

LESSON 1 Advanced Data Organization, Lesson Opener, p.3

➔ **21st Century Skills** Answers will vary. Students should describe a skill they recently learned well by practicing.

LESSON 1 Reading Guide, p. 4

➔ See page **TM42** of the Teacher Annotated Edition for English Language Learner activity suggestions.

EXERCISE 1-1 Create and Modify List Ranges, p. 5

Step-By-Step Tip In Step 3, explain to students that if the selected range contains data that they want to display as table headers (as in this Exercise), they should check the **My table headers** check box.

EXERCISE 1-1 Create and Modify List Ranges, p. 6

Step-By-Step Tip In Step 18, note that the table displays only the items sold at all concert dates above the average sale made at all concert dates.

EXERCISE 1-2 Use Advanced Filters, p. 7

Step-By-Step Tip In Step 7, point out to students that the row numbers of filtered data are blue to show that a filter has been applied and that all data may not be visible.

EXERCISE 1-3 Create Subtotals, p. 8

Teaching Tip Tell students that they can put page breaks between the groups of items that are subtotaled by clicking **Page Break between groups** in the **Subtotal** dialog box.

EXERCISE 1-4 Group and Outline Data, p. 9

English Learners Make sure English Language Learners understand the meaning of the word *outline*. An outline lays out information in a sequential or hierarchical order.

EXERCISE 1-5 Apply Data Validation Criteria (Continued), p. 11

Teaching Tip Explain to students that the width of the drop-down list is determined by the width of the cell that has the data validation and that they may want to adjust the width so that the entries are not wider than the width of the drop-down list.

EXERCISE 1-7 Remove Duplicate Values, p. 13

Troubleshooting Explain to students that the **Remove Duplicate Values** feature permanently deletes data and that it is a good idea to copy the original range of cells or table to another worksheet or workbook before removing the duplicate values.

Step-By-Step Tip In Step 5, tell students that if there are no duplicate values in the range of cells or table, the message will indicate that no duplicate values were removed.

EXERCISE 1-8 Use the Evaluate Formula Feature, p. 14

Teaching Tip Explain to students that if a cell reference is blank, a zero value (0) is displayed in the **Evaluation** dialog box.

EXERCISE 1-9 Name a Cell Range, p. 15

Differentiated Instruction/Advanced Students Tell advanced students that a name can be used anywhere within a workbook. Therefore, using names makes it easy to refer to a cell or range on another sheet.

Step-By-Step Tip In Step 8, if the word total does not appear in the *Name* box, have students key the word.

EXERCISE 1-11 Modify and Delete a Named Cell Range, p. 17

Intervention Strategy Before beginning this exercise, you may want to review with the class how to find percent of total. To find out what percent of \$9,250 \$350 is, students would use this equation: $350 \div 9,250 = .0378$. They should then move the decimal two spaces to the right and round up to reach the value 3.8%.

Troubleshooting Explain to students that the **Close** button only closes the **Name Manager** dialog box. It is not required to click **Close** to commit changes that they have made.

EXERCISE 1-12 Merge and Split Cells in a Range, p. 18

Solution Use the file **Blues-SF.xlsx** as a solution file for Exercise 1-1 through Exercise 1-12.

21st Century WORKPLACE Feature, Making Complex Choices, p. 19

➤ SkillBuilder Answers

- 1.** In making her decision, Sarah must consider the factors of doing more homework, getting into college, trying out for the school play, and working her after-school job.
- 2.** Answers will vary. Students may respond that Children's Book Shop has decided not to carry a popular book they feel is of low quality. Another decision has been to stock just two copies of a popular book and let customers choose for themselves.
- 3.** Answers will vary. Students should describe their decision-making process, including the factors they considered, and say whether or not they would make the same choice again.

LESSON 1 After You Read, p. 20

Answers to Review Vocabulary

Complete the following statements on a separate piece of paper. Choose from the Vocabulary list on the left to complete the statements.

1. If you create a table from a list of items you can [**convert**], or change, the table back to a normal range of data. (p. 5)
2. When you use an advanced filter, only those items in a range of cells or table that meet certain [**criteria**] will be displayed. (p. 7)
3. A(n) [**name**] can be used in a formula in the same way as a conventional cell reference. (p. 15) name
4. To control the type of data entered into cells, apply [**data validation**]. (p. 10)
5. A(n) [**duplicate value**] is when all values in a row are an exact match of all the values in another row. (p. 13)

Answer to Vocabulary Activity Students makes flash cards for each of the vocabulary words in this lesson. Students use the flash cards to review the vocabulary words and their definitions.

Answers to Review Key Concepts

7. When you use an advanced filter, what happens to data that does not meet the criteria you set? (p. 7)

- | | |
|---------------------------------------|--------------------------|
| A. It is displayed dimly. | C. It is deleted. |
| [B. It is temporarily hidden.] | D. Its value is changed. |

8. What is the total of a group of items within a larger set of items? (p. 8)

- | | |
|----------------------|------------|
| [A. subtotal] | C. AutoSum |
| B. grand total | D. total |

9. Which of the following tools identifies inaccurate data? (p. 12)

- | | |
|---------------------------|---------------------------------|
| A. data validation | [C. Circle Invalid Data] |
| B. Group and Outline Data | D. Evaluate Formula |

10. What does Evaluate Formula do? (p. 14)

- | | |
|---|---|
| A. points to possible sources of an error | [C. steps through a calculation] |
| B. displays tracer arrows | D. displays an explanation of an error |

LESSON 1 PRACTICE IT ACTIVITIES

1. Create a List and Use Advanced Filters, p. 21

Solution The solution for this file activity is **Jobs1-SF.xlsx**.

