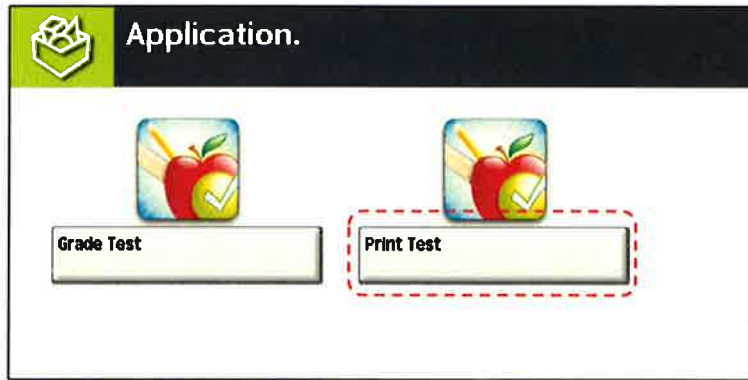


### 3. Operation

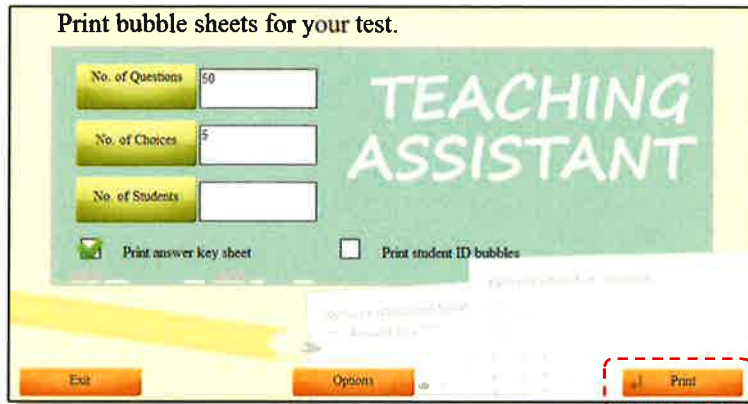
Teaching Assistant consists of two components: one component to print the tests, the second for automated grading. The grading component will only support tests printed from Teaching Assistant.

#### 3.1 Creating Tests

1. Open the Applications screen (by pressing the 'Application' key on the panel).



2. Press 'Print Test' button.



3. Enter values for:
  - a. Number of Questions to appear on the bubble sheet test page. Instructors can select from 2-500 questions.
  - b. Number of Answer Choices for each question. Instructors can designate from 2-8 choices. All questions will have the same number of choices when printed. Note: Multiple choice/multiple answer test questions are valid. True/False questions are valid as well using the first two bubbles in the row.
  - c. Number of Students taking the test. No limit is set for number of students.
4. Select additional options:
  - a. Check 'Print Answer Key' if a blank answer key page is required for grading. Default mode for Teaching Assistant will automatically print an answer key.

- b. Check the 'Print Student ID bubbles' checkbox if students are required to enter their IDs on the answer sheets. Default mode for Teaching Assistant will not enable this feature.
5. Press Green button to start printing (or touch the Print button on the panel, or press the Enter key on the keypad).
6. MFP will now print the blank test sheets.
7. Blank sheets (excluding the answer key page) are distributed to the class, along with the test questions.
8. Students select an answer by shading the corresponding bubble with either a pencil or pen.  
Note: KYOCERA Document Solutions recommends that black pen or pencil be used to fill in sheet for best results. Sheet bubbles should be marked as completely as possible.

### Printing Options

To temporarily change the test title, press the *Title* button. The test title can be changed to test-specific text such as "Math Exam – 5<sup>th</sup> Grade". The title will be printed on all test sheets and will also appear on reports that are printed after grading. Changes made to the Title and Info fields are temporary and will revert to "Kyocera Teaching Assistant" every time the application is launched.

Up to 45 characters can be entered in the Title field. The Info field is printed in smaller font and can accommodate up to 70 characters of text.

