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Introduction

How to Use This Book (cont.)

Components of the Program

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<page-header><text><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></text></page-header>	 Summary Pages Brief description of new skill(s) being introduced Detailed step-by-step instructions of new skill(s) Multiple Windows screenshots to help guide instruction and offer support (Macintosh screenshots provided on Teacher Resource CD) Quick Tip provides shortcut or alternate way of using application
<page-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></page-header>	 Procedure Sections Brief description of content-based lesson including content standard and technology skills Materials list Suggestions for teacher preparation Detailed step-by-step sequential instructions for teaching the lesson Extension ideas for differentiation
<page-header><image/><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header><section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></section-header></page-header>	 Student Directions List of steps for students to use while at the computers Help students complete the activity with little or no guidance
<section-header><section-header> Image: state state</section-header></section-header>	 Rubrics Allow for standardized assessment of student work using specific criteria and a point grading scale Include space for both teacher and student to assess completed work Blank rubric on the Teacher Resource CD

How to Use This Book (cont.)

Components of the Program (cont.)

100 (9485 3)1869 1828 7)2078 8	Student Samples	
Favorite Colors in Our Class	 Provide examples of what each project will look lik To be distributed or projected during the lesson to further instruction and guidance 	e when completed provide students with
Rept faul service	Project-Based Learning Introduction	
Wind at an integrate to dealer the advantage of the second measurement the second measurement of the second measu	Brief introduction to the project-based learning ap	proach
Explanation of how project-based learning fits with technology and integrates different subject areas and standards		
Image: State	 Description of how assessment is a critical piece or 	f this learning process
Martine Souares	Project-Based Learning Activities	
 Allow students to apply everything they have learned throughout the book to real-life project-based activities Lessons include: activity description, content standard, technology skills, materials list, suggested teacher preparation, detailed procedure steps, and extension ideas for differentiation. 		
Surveying Favorites	Graphic Organizers	
The section of the first sector of a	 Included with each project-based learning activity 	,
Allow students to organize text and data before entering it into <i>Excel</i> worksheets		
Annor the patient halos on a proceeding of game. • Other a new assessment on an order than there for a para statement halo. • State have a second on the statement of the stat		
Auroint	Appendices Te	eacher Resource CD
Content Area Index	Works Cited and Microsoft Excel In the Gaussian	Student Samples
Additional Actions and Actions and Action and Acti	Content-Area Index	Graphic Organizers
All and a set of the set of	Teacher Resource CD Index	Grids
Transition and Annual Weinscher Beiter Mitteller Generationnen Gamma Generationen	Learn & Use Series Description	Mac Screenshots
Vergene derge folge Vergene der der gester berinnen Der son berinnen Der son ber		Blank Rubric

Changing Rows and Columns **Summary**

Microsoft Excel offers several formatting options to help you make the text and the data within cells appear the way you want it to. Wrapping text, for example, will keep the cell contents within the width of the cell. Merging cells is an easy way to combine cells when necessary.





ext alignment		Orientation
General Yertical: Bottom	Tindent:	T text -+
Justify distributed ext control Wrap text Shrink to fit		0 🚔 Dotrees
ight-to-left Text direction:		

Quick Tip

You can also merge cells by using the **Merge and Center** button on the *Formatting* toolbar.



Step-by-Step Directions

Aligning the Contents of a Cell

- 1. Select the cell or cells you want to align.
- 2. On the *Formatting* toolbar, click one of the three align buttons (Align Left aligns contents to the left of the cell, Align Center centers the contents of the cell, and Align Right aligns contents to the right of the cell). The *Formatting* toolbar can be found by clicking on View, choosing *Toolbars* > and then *Formatting*.

Wrapping Text Within a Cell

- 1. Click the cell, or cells, in which you want the text to wrap.
- 2. Click **Format** on the Menu bar.
- 3. Choose **Cells...**
- 4. On the Format Cells dialog box, click on the *Alignment* tab to bring it to the forefront.
- 5. Under *Text Control*, click the *Wrap text* box.
- 6. Click **OK**.

Merging Cells

- 1. Select the cells you want to merge, or combine into one.
- 2. Click Format on the Menu bar
- 3. Choose **Cells...**
- 4. On the Format Cells dialog box, click on the *Alignment* tab to bring it to the forefront.
- 5. Under Text Control, click the Merge Cells box.
- 6. Click **OK**.

.

Changing Rows and Columns
Science
Grades 3–5

Cloud Information Chart



Lesson Description

Students change the rows and columns in worksheets as they record and organize information about clouds and related weather.

Content Standard

Students know that water exists in the air in different forms.

Technology Skill

Students will change rows and columns in worksheets.

Additional Technology Skills

- adding color to cells
- adding text to cells
- changing the font and the font size
- inserting images
- saving and printing work

Materials

- related images downloaded and saved in a folder
- books and other resources about weather, clouds, or other topics of study
- student sample (filename: *cloud.xls*)

Teacher Preparation

- 1. Print and review the student sample (filename: *cloud.xls*).
- 2. Review and copy images for student use. Create a folder that is accessible to students.
- 3. Gather books and other resources for this lesson.

