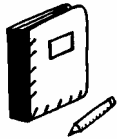# Lesson 6

Description

After composing an e-mail message to inform their boss that the investigation is nearing completion, the students decode a top-secret database that confirms their suspicions about the shortcomings of Camp Fitness. The class uses a desktop publishing program to create a newspaper article based on these findings.
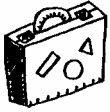
Materials

Software
❑ Web browser
❑ *Microsoft Access 2003*
❑ *Microsoft Publisher 2003*
Handouts
❑ [None]
Templates
❑ EVIDENCE.MDB*
❑ CAMP.MDB†
❑ FRONTPAG.PUB
Other
❑ Teacher-generated samples

*This is the database created by the students in Lesson 2.
†This is the same database template used in Lesson 1.

Preparation

Mission Accomplished!

❑ On the board, write the fictitious e-mail address that was used in Lesson 3 to send a message to the boss at the newspaper office. In addition, write a few questions to help the students compose their e-mail messages.

❑ Toward the end of the lesson, write some questions on the board to help the pupils write their newspaper articles. For example, what does the table at the bottom of the page suggest? What did the students discover about the exercise and nutrition programs? Why do some campers have lower fitness scores at the end of their stay? What can be done about the problem?

❑ Although there are no instructions for completing the FRONTPAG.PUB template, advanced students could apply the skills they learned during *Premiere Issue* to create more complex pages. For example, they may add a colorful pattern to selected text frames, change the shadow color of the WordArt text, adjust the line spacing of the article, or create borders and shadows around multiple frames in the document.

❑ If time is limited, do not eliminate any of the database objectives. Instead, simplify the desktop publishing skills required to complete the front page of the newspaper. Although this is a good opportunity to review *Microsoft Publisher 2003*, no new learning objectives are introduced. Entering plain text instead of using WordArt to add the name of the newspaper at the top of the page will save time. Although the students will have to modify the textual content of the page, most of the formatting can also be omitted. The steps of adding a border and shadow around the text frame and creating a page border may also be eliminated.

Opening

Review Lesson 5, including using a search engine, inserting and repositioning fields in a database table; deleting and inserting records, and performing advanced filters.

❑ Review Lesson 5

Inform the children that today they will send a second e-mail message to their boss informing him that the investigation of Camp Fitness is almost complete. The students will apply their skills to decode a top-secret database that confirms their suspicions about the camp. After reaching a conclusion, the children will use a desktop publishing program to complete the newspaper article.

❑ Preview the lesson

Mission Accomplished!

Ask the students to recall the last time they contacted their boss at the newspaper office. They should contact him again today to inform him that the investigation of Camp Fitness is nearing completion. How did the pupils contact the boss in Lesson 3? Confirm that they sent e-mail messages.

❑ Review sending an *e-mail message*

Direct the pupils to launch the e-mail program and open a new message. Refer to the boss's e-mail address on the board and instruct them to enter this text in the appropriate space. Enter a title for the message, such as "Investigation Update" or "Status Report," in the designated space.

❑ Launch the e-mail program
❑ Open a new e-mail message
❑ Enter the recipient's address
❑ Enter the subject

Now the students are ready to compose their e-mail messages. Explain that they should inform the boss of their findings during the fitness camp investigation. For example, did they determine that the exercise and nutrition programs were effective or not? How did they reach their conclusions? What improvements did they make to these programs? Allow the pupils a few minutes to compose their messages, and then have them "sign" their letters by entering their names below the text.

❑ Compose the message

❑ Sign the e-mail message

Before the students send their messages, ask them if they think their boss might want a copy of the information that they organized in their evidence database. How can this be accomplished? Explain that e-mail programs allow users to attach

❑ Discuss how to send copies of files

files to the e-mail message. These files can be created in any kind of application and will be sent along with the e-mail message. The document can then be opened on the recipient's computer.

Show the students how to attach the EVIDENCE.MDB file to their e-mail messages, and point out the icon representing this database file. Explain that the recipient of this e-mail message will be able to view the contents of the attached file simply by double-clicking the icon. Instruct the students to send the message. (**Note:** Cancel or close any error message or dialog box that is displayed as a result of sending e-mail without an active account.) Exit the e-mail application.

