AEAS for a new assessment

When you open the AEAS you will be warned that "macros have been disabled". Please click the **Enable Content** in the yellow bar at the top of the spreadsheet to enable the AEAS' functionality.



The screenshot shows the 'Home' tab of the AEAS spreadsheet. On the right side, there is a 'Get started!' box with four steps:

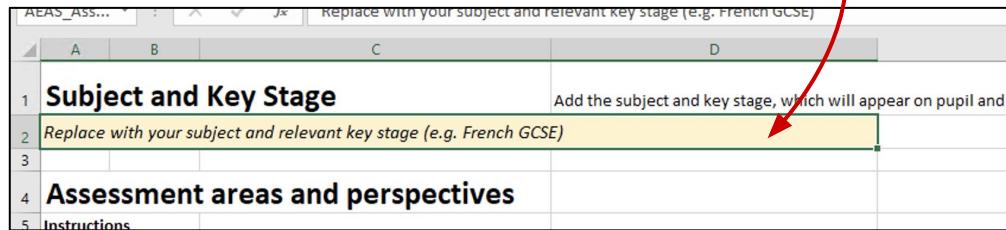
- Step 1: Add assessment and question details (highlighted with a red arrow)
- Step 2: Generate Data Entry Sheet
- Step 3: Generate Pupil Insight Sheet
- Step 4: Generate Cohort Insight sheets

The main body of the sheet contains sections for 'Instructions', 'Setting up the AEAS', 'Data entry', 'Analysing student performance via the Pupil Insight sheet', and 'January 2022 Beta A'.

Having done this, you should now be at the **Home** tab which contains some overview instructions for using the sheet and a number of buttons on the right-hand side. Click the button labelled **Step 1: Add assessment and question details**.

# Setting up the AEAS for a new assessment

On the **Setup** page you can enter a description of your assessment (e.g. Year 11 Computer Science Mock December 2021) into the yellow box at the top.



The screenshot shows a Microsoft Excel-like spreadsheet titled "AEAS\_ASS...". The first row has columns A, B, C, and D. Row 1 contains the header "Subject and Key Stage" and a note "Add the subject and key stage, which will appear on pupil and report cards". Row 2 contains the placeholder text "Replace with your subject and relevant key stage (e.g. French GCSE)". Row 3 is empty. Row 4 contains the header "Assessment areas and perspectives". Row 5 contains the header "Instructions". A red arrow points from the text above the screenshot to the yellow-highlighted cell in row 2, column C.

	A	B	C	D
1	Subject and Key Stage	Add the subject and key stage, which will appear on pupil and report cards		
2	Replace with your subject and relevant key stage (e.g. French GCSE)			
3				
4	Assessment areas and perspectives			
5	Instructions			

You are now ready to add details of the assessment points (mostly commonly questions)...

# Adding assessment point (question) details

In the **Assessment areas and perspectives** you need to enter a reference for each assessment point into the **Ref** column (column A); this is most commonly the question number or question part, e.g. 1(a)(i).

You must also add the maximum marks available for this question/assessment point into the **Max mark** column (column B).

Now you can add a brief description of the assessment point/question that will help remind students what, exactly, Q1, part (a) (i) was all about.

You can add as many assessment points as you require - just keep adding the details into new, consecutive rows.

Ref	Max mark	Assessment point description (a reminder for students)	Assessment p Enter descrip
1	2	Q about ants	Perspective 1
2	3	Q about bees	Perspective 1
3	1	Q about caterpillars	Perspective 1
4	1	Q about dogs	Perspective 1
5	1	Q about elephants	Perspective 1
6	1	Q about foxes	Perspective 1
7	1	Q about giraffes	Perspective 1
8	1	Q about hippos	Perspective 1
9	1	Q about iguanas	Perspective 1
10	1	Q about lemurs	Perspective 1

# Assessment perspectives

Assessment perspectives provide you with means to "cut" the data so that it can be analysed. Essentially, an assessment perspective is a bit like a "tag" that you can use to categorise each assessment point/question.

You can define up to two assessment perspectives for your assignment. The first will most likely be based upon specification content where each item for this perspective is a topic or unit of study.

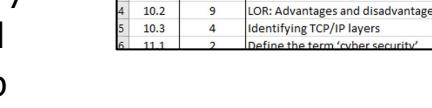
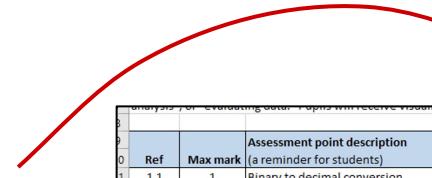
The second assessment perspective might be based upon subject-specific skills such as reading/writing in MFL or analysis/evaluation/recall/interpretation in a humanities subject. The use of the second assessment perspective is optional - if you do not wish to use it then simply don't put anything in this column. The AEAS will know to ignore it in this case.