2. Create Subtotals and Group and Outline Data, p. 22

New Student Strategy If a student did not complete Practice Activity 1, then the solution file for that activity can be used as a data file for this activity.

Solution The solution for this file activity is **Jobs2-SF.xlsx**.

3. Circle Invalid Data and Use Data Validation, p. 23

New Student Strategy If a student did not complete Practice Activity 2, then the solution file for that activity can be used as a data file for this activity.

Solution The solution for this file activity is **Budget3-SF.xlsx**.

LESSON 1 You Try It Activities

4. Evaluate Formulas, p. 24

Solution The solution for this file activity is **Budget4-SF.xlsx**.

5. Name a Cell Range, p. 25

Solution The solution for this file activity is **Budget5-SF**.

LESSON 1 Critical Thinking Activities, p. 26

6. Beyond the Classroom Activity The solution for this file activity is **Refreshments6-SF.xlsx**.

7. Standards at Work Activity Students' files will vary but should include names in the following cells: B3:B14, C3:C14, C18, and C19.

NCTM/Math (Number and Operations) Remind students that the names they choose should meaningfully describe the information in the cells or ranges. Ask students to explain why they chose the names in their five examples. Have them share their examples with the class.

NCLB/Language Arts (NCTE 5) Students should understand that they need to consider the user as they create spreadsheets. Part of this consideration should include making certain that the spreadsheet makes sense and is easy to understand.

8. 21st Century Skills Activity The solution for this file activity is **Merchandise8-SF**. Students should identify the 13 duplicate values in cell F3. Students' answers in F4 will vary, but should include descriptions of how to use at least two other Excel tools to correct or prevent errors in data.

LESSON 1 Challenge Yourself Projects, p. 27

9 Organize a Donations Workbook

LEVEL This is an intermediate level project.

Solution The solution file for Project 9 is **Zoo9-SF.xlsx**.

10 Monitor Donation Totals

LEVEL This is an intermediate level project.

Solution The solution file for Project 10 is **Zoo10-SF.xlsx**.

11 Analyze Donations Data

LEVEL This is an advanced level project.

Solution The solution file for Project 11 is **Zoo11-SF.xlsx**.

NCTM/Math (Number and Operations) Have students explore using different criteria to understand how data validation can be used to control the type of data that is entered into cells. For example, ask students to imagine that they have a spreadsheet with more than a thousand contributions. Students would choose to circle invalid data so that it is easier to make sure the whole spreadsheet is accurate.

Answers Rubrics for each **Challenge Yourself Project** and the **Before You Begin** questions are available at **glencoe.com**. You may want to download the rubrics and make them available to students as they complete each project.

LESSON 2 Advanced Data Analysis, Lesson Opener, p. 28

➔ **21st Century Skills** Answers will vary. Students should describe a recent situation in which they had to make a difficult decision.

LESSON 2 Reading Guide, p. 29

➔ See page **TM42** of the Teacher Annotated Edition for English Learner activity suggestions.

EXERCISE 2-1 Create PivotTable with PivotChart Reports, p. 30

NCLB/Math (Number and Operations) Reinforce the representation of data as a chart, graph, or diagram as an effective tool to visually convey information by having students go online to find examples to share with the class.

Teaching Tip Explain to students that if they drag a field to the wrong location in a PivotTable, they can just drag the field to a blank area of the worksheet. This will remove the field so they can try again. Also, remind students to be sure not to accidentally drag **Concert Date** into the PivotTable merely because it is the first item in the **PivotTable Field List**. Tell students to click the **Undo** button if they make a mistake.

EXERCISE 2-1 Create PivotTable with PivotChart Reports (Continued), p. 31

Step-By-Step Tip In Step 9, point out that the **Sales** field changes to **Sum of Sales** when it is dropped in the **Values** box.

Differentiated Instruction/Advanced Students Encourage advanced students to click **Change Chart Type** in the **Type** group (on the **Design** tab) and select a different type of column or bar chart.

EXERCISE 2-2 Modify Text Formatting Using Formulas, p. 32

Teaching Tip Explain to students that formatting and modifying text using a formula is most helpful when working with a long list of repeated items, such as a large spreadsheet of orders being filled, a hospital's list of patients grouped by insurance company, or a spreadsheet containing book titles that includes repeated publisher contact information.

Step By-Step Tip In Step 5, explain to students that **PROPER** capitalizes the first letter in a text string and any other letters in text that follow any character other than a letter. All other letters are converted to lowercase.

EXERCISE 2-3 Modify Text Content Using Formulas, p. 33

Step-By-Step Tip In Step 1, remind students how to show hidden sheet tabs.

Step-By-Step Tip In Step 3, explain to students that the formula they keyed removed the *ADV*- because they did not enter text between the two apostrophes.

