

QUIZ MASTER USER'S GUIDE¹

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Introduction

The Quiz Master is a computer game designed to help educate youth (grade school) on various water subjects while utilizing the students' familiarity and enjoyment of computers. The Quiz Master program is a stand-alone software package designed for PC's. The current Quiz Master program is equipped with the Water Quiz, which consists of a series of questions regarding water subjects in a multiple choice format. The user clicks on the user's choice for the correct answer. If correct, the program advances to the next question. If the selection is incorrect, the program asks for another selection, requiring the user to know or discover the correct information for each question, and thus enhancing the educational aspects of the program. Water Quiz has hundreds of questions in its database. Each time the program selects a new random set of questions, meaning a user can repeat the Water Quiz multiple times without repeating the same question series. The Water Quiz Master (teacher) has control over the number of questions asked in a quiz, the difficulty level, and subject categories.

Starting Quiz Master

Once Quiz Master and an Excel data file are downloaded, Quiz Master is ready to be used. The Excel file provided is protected and populated with various water-related questions. All have been assigned a category (type of question) and a difficulty level. If the user wishes to modify the file, a copy should be made and named by the user. The data file can then be customized to the user's needs, including the creation of completely different questions for an entirely different subject. The only requirement is to use the same Excel file format.

After Quiz Master is loaded and the short-cut icon is selected during the installation, the first display will be the start-up screen, as depicted in Figure 1.

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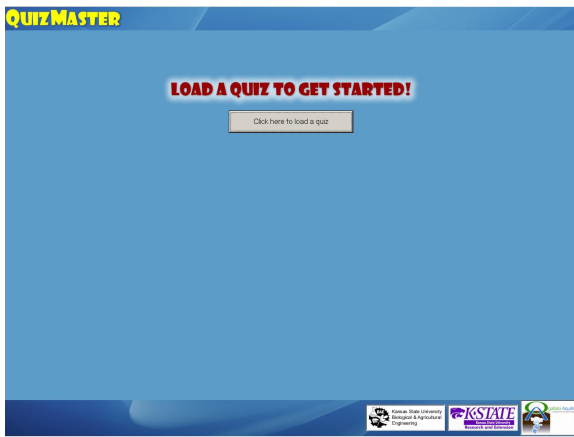


Figure 1. The start-up screen for the Quiz Master.

Loading a Quiz

From the start-up screen, the user can either click on the button in the middle of the screen labeled “Click here to load a quiz,” as shown in Figure 2, or select “File,” then “Load Quiz” in the upper left-hand corner.

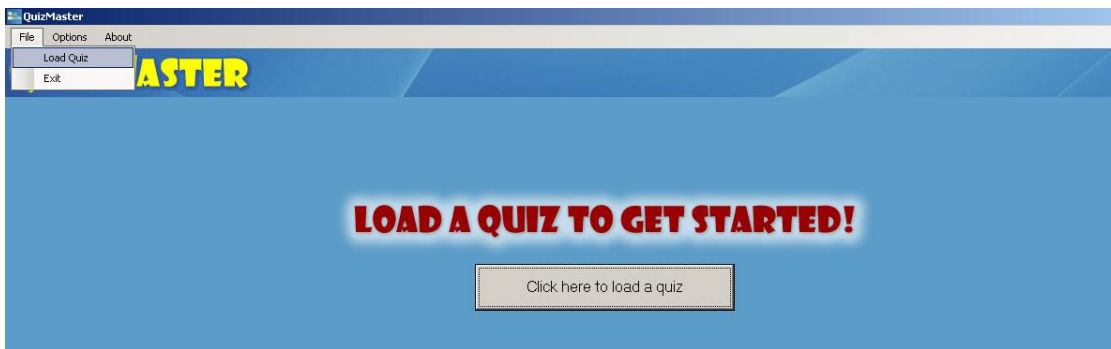


Figure 2. The start-up screen for the Quiz Master.