# Setting up assessment perspectives

Once your assessment point references, max marks and descriptions are in place you can add descriptions for each assessment perspective in the light-blue boxes beneath the **Assessment Perspective 1** and **Assessment Perspective 2** column headings.

You should then enter the assessment perspective categories/labels for each assessment point in the **Assessment Perspective 1** and **Assessment Perspective 2** columns (columns D and E).

Ensure that each assessment perspective category label is written the same way each time it is used so that the AEAS can currently identify and group together assessment points based on each label.



Ref	Max mark	Assessment point description (a reminder for students)	Assessment perspective	
			1	2
1.1	1	Binary to decimal conversion	Fundamentals of Data Representation	Application
1.2	1	Binary to hexadecimal conversion	Fundamentals of Data Representation	Application
1.3	2	Decimal to hexadecimal conversion	Fundamentals of Data Representation	Application
1.4	2	Hexadecimal to binary conversion	Fundamentals of Data Representation	Application
1.5	2	Uses of hexadecimal numbers	Fundamentals of Data Representation	Recall
2.1	2	Binary addition of three numbers	Fundamentals of Data Representation	Application
2.2	1	Binary shifts	Fundamentals of Data Representation	Application
3.1	1	Largest value for n-bits	Fundamentals of Data Representation	Application
3.2	2	Data unit conversion	Fundamentals of Data Representation	Recall
4.1	3	Sound representation explanation	Fundamentals of Data Representation	Explain
4.2	2	Sound file size calculation	Fundamentals of Data Representation	Application
5.1	1	Describing compression	Fundamentals of Data Representation	Recall
5.2	2	Uses of compression	Fundamentals of Data Representation	Recall
5.3	1	Effective data for RLE	Fundamentals of Data Representation	Recall
5.4	2	Description of RLE	Fundamentals of Data Representation	Recall
6	3	Von Neumann architecture components	Computer Systems	Recall
7.1	3	Explaining the use of main memory	Computer Systems	Explain
7.2	2	Differences between main memory and second	Computer Systems	Recall
8	2	Role of operating systems	Computer Systems	Recall
9.1	3	Using a Huffman Tree	Fundamentals of Data Representation	Application
9.2	4	Evaluation of Huffman Tree use	Fundamentals of Data Representation	Evaluation
9.3	2	Calculating savings using Huffman Tree	Fundamentals of Data Representation	Application
10.1	2	Definition of a computer network	Fundamentals of Computer Networks	Recall
10.2	9	LOR: Advantages and disadvantages of wired	Fundamentals of Computer Networks	Discussion (LOR)
10.3	4	Identifying TCP/IP layers	Fundamentals of Computer Networks	Recall
11.1	2	Define the term 'cyber security'	Cyber Security	Recall

# Setting grade boundaries and conditional formatting

Grade boundaries																																			
<b>Instructions</b>																																			
of or t one	Add the % and mark boundary for each grade/level below, starting with the lowest (0%) and building up towards the highest grade. These grade boundaries will be applied to all assessment data provided allowing you to clearly see performance in each assessment perspective across multiple assessments.																																		
I)	<table border="1"><thead><tr><th>%</th><th>Grade / Level</th></tr></thead><tbody><tr><td>0%</td><td>U</td></tr><tr><td>11%</td><td>1</td></tr><tr><td>22%</td><td>2</td></tr><tr><td>33%</td><td>3</td></tr><tr><td>45%</td><td>4</td></tr><tr><td>54%</td><td>5</td></tr><tr><td>63%</td><td>6</td></tr><tr><td>71%</td><td>7</td></tr><tr><td>78%</td><td>8</td></tr><tr><td>86%</td><td>9</td></tr></tbody></table> <p>Conditional formatting thresholds Specify what % of available marks should trigger each colour band in the pupil insight sheet.</p> <table border="1"><thead><tr><th>&gt;= %</th><th>colour</th></tr></thead><tbody><tr><td>85%</td><td>Dark Green</td></tr><tr><td>70%</td><td>Light Green</td></tr><tr><td>50%</td><td>Yellow</td></tr><tr><td>35%</td><td>Orange</td></tr><tr><td>0%</td><td>Red</td></tr></tbody></table>	%	Grade / Level	0%	U	11%	1	22%	2	33%	3	45%	4	54%	5	63%	6	71%	7	78%	8	86%	9	>= %	colour	85%	Dark Green	70%	Light Green	50%	Yellow	35%	Orange	0%	Red
%	Grade / Level																																		
0%	U																																		
11%	1																																		
22%	2																																		
33%	3																																		
45%	4																																		
54%	5																																		
63%	6																																		
71%	7																																		
78%	8																																		
86%	9																																		
>= %	colour																																		
85%	Dark Green																																		
70%	Light Green																																		
50%	Yellow																																		
35%	Orange																																		
0%	Red																																		

The final elements of the assessment to set up are the grade boundaries and colour coding thresholds that you wish to use in your Pupil Insight Sheets.

