Grade Book

Mr. Jackson is a busy teacher who has a hard time organizing and calculating all of his students' grades or scores on assignments. Most teachers keep track of their students' grades in a grade book. What information might be put in a grade book? How could the information be organized? How might you be able to use computers to help Mr. Jackson?

✏ Plan It

Create a spreadsheet grade book that Mr. Jackson can use to quickly and easily organize and calculate his students' scores. Look at the following example:

	A	B	C	D	E	F	G	H
1	Mr. Jackson's Mathematics Grade Book							
2								
3	Student Name	Assignment 1	Assignment 2	Assignment 3	Assignment 4	Assignment 5	Total Score	Average Score
4	Brown, Danielle	78	85	92	72	81	408	81.60
5	Gomez, Mauricio	92	88	94	100	95	469	93.80
6	Jones, Michael	69	74	52	80	75	350	70.00
7	Kim, Aisha	85	90	87	86	79	427	85.40
8	Thomas, Zachary	72	70	81	75	68	366	73.20

Mathematics

Grade Book Example

Think about the following questions, and discuss your ideas with your partner. You might want to write your ideas on a sheet of paper and draw a table that shows how you might organize the information. Keep in mind that you can use make-believe information for now. Mr. Jackson can put the real information in the spreadsheet later.

- For what school subjects might Mr. Jackson need to keep scores? Pick one subject to use for this activity.

- What could be the names of the five sample students who will be listed in the grade book?

- What are some possible scores that students might have received for five different assignments?

- How could you organize this information?

Remember to use the rubric as a guide as you plan, do, review, and share.

For help on how to do certain skills, look at the following groups in the *Help Guide:*

- **Spreadsheets Group 2:** Selecting Cells, Rows, and Columns

- **Spreadsheets Group 3:** Using Worksheets

- **Spreadsheets Group 4:** Adding and Working with Information

- **Spreadsheets Group 5:** Changing the Look of Information and Worksheets

- **Spreadsheets Group 7:** Doing Math

Do It

1. Start the spreadsheet software, and open a new, blank spreadsheet.

2. Rename Sheet 1 with the name of the school subject you selected.

3. In cell A1, type a title for the worksheet. Change the look of the title any way you want.

4. In cell A3, type "Student Name" as that column's heading. Then, in cells B3 through E3, type "Assignment 1", "Assignment 2", "Assignment 3", and "Assignment 4". (You will add the fifth assignment later.) Finally, type "Total Score" and "Average Score" in cells F3 and G3.

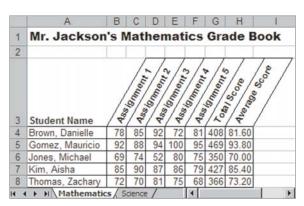5. Change the look of the column headings in row 3.

> **Challenge:** You might consider rotating the column headings in cells B3 through G3 so they are placed at an angle. Then, add borders around those cells. (For help, see Spreadsheets Skill 5.7: To change the alignment of information in a cell or cells.) (See the Grade Book Mathematics Worksheet Challenge Example at the end of this section.)

6. Change the width of columns B through G to fit the information.

7. In cells A4 through A9, type the names of the five students. For best results, type each student's last name, or surname, first. Change the column width, if needed.

8. Type the assignment scores in the four cells to the right of each student's name.

9. In cell F4, insert a Sum function that will calculate the first student's total score. Then, fill the **Sum** function into the four cells below.

10. In cell G4, insert an **Average** function that will calculate the first student's average score. Make sure the cell range includes only the cells with assignment scores (cells B4 through E4) and not the total score (cell F4).
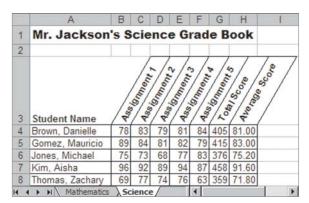
11. Copy the **Average** function into the cells for each of the other four students, below.

12. Change the average scores so they all have two decimal places. Change the column width as needed.

13. To make sure the grade book will work as it should when Mr. Jackson adds new assignments, insert a column between columns E and F.

14. In cell F3, type "Assignment 5" as the column heading. Then, type the grade scores that each of the five students received on the fifth assignment. Notice that each student's total score and average score changes all by itself when the new information is added. (**NOTE:** If you are using OpenOffice.org Calc*, this may not happen automatically. You may have to reinsert the functions to recalculate the values.)

15. Use the students' names in column A to put rows 4 through 8 in alphabetical or ascending order.

16. As desired, add borders around the worksheet cells.

> **Challenge:** You might want to make another grade book worksheet for a second school subject. Just duplicate the formatted worksheet, and give it a new name. (For help, see Spreadsheet Skill 3.6: To make a copy of a worksheet.) Then, change the worksheet title, and put in new assignment scores for the students. You should also rename the worksheet's tab. (See the Grade Book Science Worksheet Challenge Example at the end of this section.)

17. Delete any unused worksheets.

18. Save your work as directed.

Student Name	Assignment 1	Assignment 2	Assignment 3	Assignment 4	Assignment 5	Total Score	Average Score
Brown, Danielle	78	85	92	72	81	408	81.60
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Mr. Jackson's Mathematics Grade Book

Mathematics / Science

Grade Book Mathematics Worksheet Challenge Example

Grade Book Science Worksheet Challenge Example

Review It

Look over your completed worksheet. Make sure it has the following elements:

- Title that explains the type of information in the worksheet

- Names of five students sorted in alphabetical order

- Formulas that calculate each student's total score and average score

- New names on all used worksheets, with all unused worksheets deleted

If any elements are missing, add them now. If you want, make other changes, as well. Remember to save your work when you are finished.

Share It

Be prepared to discuss your answers to the following questions:

- How would the worksheet you created make Mr. Jackson's job easier?

- What is the most useful spreadsheet feature you used today? Why?

- For what other types of activities might you use a spreadsheet's Sum and Average functions?

- Is a spreadsheet the most productive tool to use for a grade book? Why or why not?