Once the “Load Quiz” option has been selected, Quiz Master will open the My Documents folder. A file labeled “Water Quiz Questions Released 2011.xls” or similar names if new updated files are added, as shown in Figure 3, can be selected by double-clicking the file or by selecting the “Open” control button. The user may choose to store the data files in other locations within the computer or select other Quiz Master data files developed by the user.

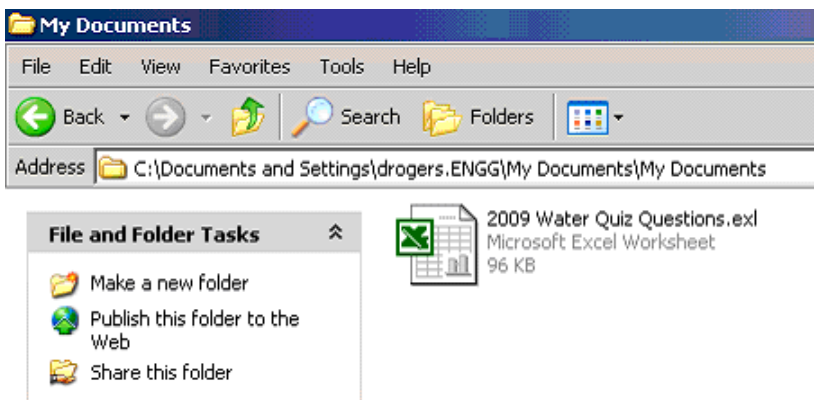


Figure 3. The Excel data file with the questions and answers for the Quiz Master.

Selecting the Type of Questions

After the “Open” button has been clicked, a box labeled “Options” appears, as shown in Figure 4. A user can change the type of questions given by selecting from the various topics listed under the “Select Categories” box located on the left side of the screen. As this is done, the box labeled “Select Available Difficulty Levels” on the right side of the screen changes because not all of the categories have the same number and/or difficulty level of questions available. If no categories are selected, the program automatically considers all categories possible for the quiz.

Selecting the Difficulty Level of Questions

In this same window (Figure 4), the user chooses the difficulty level of the quiz questions by selecting the representative boxes under “Select Available Difficulty Levels.” The numbers to the right of the difficulty level refer to how many questions are available for that level when formulating each new quiz. Quizzes are composed randomly, so each quiz should contain a different selection of questions taken from the specifications that are made in this window.

Quiz Length and Scoring

The “Options” window also allows the “Quiz Length and Scoring” to be changed. The box is located in the lower right-hand corner. Here the number of questions in the quiz can be changed by typing the desired number in the box next to “Total Questions in Quiz.” Also, located in the “Quiz Length and Scoring” box is a “Total Points Available” option which allows variation in the number of points possible for each quiz. Once all the desired options are set for the quiz, the user presses the “OK” button in the bottom right corner of the window (Figure 4).