You can enter up to 27 grade boundary levels, using any Grade/Level codes you wish (1-9, A\*-U, Pass/Merit/Distinction or anything else). In the % column you need to enter the minimum percentage required to achieve that grade boundary.

To alter the colour coded thresholds for the various shades of green, amber and red, you can set the lower-bound in the >=% column.

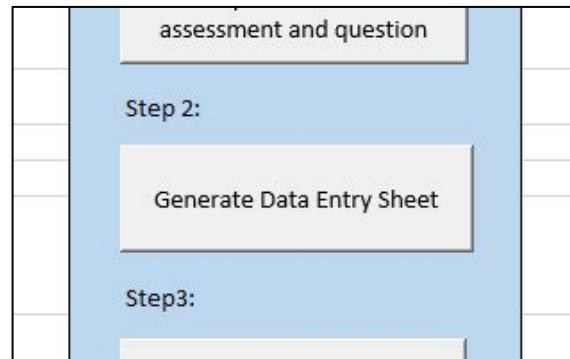
2. Enter student response data

# Generating the Data Entry Sheet

Return the **Home** tab and click on the button labelled **Step 2: Generate Data Entry Sheet**.

A new tab called **Data Entry Sheet** will be created with columns for your students' names (column A), class/teaching groups (column B), vulnerability (pupil) groups (column C) and a column to record the marks that they achieved for each assessment point (column D onwards).

You can copy-and-paste students' names and class groups from existing marksheets if you have them.



A5	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
1																
2																
3																
4	Student Name	Class group	Pupil groups	1 2	2 3	3 1	4 1	5 1	6 1	7 1	8 1	9 1	10 1	Total 13	%	Grade
5														0	0%	U
6														0	0%	U
7														0	0%	U
8														0	0%	U
9														0	0%	U
10														0	0%	U
11														0	0%	U
12														0	0%	U
13														0	0%	U
14														0	0%	U
15														0	0%	U
16														0	0%	U
17														0	0%	U
18														0	0%	U
19														0	0%	U

# Entering vulnerability group data

The **pupil groups** column is used to identify students as SEND, Tilt or Boarders (or any combination of these).

To specify that a student belongs to any of these groups, simply enter **K** (for SEND), **T** (for Tilt) or **B** (for Boarder) into the Pupil groups column for that student.

More than one letter can be entered if a student belongs to more than one group, for example "K,B" if they belong to both SEND and Boarder groups.

This information can be found in your class registers in Bromcom if you are unsure.

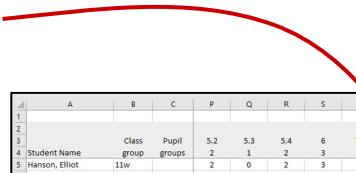
	A	B	C	D	E
				Assessment Point R	
	Class group	Pupil groups		1.1	1.2
4	Student Name			1	1
5	Lacey, Melvin	11A		1	1
6	Lowery, Amaan	11A	T	1	1
7	Mckenna, Kaiser	11A		1	1
8	Gibson, Ralphy	11A		1	1
9	Armitage, Jensen	11A		1	1
10	Nava, Cody	11A		1	1
11	Turnbull, Zayne	11A	B	1	1
12	Parkes, Patryk	11A		1	1
13	Taylor, Aqeel	11A	B	1	1
14	Olson, Leon	11A		1	1
15	Bravo, Bo	11A		1	1
16	Parkinson, Dennis	11A		1	1
17	House, Antonio	11A	S	1	1
18	Schwartz, Reginald	11A		1	1
19	Ward, Arley	11A	T	1	1
20	Guzman, Saxon	11A		1	1
21	Hopkins, Dave	11A		1	1
22	Burn, Keeley	11A		1	0
23	Walters, Lincoln	11B		1	1
24	Shannon, Ayomide	11B		1	1
25	Rooney, Reis	11B		1	1
26	Moran, Raees	11B		1	1
27	Houston, Omar	11B		1	1
28	Rush, Franco	11B		1	1

# Entering student response data

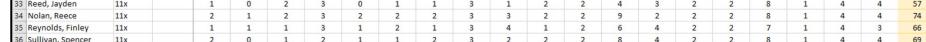
The final step in setting up the AEAS is to enter the marks awarded for each student for each assessment point.

This data can be copy-and-pasted from a departmental / personal marksheet or manually entered. You can also ask students to provide this information themselves via a Microsoft Form, which can then be copy-and-pasted into the Data Entry Sheet, [following instructions provided here](#).