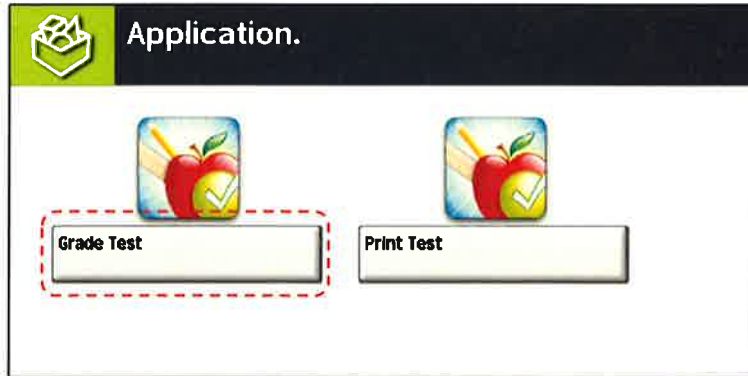
Printing of test sheets can be tracked in a cost control system by entering a valid account code in the Account Code field. This code must correspond to a code setup on the MFP. The code could relate to a department, individual or function in the organization.

If Teaching Assistant is required to use an Account Code for all printing, it can be entered in the System Settings screen. To access the System Settings screen, please press the System Settings button and authenticate as an administrator.

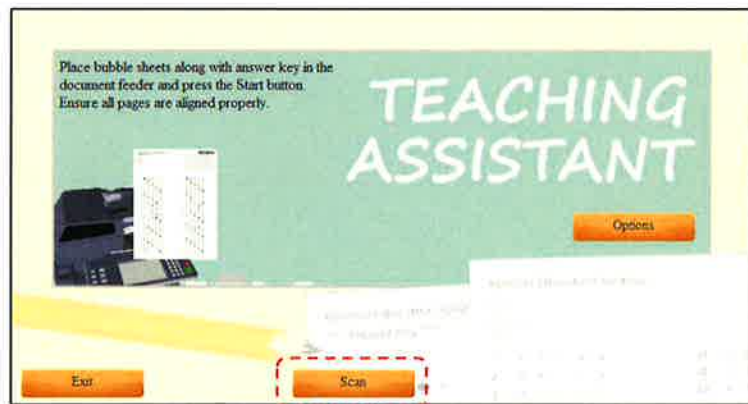


### 3.2 Grading Tests

1. Teacher must fill out the correct answers on the 'Answer Key' page. Ensure all questions are answered.
2. Open the Applications screen (accessed by pressing the 'Application' key on the panel).

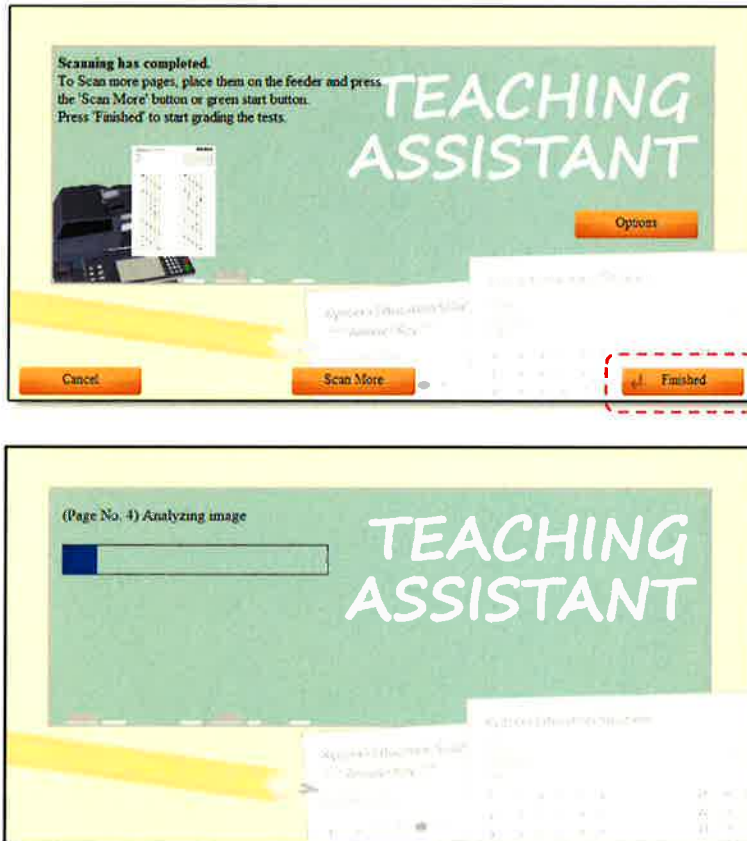


3. Press 'Grade Test' button.
4. Arrange the test sheets so that they are all (a) facing the same side, (b) aligned the same way.
5. Place answer key on top of the stack. Note: Teaching Assistant will recognize the answer key no matter where it is placed in stack.
6. Place all the test sheets and answer key page in the document processor:
  - a. Printed side face-up.
  - b. Long-edge of the paper in the document processor. Pages must be fed in "portrait" position for processing.