Differentiated Instruction/Advanced Students Encourage advanced students to create and use a formula in column **E** that substitutes **PRINT** for the promotion codes that contain **PUB**. Ask them to explain what they did differently.

EXERCISE 2-4 Use the What-If Analysis Tool to Create Scenarios (Continued), p. 35

Teaching Tip Ask students for examples of other scenarios that they could have added to the list.

EXERCISE 2-4 Use the What-If Analysis Tool to Create Scenarios (Continued), p. 36

NCLB/Math (Number and Operations) Have students write out the numbers in the formula for cells B15 and C6 for both scenarios.

Teaching Tip Point out to students that they can switch between scenarios without closing the **Scenario Manager** dialog box.

EXERCISE 2-5 Use the Solver Add-In, p. 37

Intervention Strategy If **Solver** already appears on their **Add-Ins** tab, students can skip Step 1 and start with Step 2.

NCLB/Math (Number and Operations) Have students run the **Solver** using different percentages. Ask students to translate the percentages into the proper decimal format. Show students what happens when a percentage that is greater than 100% is used.

EXERCISE 2-5 Use the Solver Add-in (Continued), p. 38

NCLB/Language Arts (NCTE 3) Student answers to the Academic Skills minifeature will vary. Students should demonstrate an understanding of advertising methods and target audiences.

Teaching Tip Remind students that they can use the name **total** here to reference cell B14 because they named the cell in an earlier exercise.

EXERCISE 2-6 Use SUMIF and SUMIFS in a Formula, p. 39

Step-By-Step Tip In Step 7, point out to students that the only advertising method that meets both criteria in the **SUMIFS** function is bumper stickers.

English Learners If English Language Learners have trouble following the steps, pair them with native English speakers.

EXERCISE 2-8 Use AVERAGEIF and AVERAGEIFS in a Formula, p. 41

NCTM/Math (Number and Operations) Reinforce the importance of database functions by asking students to explain the difference between a **COUNTIF** and an **AVERAGEIF** function. Ask them to come up with examples of the two to share with the class.

Step-By-Step Tip In Step 8, point out to students that the only advertising method that met both criteria in the **AVERAGEIFS** function is posters.

EXERCISE 2-9 Use Conditional Logic in a Formula, p. 42

NCLB/Math (Connections) Reinforce using conditional logic by asking students to come up with examples of conditional logic that they use daily to make a decision. For example, 1) **IF** I study for a test now, **THEN** I will not have to study later. 2) **IF** I spend all my allowance on CDs, **THEN** I will not have enough money to go to a movie. 3) **IF** I stay up too late watching TV, **THEN** I will not wake up early. 4) **IF** I our team wins the game, **THEN** I will be happy.

Step-By-Step Tip In Step 4, explain to students that the formula returned a **FALSE** result because 50 plus 100 equals 150.

Step-By-Step Tip In Step 7, point out to students that Excel returned an **ERROR** result because the formula attempted to divide by **C2**, which is a blank cell.

Teaching Tip Ask students for examples of other formulas that they could have added to the list.

EXERCISE 2-10 Display and Print Formulas, p. 43

Step-By-Step Tip In Step 1, make sure students key **CTRL + `** (grave accent) and **NOT** the **CTRL + ´** (apostrophe) .

Step-By-Step Tip In Step 8, ask students to key data into the cells that contain the formula results. An error message appears that says the cells are protected and therefore read-only.

Differentiated Instruction/Advanced Students Ask advanced students to go back and add a password in the **Protect Worksheet** dialog box.

Troubleshooting Explain to students that when they prevent a formula from displaying in the **Formula Bar**, they also prevent the cells that contain the formula from being edited.

EXERCISE 2-11 Use Lookup and Reference Functions, p. 44

Step-By-Step Tip In Step 9, point out to students that they looked up values vertically by using an approximate match. Ask them to go back to the **Cost of T-shirts** tab to see that the quantity listed in A4 is 50, or the next largest value to 55.

Inclusion Strategy Some students may find it easier to use the **Insert Function** button to create the formula.

EXERCISE 2-11 Use Lookup and Reference Functions (Continued), p. 45

Step-By-Step Tip In Step 18, point out to students that Excel looks up Quantity, in row 1, and returns a value from row 4 (50) that is in the same column. Explain to students that if row 1 had contained an actual number instead of the word *quantity*, and the formula also contained a number, Excel would have looked for an approximate match or the next largest value that is less than that figure.

Solution Use the file **Blues2-SF.xlsx** as a solution file for **Exercise 2-1** through **Exercise 2-12**.

Writing MATTERS Feature, Writing an Itinerary, p.46

➡SkillBuilder Answers

- 1.** Answers may vary, but students should list at least four itinerary items, such as dates, times, transportation details, hotels, and meetings.
- 2.** Answers may vary, but students should recognize that itineraries help you know where you should be and when during a trip or tour.
- 3.** Answers will vary. Students may identify intineraries for tours of sports sites, gardens, or castles; visits to entertainmnet centers, etc.
- 4.** Students' intineraries should be formatted as described in the feature and include at least three places for Mr. Clark's class to visit, meals, and an evening activity.

NCLB/Language Arts (NCTE 3) Be sure students understand that itineraries are meant to be functional documents. The purpose is to convey specific information about travel plans to travelers and other interested parties. As such, it should be clear, concise, and free of unnecessary information.