Once all of your data has been entered you are ready to begin your analysis!



A	B	C	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	
1																							
2																							
3																							
4	Student Name	Class	Pupil group	5.2	5.3	5.4	6	7.1	7.2	8	9.1	9.2	9.3	10.1	10.2	10.3	11.1	11.2	11.3	11.4	11.5	12	
5	Hanson, Elliot	11w	T	2	0	2	3	2	2	2	3	3	2	2	7	4	2	2	7	1	2	4	
6	West, Peter	11w	T	2	1	2	3	3	2	2	3	3	2	2	8	4	2	2	8	1	2	4	
7	Harper, Leo	11w	T	2	1	2	3	2	2	2	3	3	2	2	6	3	2	2	8	1	3	4	
8	Humphries, Morgan	11w	T	2	0	0	3	2	1		3	3	1	2	7	3	2	2	8	1	4	4	
9	Gibson, Tom	11w	T	2	1	2	3	2	2		3	1	1	2	5	3	2	2	8	1	2	4	
10	Daniels, Archie	11w	T	2	1	2	3	2	2		3	1	1	2	5	3	2	2	8	1	3	4	
11	Wilkins, Reece	11w	B	2	1	2	3	2	1	2	3	2	2	2	4	2	2	8	1	4	4	69	
12	West, Benjamin	11w	B	1	0	0	2	1	2	2	3	3	2	2	5	0	0	2	1	8	1	4	4
13	Woodward, Jake	11w	B	2	1	2	3	2	1	2	3	3	2	1	7	4	2	2	8	1	4	4	
14	Abbott, Harrison	11w	T	2	1	1	2	1	1	0	3	4	1	2	7	4	2	2	8	1	4	4	
15	Cross, Dominic	11w	T	2	1	2	3	3	2	2	3	2	2	2	7	4	2	2	7	1	4	4	
16	Mason, Mason	11w	T	2	0	2	3	3	2	2	3	3	2	2	6	4	2	2	8	1	3	4	
17	O'Sullivan, Sebastian	11w	S	2	2	2	3	2	1	2	3	2	2	4	2	5	4	2	2	8	1	4	4
18	Lees, Leon	11w	T	2	0	0	3	3	2	2	3	3	2	2	5	4	2	2	8	1	3	4	
19	Reed, Evan	11w	T	2	1	2	3	3	1	2	3	3	2	2	8	4	2	2	8	1	4	4	
20	Burton, Adam	11w	T	1	0	0	3	0	1	0	3	2	2	2	3	3	2	2	8	1	2	4	
21	Reid, Thomas	11w	T	2	1	2	3	1	2	2	2	3	2	2	3	4	2	2	8	1	4	4	
22	Lloyd, Joseph	11w	T	2	1	2	3	0	2	2	3	2	2	2	7	3	2	2	6	1	4	4	
23	Byrne, Jay	11x	T	1	0	2	3	0	1	1	3	2	2	2	2	3	2	2	8	1	4	4	
24	McGinlay, Declan	11x	T	1	1	2	3	1	0	2	3	3	2	2	4	2	2	7	1	4	4	60	
25	Moore, Ellis	11x	T	1	0	2	3	2	1	1	3	1	2	2	3	2	3	2	8	1	2	60	
26	Bevan, Ryan	11x	T	1	0	0	3	2	2	2	0	2	0	2	4	2	2	7	1	4	4	55	
27	Elliott, William	11x	T	2	0	2	3	0	2	2	3	2	1	2	3	3	2	2	8	1	4	4	
28	Baxter, Jamie	11x	T	2	0	2	3	1	1	0	3	4	1	2	3	4	2	2	7	1	4	4	
29	Freeman, Bailey	11x	T	2	1	1	2	1	2	2	0	2	2	2	3	3	2	2	8	1	2	4	
30	Dunnin, Ellis	11x	S	2	1	2	3	0	2	2	3	4	1	2	5	3	1	2	8	1	4	4	
31	Dunstan, Alan	11x	T	2	1	1	3	1	2	2	3	3	2	2	7	4	2	2	8	1	4	4	
32	Davidson, Adam	11x	T	2	1	2	3	2	1	2	3	3	2	2	7	4	2	2	8	1	4	4	
33	Reed, Jayden	11x	T	1	0	2	3	0	1	1	3	1	2	2	4	3	2	2	8	1	4	4	
34	Nolan, Reece	11x	T	2	1	2	3	2	2	2	3	3	2	2	9	2	2	8	1	4	4	74	
35	Reynolds, Finley	11x	T	1	1	1	3	1	2	1	3	4	1	2	6	4	2	2	7	1	4	3	
36	Sullivan, Spencer	11x	T	2	0	1	2	1	1	2	3	2	2	2	8	4	2	2	8	1	4	4	



# Importing data from a Microsoft Form

To save you the effort of going through each question paper and entering the mark for each question (or part within a question) for each student, you can have your students provide this information using a Microsoft Form.

