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Components of the Program

Introduction

- Concise overview of effective use of technology in the classroom
- Brief introduction to software and the 12 featured skills
- Description of how to best utilize this product in the classroom
- Correlation to standards

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

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

Student Directions

- List of steps for students to use while at the computers
- Help students complete the activity with little or no guidance

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.)*

Student Samples
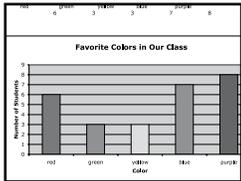
- Provide examples of what each project will look like when completed
- To be distributed or projected during the lesson to provide students with further instruction and guidance

Project-Based Learning Introduction

- Brief introduction to the project-based learning approach
- Explanation of how project-based learning fits with technology and integrates different subject areas and standards
- Description of how assessment is a critical piece of this learning process

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.

Graphic Organizers

- Included with each project-based learning activity
- Allow students to organize text and data before entering it into *Excel* worksheets

Appendices

- Works Cited and Other References
- Content-Area Index
- Teacher Resource CD Index
- Learn & Use Series Description

Teacher Resource CD
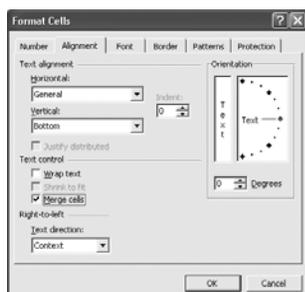
- Student Samples
- Graphic Organizers
- Data Collection Grids
- Mac Screenshots
- Blank Rubric

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.

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**.

Quick Tip

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

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.*)

5. 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.)

6. 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.

8. 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.

Student Directions

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.

13. 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.

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:				