LESSON 2 After You Read, p.47

Answers to Review Vocabulary

1. The [**UPPER**] function will change the case of text in a cell or range of cells to capital letters. (p. 32)
2. When you use the Solver, you can set a(n) [**constraint**], or limit. (p. 37)
3. To test whether conditions are true or false and make logical comparisons between outcomes, use [**conditional logic**]. (p. 42)
4. To test out a possible situation, use the [**What-If Analysis**] tool. (p. 34)
5. A(n) [**database**] is a formula that acts only on cells that meet certain criteria. (p. 32)
database function

Answer to Vocabulary Activity Students makes flash cards for each of the vocabulary words in this lesson. Students use the flash cards to review the vocabulary words and their definitions.

Answers to Review Key Concepts

7. Which of the following displays and hides the formulas on a worksheet? (p. 43)
 - A. CTRL + ‘
 - [B. CTRL + `]**
 - C. ALT + ~
 - D. ALT + `
8. What is the second argument of the LOOKUP function? (p. 44)
 - [A. the LOOKUP table]**
 - B. the value in the worksheet you are looking for
 - C. the row or column in the LOOKUP table that contains the value
 - D. the database
9. How do you perform a What-If Analysis? (p. 34)
 - A. create a PivotChart
 - B. group and outline data
 - C. trace errors
 - [D. compare scenarios]**
10. What does the SUMIFS function do? (p. 39)
 - A. returns the average of all the cells in a range that meet a given criteria
 - B. adds all numbers in a range of cells, based on a given criteria
 - [C. add values in a range based on multiple conditions]**
 - D. averages cells that meet multiple criteria

LESSON 2 Practice It Activities

1. Create a PivotTable and a PivotChart, p. 48

Solution The solution for this file activity is **Jobs-PivotChart1-SF.xlsx**.

2. Use a Name and a SUMIF in a Formula, p. 49

Solution The solution for this file activity is **Budget-Names2-SF.xlsx**.

3. Create Scenarios, p. 50

New Student Strategy If a student did not complete Practice Activity 2, then the solution file for that activity can be used as a data file for this activity.

Solution The solution for this file activity is **Budget-Scenario3-SF.xlsx**.

LESSON 2 YOU TRY IT ACTIVITIES

4. Perform a What-If Analysis, p. 51

New Student Strategy If a student did not complete Practice Activity 3, then the solution file for that activity can be used as a data file for this activity.

Solution The solution file for this activity is **Budget-Scenario4-SF.xlsx**.

5. Use AVERAGEIF and COUNTIF in a Formula, p. 52

Solution The solution for this file activity is **Tournament5-SF.xlsx**.

LESSON 2 Critical Thinking Activities, p. 53

6. Beyond the Classroom Activity Students' **Tournament-6** files will vary but should include a PivotTable and PivotChart summarizing the fundraising data for the tournament, a chart title, and no legend.

7. Standards at Work Students' **Tournament-7** files will vary but should include names for each column of fundraising data, and use a name in the formulas in the following cells: D4, D29, E4 .

8. 21st Century Skills Activity The solution for this file activity is **Bookstore8-SF.xlsx**.

Teaching Tip In the 21st Century Skills Activity, remind students to save the original 2 percent as a separate What-If scenario so that they do not lose the information.

LESSON 1 Challenge Yourself Projects, p. 54

9. Monitor Price Changes

LEVEL This is an intermediate level project.

Solution The solution file for Project 9 is **Bookstore9-SF.xlsx**.

10. Analyze Scenarios

LEVEL This is an intermediate level project.

Solution The solution file for Project 10 is **Bookstore10-SF.xlsx**.

11. Analyze Price Increase

LEVEL This is an advanced level project.

The solution file for Project 11 is **Bookstore11-SF.xlsx**.

Answers Rubrics for each **Challenge Yourself Project** and the **Before You Begin** questions are available at **glencoe.com**. You may want to download the rubrics and make them available to students as they complete each project.

LESSON 3 Advanced Data Formatting, Lesson Opener, p.55

➔ **21st Century Skills** Answers will vary. Students should identify a task in their schoolwork that would best be completed using Excel.

LESSON 3 Reading Guide, p. 56

➔ See page **TM42** of the Teacher Annotated Edition for English Learner activity suggestions.

EXERCISE 3-1 Create a Custom Number Format, p. 57

Intervention Strategy Check that students know where to locate and save their data files.

Teaching Tip Tell students that a license plate number such as DJC 987 could be formatted using a custom format. Ask the students for other examples.

EXERCISE 3-3 Use Conditional Formatting, p. 59

Step-By-Step Tip In Step 2, point out to students that there is a difference between *greater than* and *greater than or equal to*.

Step-By-Step Tip In Step 8, point out to students that the top 10 sales goals for 2010 are highlighted in green.

Differentiated Instruction/Visually Impaired If students cannot see bright yellow, have them choose light grey.

EXERCISE 3-3 Use Conditional Formatting (Continued), p. 60

Teaching Tip Point out to students that a longer data bar represents a higher value.

Step-By-Step Tip In Step 14, point out to students that the data is displayed with a two or three color gradient with the shade of the color representing the value in the cell.