❑ Attach EVIDENCE.MDB

❑ Send the e-mail

❑ Exit the e-mail application

E-mail sample
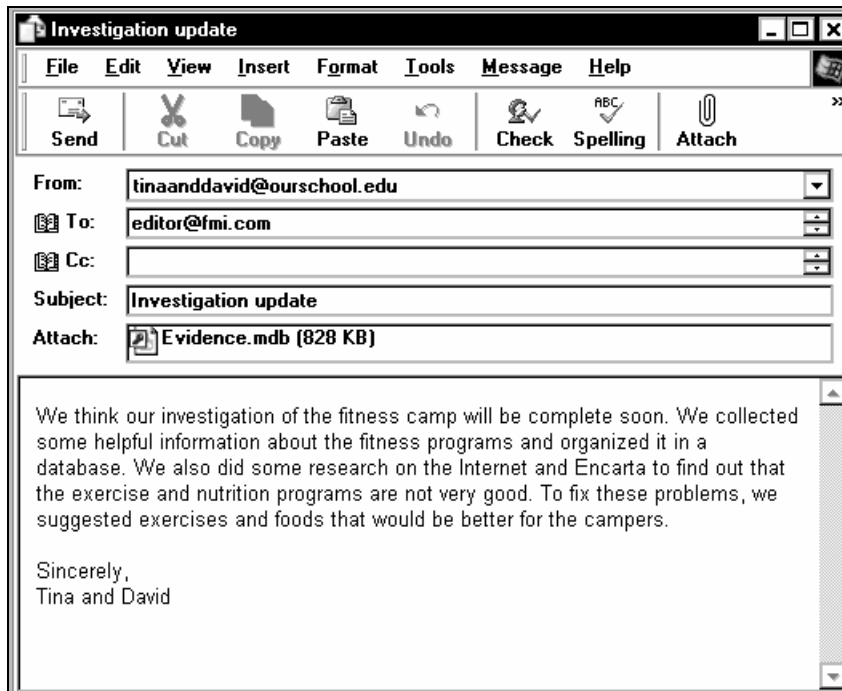
Although the students suspect that the exercise and nutrition programs at Camp Fitness are ineffective, their conclusions would be more convincing with some hard proof. What sort of information would confirm that the camp does not promote good health? Although answers will vary, explain that the best confirmation would demonstrate that the campers are less fit at the end of the camp session than they were at the beginning. Where would this confidential information be located? Remind the pupils that in Lesson 1 they added personal information to a secret database of children attending the camp. Checking this database might be a good place to start.

❑ Discuss finding information to confirm their suspicions

❑ Suggest where to locate the confirmation

Direct the students to launch *Microsoft Access 2003* and open the CAMP.MDB database. Verify that the TABLES icon is selected and double-click RESULTS. What happens? There is nothing to see, since all of the fields in the table are missing! Where is this information located and how can it be recovered? Remind the students that in Lesson 4 they hid the field containing the measurement system that they did not use. Could these fields have been hidden in a similar fashion? To check, choose FORMAT · UNHIDE COLUMNS. The Unhide Columns window lists the seven fields that are hidden. Select the check boxes in front of each field name, then click CLOSE to close the window and display the information in the database table.

❑ Launch *Microsoft Access 2003*

❑ Open CAMP.MDB

❑ Unhide the fields

Results table
(Camp.mdb database)
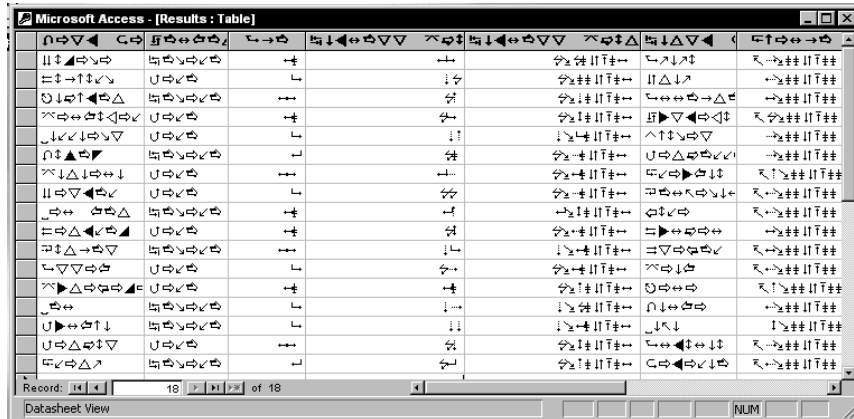
Ask the pupils to describe what they see in the table. Can they understand it? Explain that the information is written in a secret code. Is there an easy way to make sense of this data? Confirm that the text can be decoded by changing the font. Simply highlight the columns and choose FORMAT · FONT. Select ARIAL from the Font menu and the children will be able to read and understand the information.

