

## Subject #7: Math

**Project #74: Mastering Excel (for Beginners).** Show students how to do the 22 simplest but most oft-used Excel skills (alphabetizing, adding date, formatting, charts, formulas and more).

Higher-order thinking skills	Technology-specific:	Subject Area/ Learning-specific	Standard: NETS-S
<i>Interpreting a, predicting consequences</i>	<i>Use Excel to turn data into information, formatting</i>	<i>Math, graphing, problem-solving, critical thinking</i>	<i>4.b, 6.a</i>

Grade level: 4-8

Prior knowledge: Project 73: *Graph a Class Survey*, Project 72: *Check Your Math*

Time required: 45 minutes, 3 sessions



Software required: Excel

Vocabulary: data, graph, worksheet, book, formula, hyperlink, sigma, average, auto-sum, max, min, count, chart, F11

### Lesson Description

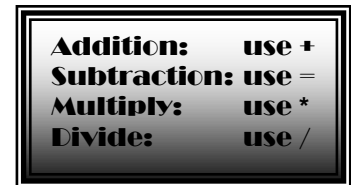
- Excel is intimidating even for adults, but students who have reached this point in their Excel training can learn a few more critical skills. These provide the scaffolding for more experiential learning outcomes using this spreadsheet program.

### Computer Activity

- Open Excel. Remind students of the program layout. Run through Project 73 and how to graph a class survey quickly. Make the assumption they know this and you are simply reviewing.
- While they're in the survey worksheet, have them rename/recolor the worksheet tab, alphabetize the topics using the A-Z tool , format the headings, widen rows and columns, add the date with a keyboard shortcut.
- Remind them how to add, subtract, multiply, divide with Excel formulas. Have them solve several problems.
- Have them add a column of numbers (more than 5) with the auto-sum tool . Now have them average the

column using the auto-sum's drop-down list.

- Have them insert a picture from clip art or Google images; resize to fit in a cell group. Show them how to turn the image into a hyperlink to their network file.
- Pass out a sample of the quiz (see next pages). Give students 45 minutes, working in pairs, to go through it prior to test day. Walk around, observe where there are problems, help them as needed.
- The next class period, give students 45 minutes to complete the quiz, but working alone. Use rubric (see next pages) to grade it.



### Extensions

- Allow students to take test in pairs.
- Show students how to use all items in the auto-sum drop down list (count, max, min).

### Troubleshooting Tips

- I lost my data (push Ctrl+Z, one at a time, until it reappears).*
- My chart is empty (Did you select the data before pushing F11?)*


# Excel Quiz with Fundamental Skills

[Click here to download Excel file](http://smaatech.wikispaces.com/Excel+Quiz—22+Skills) or go to <http://smaatech.wikispaces.com/Excel+Quiz—22+Skills>

## FIFTH GRADE EXCEL QUIZ

1	Read all directions first	
2	Enter information in the correction location (see Column A)	4
3	If you get stuck, move on to the next step	5
		6

**Watch spelling—errors count against you if you're stuck, you may use the 'help' files When you're finished, try the Extra Credit**

Cell	Skill																																									
A1	Enter title 'Fifth Grade Skills'--font size 26; Merge-center over A1-F1 rename the worksheet tab 'quiz'	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> <p><b>Extra Credit</b></p> <p>Step 8: format chart (change bars, colors, background)</p> <p>Enter time using keyboard shortcut</p> <p>Turn picture into a hyperlink to your file folder</p> <p>Add text 'Click Here for Falcon.net'; make it a hyperlink to falcon.net</p> </div> <table border="1" style="margin: 0 auto; border-collapse: collapse;"> <thead> <tr> <th>Subject</th> <th>boys</th> <th>girls</th> </tr> </thead> <tbody> <tr> <td>Arts</td> <td>5</td> <td>3</td> </tr> <tr> <td>LA</td> <td>0</td> <td>0</td> </tr> <tr> <td>Math</td> <td>5</td> <td>8</td> </tr> <tr> <td>Science</td> <td>1</td> <td>0</td> </tr> </tbody> </table>	Subject	boys	girls	Arts	5	3	LA	0	0	Math	5	8	Science	1	0																									
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Arts	5		3																																							
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A2	recolor the 'quiz' tab																																									
A3	Your name--font size 10, font color red																																									
A4	Your teacher's name; font comic sans																																									
G1-J6	The date, using keyboard shortcut																																									
	Insert any picture																																									
	resize Row 3 and Column D																																									
A6-C10	Enter the data and labels to the right																																									
	Include shading and border																																									
	Make a chart from data (step 9); add a title and the X and Y labels																																									
																																										