EXERCISE 3-4:- Use the Conditional Formatting Rules Manager, p.61

Teaching Tip Explain to students that by default, new rules are added to the top of the list in the **Conditional Formatting Rules Manager** dialog box and therefore have a higher precedence. Tell students that they can use the **Move Up** and **Move Down** arrows in the dialog box to change the order of precedence.

NCLB/Math (Number and Operations) Reinforce the representation of the concept of *precedence* by reviewing the order of operations in a mathematical operation with students. Point out to students, for example, that in an equation such as $3 + 4 \times 5 = 5 \times 4$

+ 3 = 23, multiplication has precedence over addition. Have students go online to find other examples of precedence to share with the class.

Troubleshooting It may be helpful to tell students that manual formatting is not listed in the **Conditional Formatting Rules Manager** dialog box or used to determine precedence.

EXERCISE 3-5 Insert and Modify a Graphic, p. 63

Teaching Tip Explain to students that they can use the thumbnails in the drop-down menus to see how a formatting change will look before it is actually made to the picture.

EXERCISE 3-5 Insert and Modify a Graphic (Continued), p. 64

New Student Strategy If you have new students in class, this would be a good time to review creating drawing objects.

NCLB/Language Arts (NCTE 3) Review the difference between *contrast* and *brightness* with students. Ask students to explain why they think changing the contrast of a graphic is more helpful than changing its brightness. Tell students that increasing the contrast makes light areas lighter and dark areas darker. Increasing the contrast can make it easier to see details in a graphic.

EXERCISE 3-6 Scale a Graphic, p. 65

Intervention Strategy It may be helpful to review percents with the class before this exercise. For example, review what it means to change the scale to 150 percent.

EXERCISE 3-7 Rotate a Graphic, p. 66

Teaching Tip Explain to student that the **Align** button allows them to align the edges of multiple selected objects, or center, or distribute them evenly across a page.

EXERCISE 3-8 Apply Formats to Charts and Diagrams, p. 67

Step-By-Step Tip In Step 5, after students click **Close**, point out that tick marks are added to the y axis every 1,000 units and that the numbers no longer have decimal places.

EXERCISE 3-8 Apply Formats to Charts and Diagrams (Continued), p. 68

Differentiated Instruction/Advanced Students If advanced students finish early, have them format other parts of the chart.

EXERCISE 3-9 Apply Themes to Worksheets, p. 69

Teaching Tip Explain to students that under **Sample**, they can see the effect of the changes that they make.

Troubleshooting Point out to students that a **ScreenTip** tells them what theme is applied to their workbook.

EXERCISE 3-9 Apply Themes to Worksheets (Continued), p. 70

Solution Use the file **Toys-SF.xlsx** as a solution file for Exercises 3-1 through 3-9.

Writing MATTERS Feature, How to Read a Technical Document, p. 71

➡SkillBuilder Answers

- 1.** Answers will vary. Technical documents may include diagrams, headings, step-by-step instructions, and numbered or bulleted lists.
- 2.** Answers will vary. Students may say that one set of instructions was easier to understand than the other because it was better organized, had more detail, used clearer diagrams, etc.
- 3.** Answers will vary. Students may identify the following possible improvements: Have photographs instead of drawings to make the steps clearer, include more explanations of technical terms, number the steps, etc.

LESSON 3 After You Read, p. 72

Answers to Review Vocabulary

1. Applying conditional formatting can help you see a **[trend]** in the numbers on a spreadsheet. (p. 59)
2. **[Scale]** a graphic to change the size to a certain percent of its original size. (p. 65)
3. **[Conditional formatting]** applies only to cells that meet certain conditions. (p. 59)
4. The difference between lighter and darker areas of a graphic is called the **[contrast]**. (p. 63)
5. To turn a graphic clockwise, **[rotate]** it. (p. 66)

Answer to Key Term Activity Students use a graphic in a workbook to review the meaning of five vocabulary words in the lesson. Students manipulate the graphic to reflect the meaning of the vocabulary word written on a piece of paper. If students cannot remember what their term means, they review the term and then manipulate the graphic accordingly.

Answers to Review Key Concepts

7. Which custom format would display a value of 7987 as 7,987? (p. 58)
A. 0,000 [C. #,###]
B. *,*** D. @,@@@
8. The Brightness button is found in which Picture Tools group? (p. 63)
A. Arrange [C. Adjust]
B. Picture Styles D. Styles
9. What part of a chart give information about what the different colors and patterns represent ? (p. 67)
A. brightness C. contrast
[B. legend] D. color scale
10. How can you format most parts of a chart? (p. 67)
A. Choose **Format>Chart**.
B. Choose **Format>Legend**
C. Click the part of the chart that you want to change.
[D. Double-click the part of the chart that you want to change.]

LESSON 3 Practice It Activities

1. Create a Custom Number Format, p. 73

Solution The solution file for this activity is **Soccer1-SF.xlsx**.

2. Use Conditional Formatting, p. 74

New Student Strategy If a student did not complete Practice Activity 1, then the solution file for that activity can be used as a data file for this activity.

Solution The solution file for this activity is **Soccer2-SF.xlsx**.

3. Resize and Scale Graphics, p. 75

New Student Strategy If a student did not complete Practice Activity 2, then the solution file for that activity can be used as a data file for this activity.

Solution The solution file for this activity is **Soccer3-SF.xlsx**.