Procedure

- 1. Explain to the students that they will be using a workbook application to organize information about clouds.
- 2. Open a new workbook (or spreadsheet file). Review how to use the **Select All** button to change the font to Times and the font size to 12. (See page 27.)
- 3. Demonstrate to students how to create titles for their projects. Type a title into the first cell in the first row (A1) using font size 20. Once you have entered a title, discuss how to merge cells. Show them how to select the first four cells in row 1 (A1, B1, C1 and D1). Then, click on the Merge and Center button on the Formatting toolbar to merge the four cells into one cell. (See page 40.) Remember, to find the Formatting toolbar, click on View, choose Toolbars > and then Formatting.
- 4. Next, show students how to enter titles. They will be putting these four titles into four columns: *Cloud Type, Photo, Cloud Level* and *Related Weather.*

Procedure (cont.)

- Show students how to enter each column title into its own cell. Then, show students how to bold and center those titles. Point out the **Bold** and **Align Center** buttons on the *Formatting* toolbar. (See pages 27 and 40 respectively.)
- Show students how to set the column width and row height to 2 inches. (See page 27.)
- 7. Once titles are in place, students can enter their facts about clouds. Explain horizontal and vertical alignment, text wrap, and text direction. Remind students to click **Format** on the Menu bar, choose **Cells...** and then select the **Alignment** tab. Show students how to center, align, and wrap text in the cells.
- Model using the Fill Color button on the Formatting toolbar to shade the rows and columns with color. (See page 14.)
- 9. Next, show students how to insert photos. They will click **Insert** on the Menu bar, choose *Picture*, and then choose *From File...* to place images in the appropriate cells on the worksheets. Be sure to follow your school's policy for citing images.
- 10. Show students how to adjust the size of their images manually by dragging the corner arrow of the selected images.

- 11. Give students sufficient time to finish their projects. Show students the student sample (filename: *cloud.xls*) before they begin working independently. You can decide on the number of examples you would like students to include in their work.
- 12. Encourage students to be creative with the cell fill colors they choose.
- 13. When students are finished, have them save their work.
- 14. Show students how to print their work. First, have students check their work using *Print Preview*. Click **File** on the Menu bar and choose *Print Preview*. If they are satisfied with their work, have them close the *Print Preview* feature and print their work.
- 15. Have students share their work with you and with their classmates.
- 16. Use the rubric provided on page 48 to assess this lesson.



Extension Ideas

Students can use this format for science and social studies reports as well as book reports.



- 1. Open a new workbook.
- 2. Click the **Select All** button to highlight the entire worksheet.
- 3. Find the *Formatting* toolbar. Click **View** on the Menu bar. Click *Toolbars>* and choose *Formatting*. Use this toolbar to choose the Times font and to set the font size at 12.
- 4. Type your title in the first cell in the first row (A1). Make the font size of the title 20.
- 5. Select the first four cells (A1, B1, C1 and D1). Using the **Merge and Center** button on the *Formatting* toolbar, merge these cells into one.
- 6. Type your column titles. They are *Cloud Type*, *Photo*, *Cloud Level*, and *Related Weather*.
- 7. Select all the titles and click the **Align Center** and **Bold** buttons on the *Formatting* toolbar.
- 8. Set the column width at 2 inches. Highlight the four columns. Click **Format** on the Menu bar. Choose **Column** and then *Width*...
- 9. Set the row height at 2 inches. Highlight the number of rows you will use. Click **Format** on the Menu bar. Choose **Row** and then **Height...**
- 10. Type in your text information.
- 11. Use the **Color Fill** button on the *Formatting* toolbar to add color to rows and columns.
- 12. Center and wrap your text. Click **Format** on the Menu bar, choose **Cells...** Click the **Alignment** tab. Choose Center under *Vertical* and *Center* under *Horizontal*. Check the *Wrap Text* box.
- Add your images. Click **Insert** on the Menu bar. Choose
 Picture > and then *From File...* Adjust the size of your image by dragging the corner arrow of the selected image.
- 14. Save and print your work.

Changing Rows and Columns Science

Assessment Rubric

Strong (3 Points)	The student made all the formatting changes necessary to change rows and columns.	The student included accurate information and images.	The student entered all text correctly.	The student fully understands the lesson objectives.
Effective (2 Points)	The student made most of the formatting changes necessary to change rows and columns.	The student included mostly accurate information and images.	The student entered most of the text correctly.	The student understands the lesson objectives.
Emerging (1 Point)	The student made some of the formatting changes necessary to change rows and columns.	The student included some accurate information and images.	The student entered some of the text correctly.	The student somewhat understands the lesson objectives.
Not Yet (0 Points)	The student did not make any of the formatting changes necessary to change rows and columns.	The student included inaccurate information and images.	The student did not enter the text correctly.	The student does not understand the lesson objectives.
Self Score				
Teacher Score				
Total Score				
Comments:				