[Click here to open this template](#), which you can then modify and share with your students.

Ensure that you have the correct Class Group options at the start of the form so that this data can be copied into the Data Entry Sheet along with the students' marks.

You will need to add a question to the form for each assessment point/question part within the assessment. Make sure it is clear what question part the mark being entered relates to!

Once all of your students have completed the form you can go to the form's responses and select the option to download the responses as an Excel document. From this you can simply copy-and-paste the data for all students and assessment points into the DES. If the students' names do not match those from Bromcom, you can simply overwrite them with the names from the Form (you will need to re-add your vulnerable group data if you do this, however)!

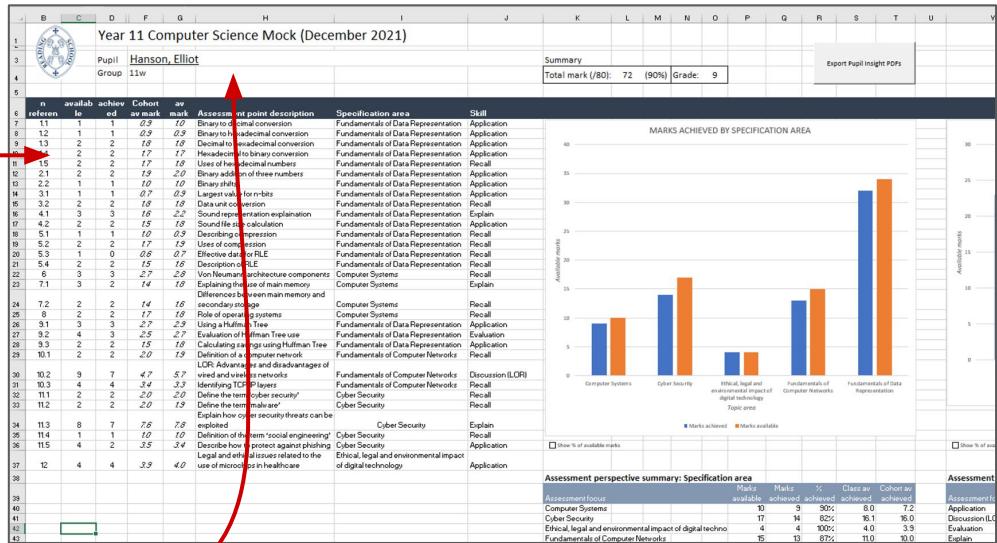
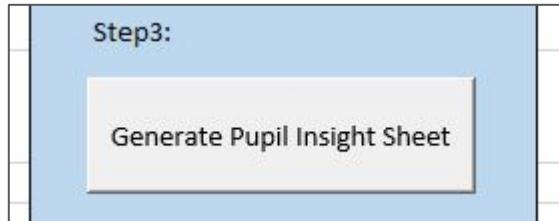
### 3. Individual student insights

# Generating Pupil Insight Sheets

With the Data Entry Sheet completed, you can return to the **Home** tab and click on the button labelled **Step 3: Generate Pupil Insight Sheet**.

After a few moments of black-magic wizardry, the **Pupil Insight Sheet** tab will appear where you will see details of the selected student's mark for each assessment point along with charts showing their performance across each assessment point on the right of the page (you may have to scroll to see these.)

You can use the drop-down containing the selected student's name at the top of the sheet to change the student whose details are being shown.