❑ Change the text font

Decoded Results Table

Last Name	Gender	Age	Fitness Score (Day 1)	Fitness Score (Last Day)	First Name	Change
Koyama	Female	10	81	7.70E+01	Akiko	-4.00E+00
Hogholm	Male	9	67	7.00E+01	Erik	3.00E+00
Richter	Female	11	75	7.60E+01	Annegret	1.00E+00
Sandoval	Male	10	79	7.20E+01	Gustavo	-7.00E+00
Williams	Male	9	65	6.90E+01	Thomas	4.00E+00
Lopez	Female	8	70	7.40E+01	Marcella	4.00E+00
Siriani	Male	11	83	7.80E+01	Claudio	-5.00E+00
Kastel	Male	9	77	7.40E+01	Benjamin	-3.00E+00
Van der Merwe	Female	10	85	8.20E+01	Zola	-3.00E+00
Hartley	Male	10	72	7.30E+01	Duncan	1.00E+00
Borges	Female	11	69	6.80E+01	Isabel	-1.00E+00
Assad	Male	9	74	7.10E+01	Said	-3.00E+00
Surabaya	Male	10	80	7.50E+01	Rana	-5.00E+00
Wen	Female	9	64	6.70E+01	Linda	3.00E+00
Mundhi	Female	9	66	6.80E+01	Viji	2.00E+00
Marcos	Male	11	76	7.20E+01	Antonio	-4.00E+00
Clark	Female	8	78	7.50E+01	Natalie	-3.00E+00

Record: 1 of 17

Ask the children what additional corrections must be made to the database table. Although responses will vary, explain that the First Name field should be positioned between the Last Name and Gender fields and the information in the Fitness Score (Last Day) and Change fields needs to be reformatted so that it makes sense.

❑ Suggest additional corrections

First, direct the students to highlight the First Name field. Hold down the mouse button and drag the column to reposition it in between the Last Name and Gender columns.

❑ Reposition the First Name field

Next, ask the pupils what is wrong with the information in the last two fields. The numbers in those columns do not make sense. How can this problem be fixed? The formatting must be changed. Remind the students that in Lesson 4 they altered the way the information was displayed in the database form by accessing Design View. Have them choose VIEW • DESIGN VIEW to make the necessary changes to the fields in this table.

❑ Access Design View

When the database appears in Design view, tell the students to use the Selector box to highlight the Fitness Score (Last Day) field, and verify that the General tab is chosen. Notice that the information is formatted as a scientific number. To make the data understandable, it must be formatted as a general number. Select the *Scientific* text and choose GENERAL NUMBER from the Format drop-down menu. Repeat this procedure to reformat the information in the Change field the same way. Save the changes, and then choose VIEW • DATASHEET VIEW to see the information in a table again.

❑ Change the number format of the two fields

❑ Save the changes
❑ Return to Datasheet View

Results Table in Design View

Ask the class to discuss the information shown in the Fitness Score (Day 1), Fitness Score (Last Day) and Change fields. Explain that the physical fitness of the campers is evaluated both when they arrive and when they depart from Camp Fitness. If the camp were to be truly effective, the fitness scores on the last day would be higher than the scores on the first day. However, many of the campers' last-day scores are lower! These individuals are less physically fit than they were when they first arrived at the camp. A subtraction sign in front of the number in the Change field designates this.

❑ Discuss the information

To determine which individuals are leaving the camp in a less fit condition than before they arrived, the records must be sorted according to the Change field, with the lowest number listed first. Begin by selecting the Change field name, then choose RECORDS • SORT • SORT ASCENDING. Ask the children to look at the numbers in the field. Discuss whether this information confirms that Camp Fitness does not promote good health.