LESSON 3 You Try It Activities

4. Format a Chart, p. 76

Solution The solution file for this activity is **Party4-SF.xlsx**.

5. Customize a Graphic, p. 77

Solution The solution file for this activity is **Drama5-SF.xlsx**.

LESSON 3 Critical Thinking Activities, p. 78

6. Beyond the Classroom Activity Answers will vary but may include highlighting the following information: videos that were rented over a week ago, customers who owe more than \$30, or DVDs that cost more than \$25.

7. Standards at Work Activity The solution file for this activity is **Contacts7-SF.xlsx**.

8. 21st Century Skills Activity The solution for this file activity is **Quizzes8-SF.xlsx**.

LESSON 3 Challenge Yourself Projects, p. 79

9 Identify Accounts

LEVEL This is an intermediate level project.

Solution The solution file for Project 9 is **Due9-SF.xlsx**.

10 Format Customer Numbers

LEVEL This is an intermediate level project.

Solution The solution file for Project 10 is **Due10-SF.xlsx**.

11 Customize a Column Chart

LEVEL This is an advanced level project.

Solution The solution file for Project 11 is **Due11-SF.xlsx**.

NCLB/Math (Algebra) Reinforce the representation of data as a chart, graph, or diagram as an effective tool to visually convey information by having students go online to find examples to share with the class.

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LESSON 4 Advanced Collaboration, Lesson Opener, p. 80

➔ **21st Century Skills** Answers will vary. Students should identify a method they use to track their progress toward a particular goal. If students do not track their progress toward this goal, encourage them to think of a way to do so.

LESSON 4 Reading Guide, p. 81

➔ See page **TM42** of the Teacher Annotated Edition for English Learner activity suggestions.

EXERCISE 4-2 Set a Password to Open a Workbook, p. 84

Step-By-Step Tip In Step 4, make sure students check to make sure that **Caps Lock** is not on when they key the password. Tell students to be very careful to key the password correctly.

EL Make sure English Learners understand the meaning of *case sensitive*. A password such as **Purple4U** is case sensitive. The capital **P** and the capital **U** must be keyed in order for the password to work.

Teaching Tip Microsoft Office allows you to protect your documents from unwanted access with a tool called Information Rights Management (IRM). IRM prevents unauthorized access, printing, or copying of sensitive information. While other permissions tools prevent or restrict access from within a network, IRM protects documents wherever they are by storing the permissions information inside the file. The Windows Rights Management Services (RMS) software is built in to Windows Vista. You must install RMS Client Service Pack 1 if you are using Windows XP.

EXERCISE 4-3 Set a Password to Modify a Workbook, p. 85

Step-By-Step Tip In Step 3, have students check to make sure **Caps Lock** is not on.

Teaching Tip Give students suggestions about how to manage their passwords. Tell them to create a password that is easy for them to remember, but difficult for other people to guess.

EXERCISE 4-4 Create a Shared Workbook, p. 86

Different Strokes Tell students that the keyboard shortcut for **Save As** is **F12**.

Troubleshooting Let students know that, typically, users share files on a network. Explain to students that they will open two copies on their computer to simulate this situation.

EXERCISE 4-5 Use Track Changes, p. 87

Differentiated Instruction/Visually Impaired If some students have trouble reading the worksheet, have them increase the zoom.

EXERCISE 4-7 Copy a Worksheet, p. 90

Step-By-Step Tip In Step 1, make sure students go back to the **Museum** file. They should *not* be working in the **Museum-copy** file.

EXERCISE 4-8 Add and Modify Headers and Footers, p. 92

Teaching Tip Explain to students that they can close headers and footers by clicking anywhere in their worksheet. Tell them that they can close headers and footers without keeping any of the changes that they made, by pressing **ESC**.

Step-By-Step Tip In Step 8, tell students that they can also click the **Normal** button on the status bar to return to **Normal** view.

EXERCISE 4-9 Merge Workbooks, p. 93

Intervention Strategy Make sure students understand why, in Figure 4.24, cell **F18** is marked as changed, even though this change was later rejected.

EXERCISE 4-10 Mark a Document as Final, p. 94

Step-By-Step Tip In Step 5, make sure students understand that the **Mark as Final** command is not a security feature. If a user receives a file that is marked as final, they can remove the **Mark as Final** status.

EXERCISE 4-11 Use Digital Signatures to Authenticate Workbooks, p. 95

Solution Use the files **Museum-SF.xlsx**, **Museum-copy-SF.xlsx**, and **Original-data-SF.xlsx** as solution files for Exercises 4-1 through 4-11. The password to open the files is *mystery7*.

MATH MATTERS Feature, Applying for a Business Loan, p. 96

➡SkillBuilder Answers

1. A business loan is a loan from a bank that enables someone to start or improve a business.
2. Banks want to see if potential borrowers have failed to repay loans in the past.
3. Allen will owe \$6,000 in interest.

NCLB/Math (Number and Operations) Make sure students understand how to figure out percentages. Percentages are expressed mathematically as decimals to the hundredths place. For example $8\% = .08$, while $80\% = .80$.