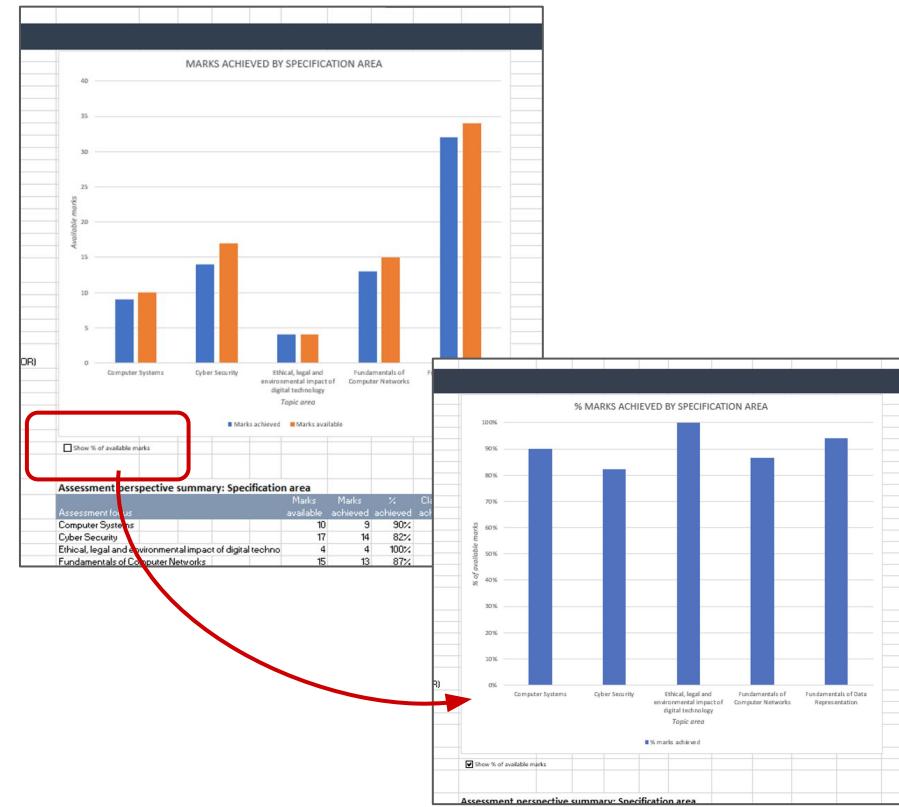
# Tweaking the Pupil Insight Sheet layout

Depending upon the amount of detail provided in your Setup sheet, your Pupil Insight Sheet might be a little crowded.

If this is the case then you can adjust its layout just as you would any other Excel document, including changing the width of columns and the size and alignment of text.

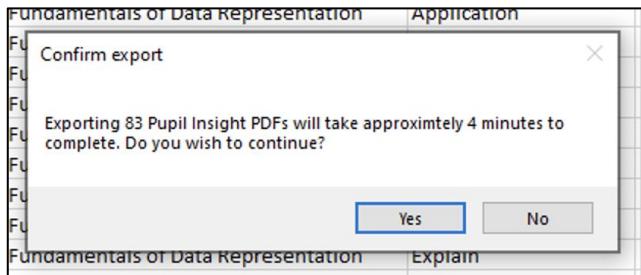
The charts on the right can be resized and recoloured to your desire, but the tables beneath them must not be removed or the charts will lose their data.

The tick-boxes beneath each chart allow you to toggle between seeing marks achieved against marks available for each assessment perspective category or, if preferred, the % of potential marks achieved for that category.

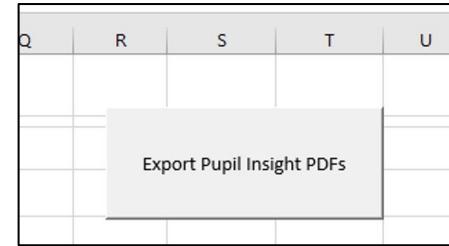


# Exporting Pupil Insight Sheet PDFs

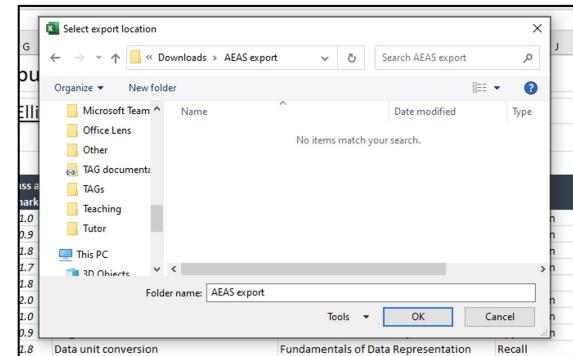
When you are happy with the layout of your Pupil Insight Sheets you can export individual PDFs for each student in the cohort by clicking the **Export Pupil Insight PDFs** button to the top-right of the sheet.



After confirming that you wish to proceed, you will be asked to select a folder where the PDFs should be stored. Each will be named by the class group and student name, along with a timestamp of when the PDF was generated.



Upon doing this you will be given an estimate of how long it will take to produce your set of PDFs before being asked to confirm that with to continue.