❑ Sort the records according to the Change field

Results Table sample

Last Name	First Name	Gender	Age	Fitness Score (Day 1)	Fitness Score (Last Day)	Change
Sandoval	Gustavo	Male	10	79	72	-7
Siriani	Claudio	Male	11	83	78	-5
Surabaya	Rana	Male	10	80	75	-5
Marcos	Antonio	Male	11	76	72	-4
Koyama	Akiko	Female	10	81	77	-4
Van der Merwe	Zola	Female	10	85	82	-3
Kastel	Benjamin	Male	9	77	74	-3
Clark	Natalie	Female	8	78	75	-3
Assad	Said	Male	9	74	71	-3
Borges	Isabel	Female	11	69	68	-1
Richter	Annegret	Female	11	75	76	1
Hartley	Duncan	Male	10	72	73	1
Mundhi	Viji	Female	9	66	68	2
Wen	Linda	Female	9	64	67	3
Hogholm	Erik	Male	9	67	70	3
Lopez	Marcella	Female	8	70	74	4
Williams	Thomas	Male	9	65	69	4

Record: 1 of 17

The students now have the confirmation they need and are ready to write their newspaper articles in a desktop publishing program. To make the article more convincing, the database table should be included to support the students' findings. How can this be accomplished? Data from a database can be copied and pasted into a desktop publishing document just as information from a desktop publishing document can be copied and pasted into a database.

❑ Discuss how to insert this table into the article

To copy the information, select the seven field names to highlight the data and choose EDIT · COPY. Without closing the database or exiting *Access*, launch *Microsoft Publisher 2003* and open the FRONTPAG.PUB template. Select the ZOOM drop-down arrow and choose 75%.

❑ Launch *Microsoft Publisher 2003* without exiting *Access*

❑ Open FRONTPAG.PUB

❑ Zoom to 75%

Frontpag.pub template

Display a teacher-generated sample to show how the completed pages should look. Based on the sample, ask the students to suggest what changes they need to make to the template. Although answers may vary, suggest that the name of the newspaper needs to be placed at the top of the page and the database table must be inserted at the bottom. The text about Camp Fitness and their investigation must be entered in the frames in the middle of the page.

❑ Display a teacher-generated sample

❑ Discuss what elements need to be added or fixed

Frontpag.pub sample
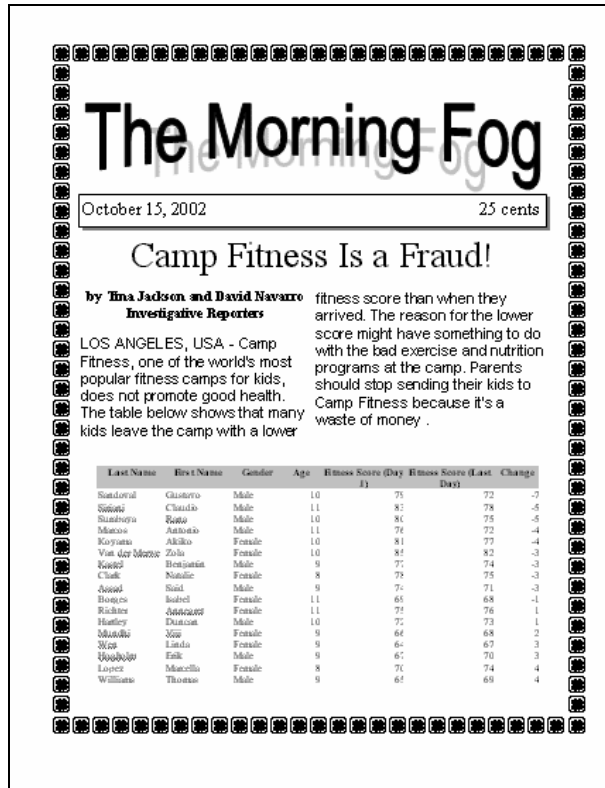
First, the students must insert the database table, which has been stored on the Clipboard. To do so, choose EDIT · PASTE and position the table at the bottom of the page. Use the handles to reduce the size of the table so that it fits inside the margins, which are designated by the blue lines, and below the gray text frames.

❑ Paste the database table

❑ Reposition and resize the table

Next, the name of the newspaper, or the masthead, must be added to the top of the page. Begin by selecting the INSERT WORDART button 🔲. Select the fourth choice in the first row of the WordArt Gallery window and click OK. Change the font to Arial, type the name of the newspaper and click OK. Drag the WordArt to the top of the page and widen it so that it extends to the blue layout guides just inside the margins. Select the WORDART SHAPE button 🔺 from the WordArt toolbar and choose the fourth shape in the fourth row, *Deflate Bottom.* To create a text shadow, click the SHADOW STYLE button 🔲 and choose SHADOW STYLE 6, the second choice in the second row.

❑ Click the INSERT WORDART button

❑ Enter the name of the newspaper

❑ Select a WordArt shape

❑ Create a text shadow

Once the WordArt has been added, replace the text in the frame below it. Highlight the text *Today's Date* and enter the actual date. Highlight the *Price* text and enter the price of the newspaper.