A12-E21	Color row 5 and row 11 blue (on the 'quiz' worksheet)																																									
	Type the table below, including all data; use Excel formulas to find the answers																																									
	<table border="1" style="border-collapse: collapse;"> <thead> <tr> <th style="background-color: #cccccc;">Average</th> <th style="background-color: #cccccc;">Addition</th> <th style="background-color: #cccccc;">Subtract</th> <th style="background-color: #cccccc;">Multiply</th> <th style="background-color: #cccccc;">Divide</th> </tr> </thead> <tbody> <tr> <td>22</td> <td>44</td> <td>123</td> <td>33</td> <td>144</td> </tr> <tr> <td>33</td> <td>32</td> <td>33</td> <td>55</td> <td>12</td> </tr> <tr> <td>44</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>55</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>66</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>77</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>88</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Average	Addition	Subtract	Multiply	Divide	22	44	123	33	144	33	32	33	55	12	44					55					66					77					88					
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# **EXCEL SKILLS GRADING RUBRIC**

Name \_\_\_\_\_ Teacher \_\_\_\_\_

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1. Worksheet title added, font size 26 \_\_\_\_\_ in A1 \_\_\_\_\_
2. Title merge-centered A1-F1 \_\_\_\_\_
3. Worksheet tab renamed \_\_\_\_\_ recolored \_\_\_\_\_
4. Name filled in, font size 10 \_\_\_\_\_ font color red \_\_\_\_\_ in A2 \_\_\_\_\_
5. Teacher's name filled in, font comic sans \_\_\_\_\_ in A3 \_\_\_\_\_
6. Date filled in (using keyboard shortcut) \_\_\_\_\_ in A4 \_\_\_\_\_
7. Picture added (any picture) \_\_\_\_\_ in G1-J6 \_\_\_\_\_
8. Row 3 resized \_\_\_\_\_ Column D resized \_\_\_\_\_
9. Data table entered (labels, data) \_\_\_\_\_ in A6-C10 \_\_\_\_\_
10. Data table heading row shaded \_\_\_\_\_ with border \_\_\_\_\_
11. Chart created from data \_\_\_\_ Titles added (chart name, x/y axis labeled) \_\_\_\_
12. Row 5 colored blue \_\_\_\_\_ Row 11 colored blue \_\_\_\_\_
13. Data entered from 2<sup>nd</sup> table \_\_\_\_\_
14. Average calculated with Excel formula \_\_\_\_\_
15. Addition calculated with Excel formula \_\_\_\_\_
16. Subtraction calculated with Excel formula \_\_\_\_\_
17. Multiplication calculated with Excel formula \_\_\_\_\_
18. Division calculated with Excel formula \_\_\_\_\_
19. No spelling errors \_\_\_\_\_
20. Overall \_\_\_\_\_

## **EXTRA CREDIT**

1. *Format chart (change bars, colors, background)* \_\_\_\_\_
2. *Turn the picture into a hyperlink* \_\_\_\_\_
3. *Add text 'Click here for Falcon.net'* \_\_\_\_\_
4. *Enter time using keyboard shortcut* \_\_\_\_\_