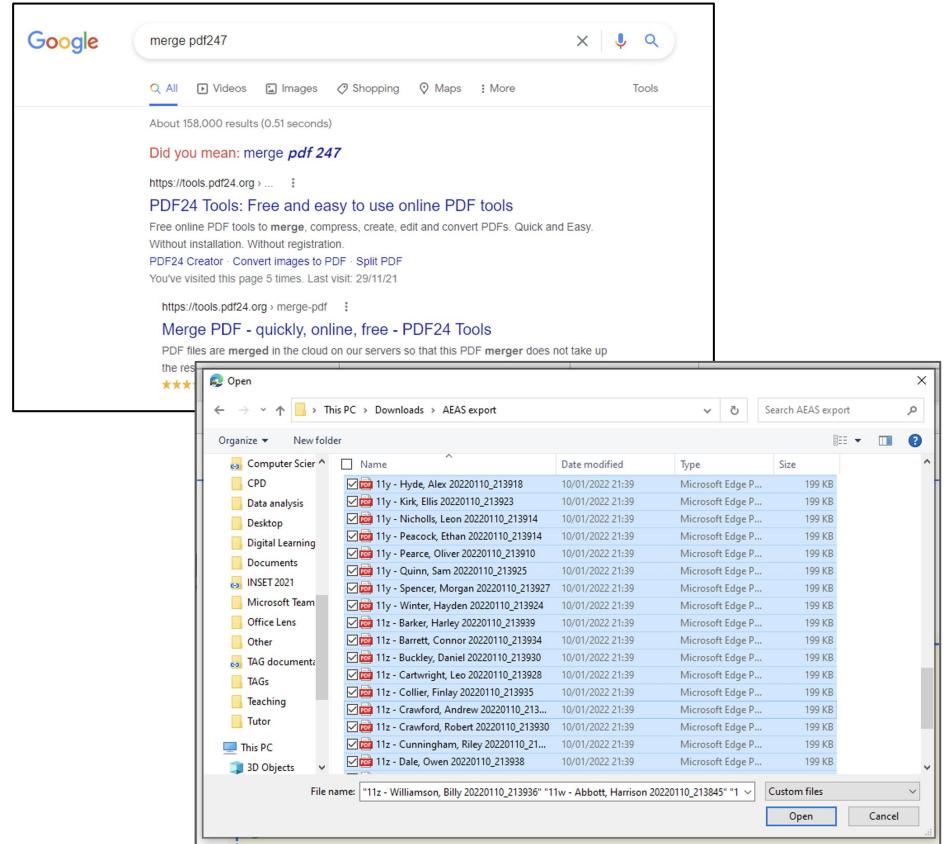
# Combining PDFs into a single file for printing

Unless you wish to distribute each PDF individually to students via email, you will probably want to print them to hand out in lessons. To do this, you will need to combine all exported PDFs into a single document to print.

Open a web browser and search for "merge pdf24". Go to the Merge PDF page at the excellent (and free) PDF24 Tools site.

Click on the **Choose files** button and navigate to the folder where you exported your PDFs. Select all of the files in the folder by clicking on the first, holding **Shift** on the keyboard and then scrolling down and selecting the last file.

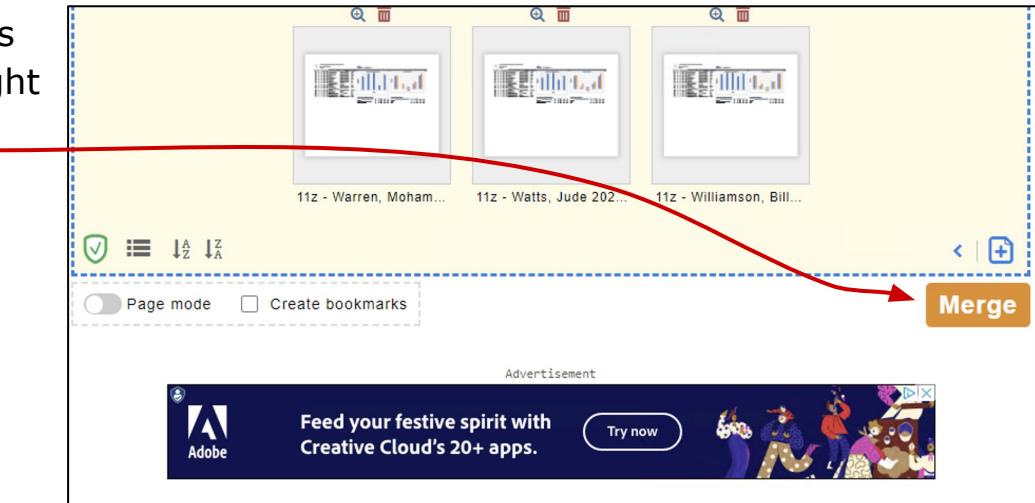
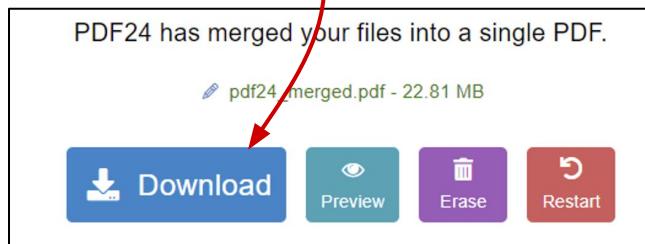
Press **Open** to upload the PDFs to the site.