7. Press the Green button (or, the Enter key on the keypad, or the Scan button on the panel).

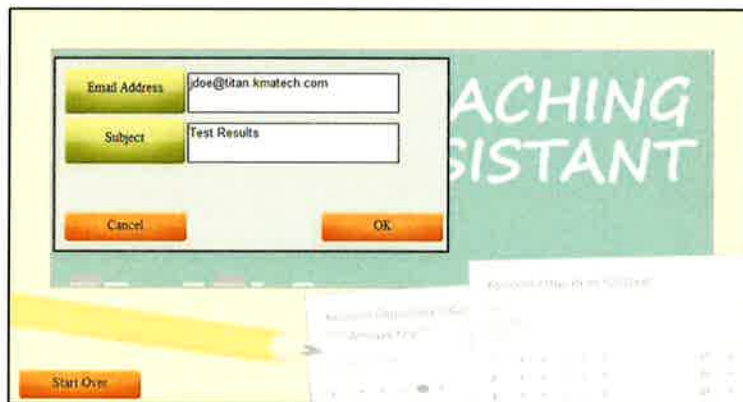
8. After scanning is completed, press the 'Finished' button on the panel (or press the enter key on the keypad). Once you have selected 'Finished', Teaching Assistant will begin analyzing scanned data.



9. After analysis and grading is completed automatically, four options are presented for report generation.

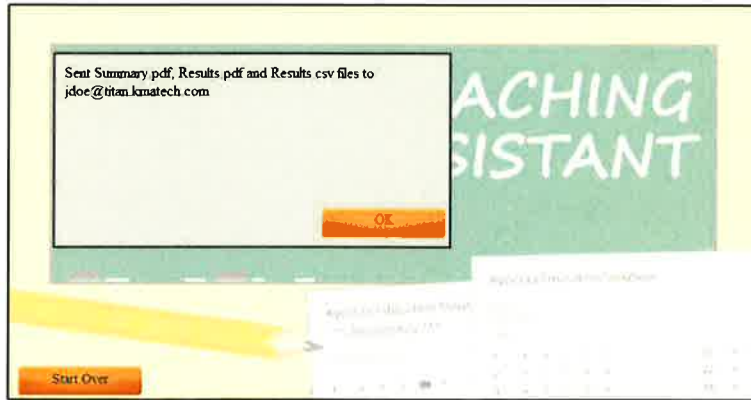


10. The Four Choices include: Print Summary; Print Details; Email Results; Save to USB.
- Press 'Print Summary' button to print result summary. This report will provide key information on student scores.
  - Press 'Print Details' button to print a detailed summary. This report will include the graded tests with incorrect answers marked.  
Note: Additional information about the summary and detailed reports is in [Section 4](#).
  - Press 'Email Results' button to send the report to an email address. The MFP will prompt to enter the destination email address.  
(Note: SMTP settings must be configured as described in [section 6.1](#) for this feature to work.)



- Press 'Save to USB' to save the results (as a PDF) to a USB flash drive. The USB drive must be inserted in the MFP prior to pressing the Save to USB button. After the files are saved, the drive must be 'cleanly-ejected' by pressing the 'Remove' button on the Job

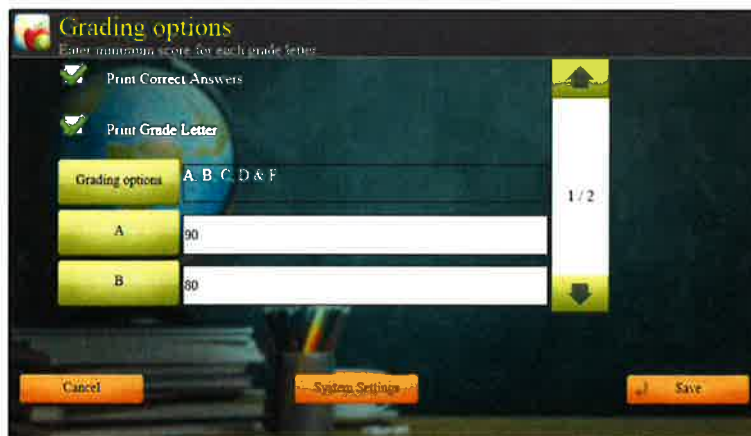
Status/cancel screen Removable Memory tab.