❑ Enter the date and the price of the newspaper

The font size and alignment must be changed in the frame containing the title text. Highlight the words *Camp Fitness Is a Fraud!* and choose 36 POINT from the Font Size drop-down menu. Select the CENTER button ☰ on the toolbar to position the text in the center of the frame.

❑ Increase the font size of the title

❑ Center the title

Now the students are ready to complete the body of the article. First, direct them to position the cursor after the word *by* and enter their names. Highlight the names and the *Investigative Reporters* text on the line below and center both lines in the text frame. To make these two lines more distinct, click the BOLD button **B** while the text is still highlighted.

❑ Enter students' names

❑ Make the text bold

Next, direct the students to highlight the *CITY, COUNTRY* text. Have them press the CAPS LOCK key and enter the city and country of their classroom. Press the CAPS LOCK key again to deactivate this command.

❑ Press the CAPS LOCK key and enter the location

Ask a volunteer to read the sentence following the dash, and inform the children that now they will complete the article. Encourage them to use the questions on the board to help them decide what to write. For example, what does the table at the bottom of the page suggest? What did the students discover about the exercise and nutrition programs that may explain why some of the campers have lower fitness scores at the end of their stay? What should be done about the problem? **Note:** When the students have entered enough text to fill the frame on the left side of the page, the text automatically flows into the frame on the right.

❑ Read the sentence after the dash aloud

❑ Discuss what to write

Once the pupils have finished writing their news stories, allow them to apply the formatting that they have learned during *Premiere Issue* to make their front pages more appealing. For example, they may select the text frame containing the price of the newspaper and choose the LINE/BORDER STYLE button and apply a border. Once a line thickness is selected and applied, have the students click the SHADOW STYLE button to create a text shadow. The students can add a page border by selecting the RECTANGLE tool and creating a frame that covers the entire page. Select FORMAT • AUTOSHAPE, click the BORDERART button, apply the desired border and click OK and OK again. Advanced students may also add a colorful pattern to a text frame.

❑ Apply formatting to the page as desired

❑ Add a border and a shadow around a text frame

❑ Create a page border

❑ Add a colorful pattern to a text frame

After all the formatting changes have been made, instruct the pupils to save and print their front page, then close the file and exit *Publisher.* This will return the students to the Results table in the CAMP.MDB database.

❑ Save and print
❑ Close and exit *Publisher*
❑ Return to the open *Access* database

Do the students know how to find the average fitness score of all the campers on the last day? In Lesson 5 they used a special database feature that performs mathematical functions such as averages and totals. Ask the children to recall the name of this feature, and confirm that it is a *query*. To perform a query, instruct the pupils to close the Results table, choose the QUERIES icon and double-click CREATE QUERY IN DESIGN VIEW. In the Show Table dialog box, choose RESULTS from the Tables tab, select the ADD button and click CLOSE.

❑ Review *query*

❑ Close the Results table

❑ Create a new query based on the Results table

Now the average final day fitness score will be determined. In the first column of the table at the bottom of the window, choose FITNESS SCORE (LAST DAY) from the Field drop-down list. Next, choose the TOTALS button on the toolbar to add the Total row to the table. Select AVG, which stands for *Average*, from the Total drop-down list and choose QUERY · RUN to determine the average. View the answer, then select SAVE from the File menu, enter a name for the query, such as "Average Score", and click OK. Close the Query window.

❑ Select which field to include in the query

❑ Choose the TOTALS button

❑ Select AVG from the Total drop-down list

❑ Run the query

❑ Save the query

❑ Close the Query window

Invite the children to suggest other queries that can be performed. For example, what is the average fitness score of all the campers on the first day? What is the average change in score? Remind the pupils that each time they must create a new query and save the results. Have them perform two or three new queries, then close the Query window and reopen the Results table.

❑ Suggest additional queries to perform

❑ Close the Query window

❑ Reopen the Results table

Review

Instruct the students to print the completed table, then close the CAMP.MDB database and exit *Access*. Instruct them to keep the pages in a safe place.

❑ Print the table

❑ Close the CAMP.MDB file and exit *Access*

Review the lesson's vocabulary, objectives and activities, and answer any questions. Encourage the students to discuss how they decoded the Results table to find the proof they needed to complete their newspaper article. Announce that in the next lesson, they will have one final chance to demonstrate all that they have learned about databases!

❑ Review the lesson

❑ Preview the next lesson