LESSON 4 After Your Read, p. 97

Answers to Review Vocabulary

1. **[Protect]** a worksheet if you do not want people to be able to change it. (p. 82)
2. To show that a workbook comes from a trusted source, you can attach a(n) **[digital signature]**. (p. 95)
3. To allow several people to open and edit a workbook at the same time, **[share]** the workbook. (p. 86)
4. If a file should only be opened by certain users, create a(n) **[password]**. (p. 84)
5. When you use Track Changes, you can accept or **[reject]** changes made by other users in a shared workbook. (p. 88)

Answer to Key Term Activity Protecting worksheets and workbooks help keep users from inserting, deleting, or changing data. Setting passwords helps prevent unauthorized people from opening the file. Adding a digital signature lets people know that the file is from a trusted source. If someone is deliberately trying to harm a file, these protections might not be effective.

Answers to Review Key Concepts

Answer the following questions on a separate piece of paper.

7. Which elements can you protect? (pp. 82-83)
A. A range of cells
B. A worksheet
C. A workbook
[D. All of the above]
8. How could you prevent certain users from opening a confidential workbook? (p. 84)
A. Add a digital signature.
B. Protect the worksheet.
[C. Set a password to open.]
D. Enable Track Changes.
9. What would you do to certify yourself as the sender of a file? (p. 95)
[A. Add a digital signature.]
B. Protect the worksheet.
C. Set a password to open.
D. Enable Track Changes.
10. How can you prevent certain users from modifying a file? (p. 85)
A. Create a digital signature.
[B. Set a password to modify.]
C. Enable worksheet protection.
D. Enable workbook protection.

LESSON 4 Practice It Activities

1. Share a Workbook and Track Changes, p. 98

Solution The solution file for this activity is **Clubs1-SF.xlsx**

2. Accept and Reject Changes, p. 99

New Student Strategy If a student did not complete Practice It Activity 1, then the solution file for that activity can be used as a data file for this activity.

Solution The solution file for this activity is **Clubs2-SF.xlsx**

3. Merge Workbooks, p. 100

New Student Strategy If a student did not complete Practice It Activity 2, then the solution file for that activity can be used as a data file for this activity.

Solution The solution files for this activity are **Clubs3-SF.xlsx** and **Clubs3-copy-SF.xlsx**.

LESSON 4 You Try It Activities

4. Protect Formulas, p. 101

Teaching Tip Ask students to explain in their own words why they can change some cells and not others.

Solution The solution file for this activity is **May4-SF.xlsx**.

5. Add a Digital Signature and Set a Password to Open a Workbook, p. 102

Teaching Tip If new students did not create a digital signature earlier in the lesson, refer them back to Exercise 4-11.

Solution The solution file for this activity is **May5-SF.xlsx**.

LESSON 4 Critical Thinking Activities, p. 103

6. Beyond the Classroom Activity Student final files will vary, but should include two new rows of data that were added with Track Changes on.

NCLB/Language Arts (NCTE 3) Reinforce the importance of tracking all changes in a document by asking students to come up with examples of what would happen if changes were not tracked. Have them share their answers with the class. Ask them why they think it would be necessary to share a workbook and protect it with a password at the same time. Explain to students that this would prevent others from turning Track Changes off.

7. Standards at Work Activity Student files will vary, but their worksheets should be protected. The first appointment should be changed to **8:20**.

8. 21st Century Skills Activity Students' files should require a password to open the files.

LESSON 4 Challenge Yourself Projects, p. 104

9. Protect an Expenses Worksheet

LEVEL This is an intermediate level project.

Solution The solution file for Project 9 is **Baseball9-SF.xlsx**.

10. Work Collaboratively

LEVEL This is an advanced level project.

NCLB/Language Arts (NCTE 5) Reinforce the difference between comparing and merging workbooks and consolidating data stored on different worksheets by having students share their answers with the class.

Solution The solution file for Project 10 is **Baseball10-SF.xlsx**.

11. Choose Which Changes to Keep

LEVEL This is an advanced level project.

Solution The solution file for Project 11 is **Baseball11-SF.xlsx**.

Answers Rubrics for each **Challenge Yourself Project** and **Before You Begin** questions are available at **glencoe.com**. You may want to download the rubrics and make them available to students as they complete each project.

LESSON 5 Advanced Data Management, Lesson Opener, p. 105

➔ **21st Century Skills** Answers will vary. Students should say how well they adapt to new situations. Encourage students to consider how they could be more adaptable.

LESSON 5 Reading Guide, p. 106

➔ See page **TM42** of the Teacher Annotated Edition for English Learner activity suggestions.

EXERCISE 5-1: Import Data to Excel, p. 107

Intervention Strategy Check that students know where to locate and save their data files.

EXERCISE 5-2 Link to Web Page Data, p. 108

Troubleshooting Students must have Internet access to complete this exercise.

Teaching Tip Have students AutoFit column A, if necessary.

EXERCISE 5-3 Use the Document Inspector, p. 109

Step-By-Step Tip In Step 2, explain to students that it is a good idea to use the Document Inspector on a copy of their original document because they might not be able to restore the data once the Document Inspector removes it from the file.

Solution The solution file for this exercise is **Deals-copy-SF.xlsx**.

EXERCISE 5-4 Add Information to Workbook Properties, p. 110

Differentiated Instruction/Advanced Students Have students Choose **Office>Open** and then point to their **Deals** file. Explain to students that a ScreenTip appears showing the new properties.