## Grading Options

Note: Changes made to these options are temporary and will revert to defaults each time Teaching Assistant is launched. To make permanent changes, refer to section on [Configuring Grading Application](#).

To disable printing the correct answers on detailed reports, uncheck the “Print Correct Answers” check box. If grade letters are not required, uncheck the “Print Grade Letter” check box in the options screen. To edit the percentage threshold for each grade letter, press the grade button and edit the numeric value.



## 4. Reports

After the grading process is complete, Teaching Assistant will allow the instructor to either print the reports at the MFP or export them in PDF format. Exported reports can be sent directly to an instructor as e-mail attachments or saved to USB flash drives.

### 4.1 Summary Report

The Summary Report enables an instructor to tell at a glance how the students fared, the difficulty of the overall test and identifies the easiest and hardest questions for the students. Summary reports consist of the following elements.

#### Test Scores Table

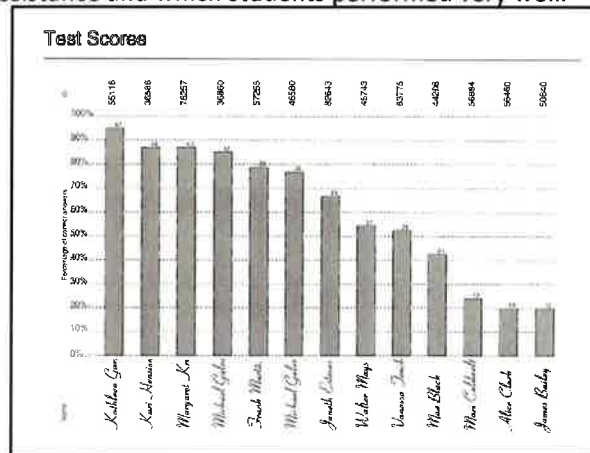
Lists each student's score as points, percentage and percentile.

- The 'No.' column contains the student ID as marked on the ID bubbles.
- The 'Name' column contains student names as written by each student - in the student's own handwriting.
- The table is ordered by score, ranking the highest scoring student first.

Test Scores		Fairfield School District 225 SUNSHINE PARKWAY NJ		
No.	Name	Correct	Percent	Percentile
15805	Dylan Miller	87	94%	88
11053	Breake Murray	87	94%	88
18822	Jacob Blackwell	87	94%	88
13543	Yule Li	45	90%	80
12306	Mark Lee	45	90%	80
13284	Abraham Szwarczyn	44	88%	76
88061	Bryan Hamilton	42	84%	72
18873	Kerry Johnson	81	82%	68
78802	Dorothy Joo	40	80%	56
80258	Tom Johnston	40	80%	56
77828	Prashant Datta	40	80%	56
82786	Matthew Miller	38	74%	48
80240	Ronald Mayfield	37	74%	48
17814	Billy Frost	35	72%	44
88044	Robert Kelly	35	70%	32

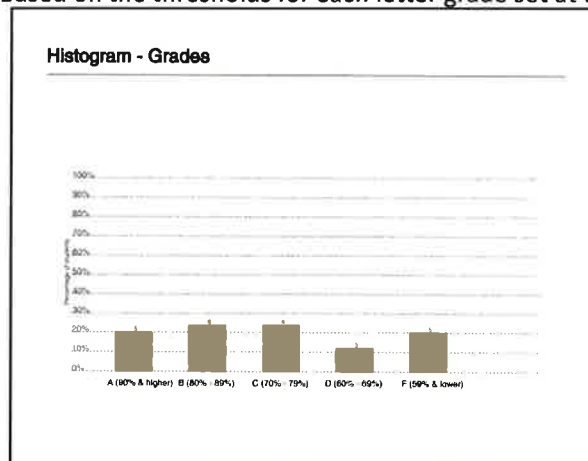
### Test Scores Chart

Bar-graph of student scores ordered by student performance. Instructors can easily review opportunities for extra assistance and which students performed very well.



### Histogram of grades

Shows the number of students who scored each grade letter: A, B, C, D and F. (Note: Grades in the histogram report will be based on the thresholds for each letter grade set at the device.)





### Test Statistics

Statistics on test questions help the instructor focus on areas of the test where most students had difficulty.

- Lowest and highest scores.
- Average and Median scores.
- List of 10 hardest and 10 easiest questions, based on actual cumulative test results.