# Combining PDFs into a single file for printing

Once all the files have been uploaded, press the orange **Merge** button to the bottom-right of the yellowish area.

After a few moments a blue **Download** button will appear which you can use to download your merged PDF.



Once downloaded, you can print the merged PDF. You will need to set your printer options to print **one side per page** so that each Pupil Insight Sheet is on its own page.

Note: if two assessment perspectives were used then the PDF will be designed for an A3 page.

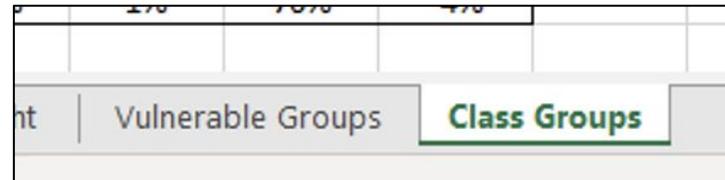
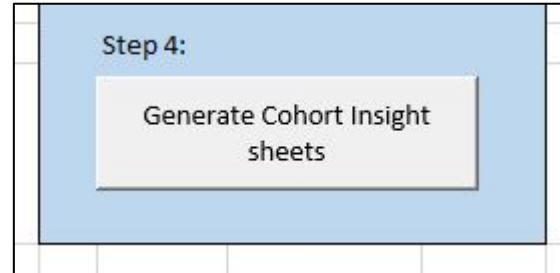
## 4. Cohort analysis

# Generating cohort analysis sheets

The final element of the AEAS is the cohort analysis sheets that allow you to analyse student performance by pupil vulnerability groups and class (teaching) groups.

To generate these, return to the **Home** tab and click on the button labelled **Step 4: Generate Cohort Insight sheets**.

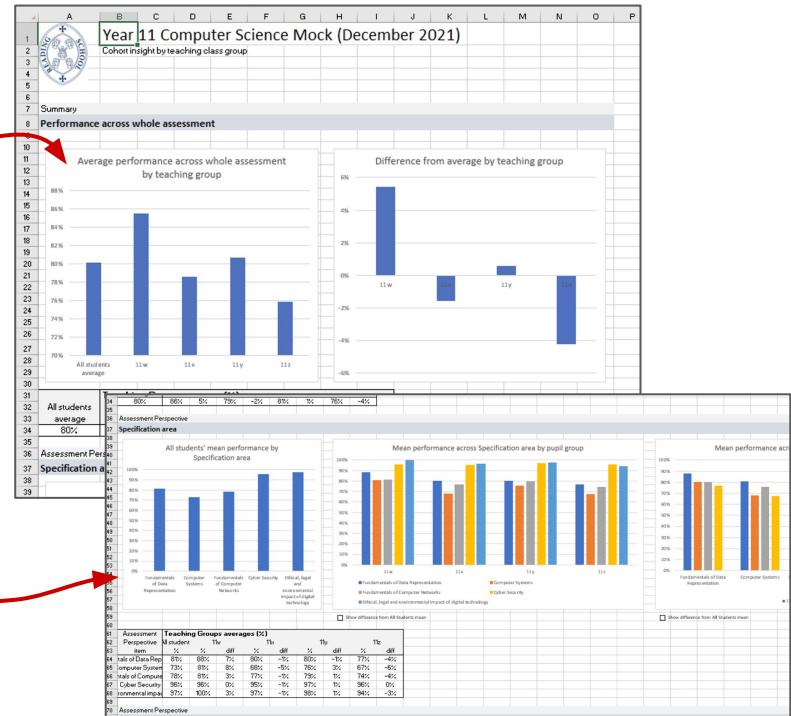
Give the AEAS a moment or two and you will see two new tabs appear named **Vulnerable Groups** and **Class Groups**.



# Using the cohort insight sheets

Each of the cohort insight sheets (Vulnerable Groups and Class Groups) operates in the same way and follows the same structure, comprising:

- A summary area that shows the average score for each student group for the assessment as a whole.
- An area for each assessment perspective, with graphs showing the average marks for all students across each assessment perspective category as well as performance within each assessment perspective category, broken down by pupil group.



The charts and data in the summary tables on this sheet provide clear insight as to areas of relative strength and weakness across your assessment for each pupil group.

# Gaining further insight into each pupil group

Beneath each chart in the assessment perspective areas is a tickbox that can be used to toggle between seeing the average % achieved by each pupil group, or the difference from the % achieve by all students. This can help make it easier to identify deviation from average performance.

It is also possible to select any chart within a chart insight sheet and filter out assessment perspective categories or pupil groups to allow you to "drill-down" and focus on particular areas of interest. To do this, simply select a chart and click on the filter icon (it looks like a funnel) to the right of the chart. Ensure you press **Apply** after selecting the data to include in your chart.



That's it! Thanks for using the AEAS.