EXERCISE 5-5 Create and Edit a Workbook Template, p. 111

Teaching Tip Explain to students that a template is similar to a job application. You are given a blank form that you fill in with your specific information.

EXERCISE 5-5 Create and Edit a Workbook Template (Continued), p. 112

Teaching Tip Explain to students that if they want to add something to a template, they can edit it. Tell students that the changes that they make to a template will affect all new workbooks created from the template.

Solution Use the files **Homes-SF.xlsx** and **Bluehills-SF.xlsx** as solution files for Exercises 5-1 through 5-5.

EXERCISE 5-6 Save Workbooks As Previous Versions, p. 113

Solution Use the files **Bluehills-SF.xls** and **Downtown-SF.xls** as solution files for Exercise 5-6.

EXERCISE 5-7 Save a Workbook As a PDF, p. 114

Troubleshooting To save or export a file to PDF or XPS, students will have to download and install the **Save as PDF or XPS add-in** for the 2007 Microsoft Office system. Go to the **Microsoft Download Center** online and follow instructions on how to download and install the add-in.

Solution Use the file **Downtown.pdf** as the solution file for this exercise.

EXERCISE 5-8 Save a Workbook As Macro-Enabled, p. 115

Teaching Tip Ask students to identify a common task that requires a sequence of actions, such as tying their shoes. Ask them what it would be like if they could snap their fingers to complete this task. Explain that this is what a macro does, but for Excel tasks.

EXERCISE 5-10: Run a Macro, p. 118

Solution Use the file **Downtown-SF.xlsm** as a solution file for Exercises 5-8 through 5-10.

EXERCISE 5-11 Consolidate Data from Two or More Worksheets, p. 119

Solution Use the file **Paper-SF** as a solution file for Exercise 5-11.

MATH MATTERS Feature, Payroll Sheet, p. 120

➤SkillBuilder Answers

1. Net pay is the total amount earned (gross pay) minus taxes, Social Security, Medicare, and any other deductions.
2. Answers will vary. Students may say that businesses need to know payroll expenses in order to budget their resources appropriately and keep track of taxes.
3. Sandy's net pay is \$132.37. ($17 \times \$9.50 - \$29.13 = \132.37)

NCLB/Math Make sure students understand how to figure out percentages. Percentages are expressed mathematically as decimals to the hundredths place. For example $8\% = .08$, while $80\% = .80$.

LESSON 5 Practice It Activities

1. Import Data in Excel, p. 122

Solution The solution file for this activity is **Trip1-SF.xlsx**.

2. Modify Workbook Properties and Save As a Previous Version, p. 123

New Student Strategy If a student did not complete Practice Activity 2, then the solution file for that activity can be used as a data file for this activity.

Solution The solution file for this activity is **Trip2-SF.xlsx**.

3. Create and Modify a Template, p. 124

Solution The solution files for this activity are **Month3-SF.xltx** and **April3-SF.xlsx**.

LESSON 5 You Try It Activities

4. Consolidate Data, p. 125

Solution The solution file for this activity is **Downtown4-SF.xlsx**.

5 Save a Workbook as a PDF, p. 126

New Student Strategy If a student did not complete You Try It Activity 4, then the solution file for that activity can be used as a data file for this activity.

Solution The solution file for this activity is **Downtown5-SF.pdf**.

LESSON 5 Critical Thinking Activities, p. 127

6. Beyond the Classroom Activity Students' files should include the current stock quotes imported from the MSN Web page.

NCLB/Language Arts (NCTE 7) Remind students to cite all their sources. Students should avoid plagiarism when they use research in their own work.

7. Standards at Work Activity Students' files should include the following file properties: subject, author, comments, and key words.

NCLB/Language Arts (NCTE 5) Reinforce to students that the text they key into the document properties can be viewed by other users with access to the files. Comments should consist of brief, precisely worded language that employs parallel grammatical structure.

8. 21st Century Skills Activity Students' files should be based on their **Quiz** template. Files should include quiz scores and averages.

LESSON 4 Challenge Yourself Projects, p. 128

9 Set Up Your Supplies

LEVEL This is an intermediate level project.

Solution The solution files for Project 9 are **Carwash9-SF.xlsx** and **adv-e5rev9-SF.xlsx**. Students' files will vary but should look similar to **adv-e5rev9-SF.xlsx**.

10 Monitor Sales

LEVEL This is an advanced level project.

Solution The solution file for Project 10 is **adv-e5rev10-SF.xlsx**.

11 Find Total Sales

LEVEL This is an advanced level project.

Solution The solution file for Project 11 is **Summer11-SF.xlsx**.

NCTM (Number and Operations) Reinforce the representation of numbers in formulas by having students create a workbook that consolidates the number of donations received by the school's computer lab. Thanks to a donation from a local bank, the school has received a donation of 62 new desktop computers, 13 laptop computers, 7 printers, and 40 flash memory drives. Ask students to create a workbook that has a separate sheet for each type of donation. Each sheet should include a column for the name of the donor. Then, ask them to create a summary sheet to total the number of donations.

Answers Rubrics for each **Challenge Yourself Project** and the **Before You Begin** questions are available at www.glencoe.com. You may want to download the rubrics and make them available to students as they complete each project.