Statistic		Value
Lowest score		21
Highest score		47
Average		35.50
Median		37

10 Hardest Questions		10 Easiest Questions	
Question#	Correct responses	Question#	Correct responses
26	13	18	23
39	14	31	22
15	15	48	21
16	15	45	21
34	15	30	21
43	15	29	21
5	16	19	21
6	16	17	21
9	16	3	21
20	16	2	21

### Response Frequencies

Table showing the percentage of students selecting a particular answer choice, for each question. This information is useful to analyze patterns in student responses.

Q.No.	A	B	C	D	E	F	Blank
1	72%	16%	9%	16%			
2	12%	80%					
3	12%	3%	73%	12%			
4	3%		29%	85%	10%		
5	12%	2%	2%	12%	85%	12%	
6		3%	10%				87%
7	88%		13%		10%	10%	
8	13%	40%	13%	3%		10%	
9		5%	60%			9%	
10		5%		88%	10%		
11	3%	13%	3%		79%		
12	3%	5%	5%		3%	85%	
13	72%	20%					
14	12%	60%	10%	18%	3%		
15	13%	13%	85%	5%			
16		3%	10%	80%		5%	
17	12%					87%	3%
18	3%		3%	5%	3%	87%	
19	82%	3%		3%	3%		
20	5%	72%	5%		12%	3%	
21		12%	85%	12%	13%	3%	
22	10%	3%		80%		3%	
23		5%		5%	80%	5%	
24		3%	29%		3%	79%	
25	85%			10%		3%	

## 4.2 Detailed Report

The Detailed Report is a copy of each student's test sheet with incorrect responses highlighted. The total score is printed at the top of each page.

Note: On Color MFPs, the highlight boxes will be shown in red; on B&W MFPs, the highlight boxes and grade will show in grey.

Fairfield School District  
225 South Hill, Fairview, NJ  
Name: *Barry Johnson*  
Class/Text:  
Date:  
\* Follow instructions on question sheet!  
\* Fill in circles completely. No change, no ink marks, etc.

41 / 50 (82%)

Fill in your ID (from top to bottom)

Page 1 of 1

## 4.3 CSV Files

In addition to PDF reports that are formatted for viewing and printing, the grading results are exported to a CSV (Comma Separated Values) format file. CSV files can be imported into spreadsheet applications such as Microsoft Excel for further tabulation and processing.

### Grading Results

Following fields of information are saved in results.csv:

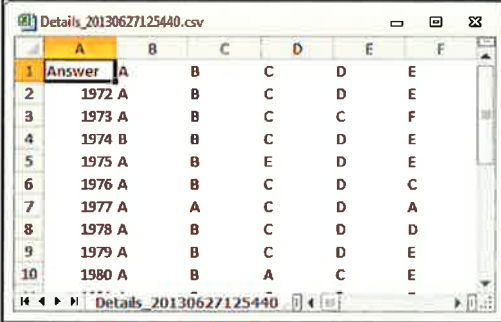
- Barcode number
- Student ID
- Correct answers
- Incorrect answers
- Percentage score
- Grade letter

1	Barcode	Id	Correct	Incorrect	Percent	Grade
2	1798	15158140	47	3	94%	A
3	1803	28105813	46	4	92%	A
4	1805	42136162	38	12	76%	C
5	1802	66260311	37	13	74%	C
6	1801	41072434	36	14	72%	C
7	1799	16088558	35	15	70%	C
8	1800	55462370	34	16	68%	D
9	1797	88878422	29	21	58%	F
10	1804	47123832	26	24	52%	F

## Student responses

Student responses recognized by teaching assistant are exported as details.csv:

- Answers marked in answer key
- Answers selected by each student, one per line



The screenshot shows a spreadsheet window titled 'Details\_20130627125440.csv'. The spreadsheet has columns labeled A through F and rows numbered 1 through 10. Row 1 is the header row with 'Answer' in column A. Rows 2 through 10 contain data for years 1972 through 1980. Each row contains a year in column A and letters in columns B through F. The letters represent answers for different categories.

	A	B	C	D	E	F
1	Answer	A	B	C	D	E
2	1972	A	B	C	D	E
3	1973	A	B	C	C	F
4	1974	B	B	C	D	E
5	1975	A	B	E	D	E
6	1976	A	B	C	D	C
7	1977	A	A	C	D	A
8	1978	A	B	C	D	D
9	1979	A	B	C	D	E
10	1980	A	B	A	C	E