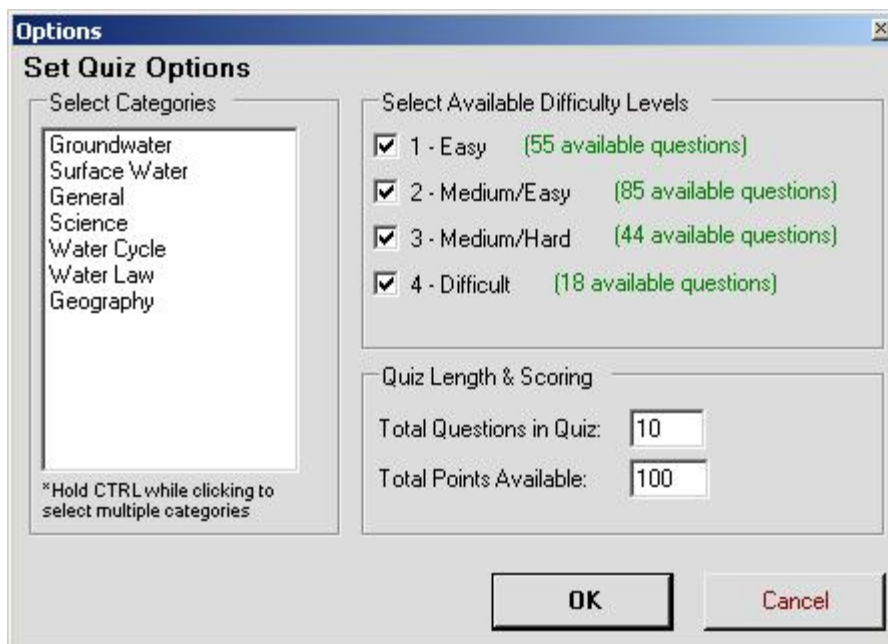


Figure 4. The “Options” control panel to select the types, difficulty, number, and value of the quiz for Quiz Master.

Starting the Quiz

After the “OK” button on the “Options” window has been clicked, Figure 5 appears. Select the “Go!” button to begin the quiz session.



Figure 5. After set-up is complete, click “GO” to begin the Quiz Master.

Setting the Font Size

In order to make the questions fit the screen better, “Options” should be selected on the menu bar, followed by “Font Size,” and then “Increase ++” if the font needs to be larger or “Decrease--” if the font needs to be smaller (Figure 6). Figure 7 shows the initial font size setting in Quiz Master while Figure 8 shows the same screen after clicking the “Increase “option four times.

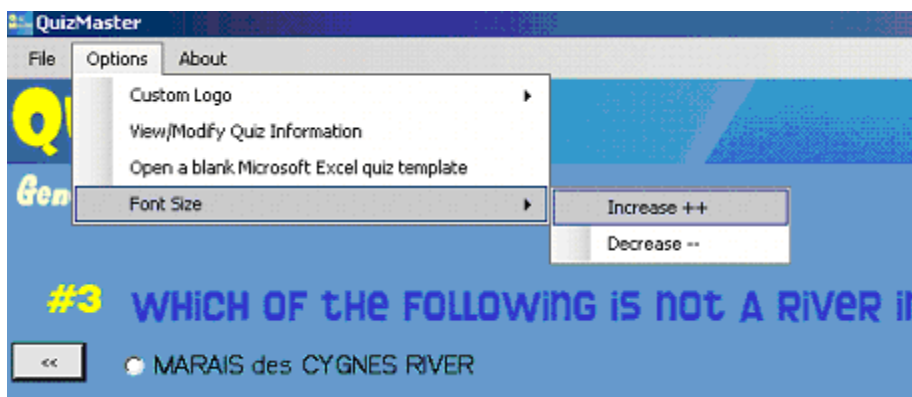


Figure 6. “Options” control button to change Quiz Master font size.

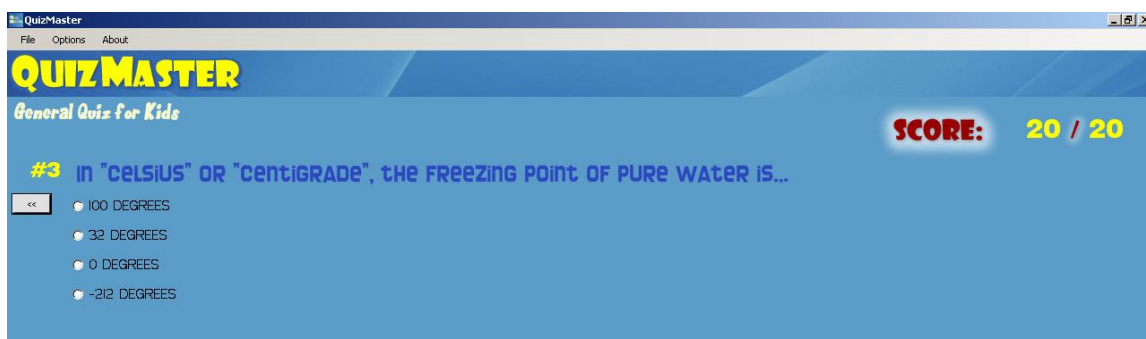


Figure 7. Standard font size setting for Quiz Master.

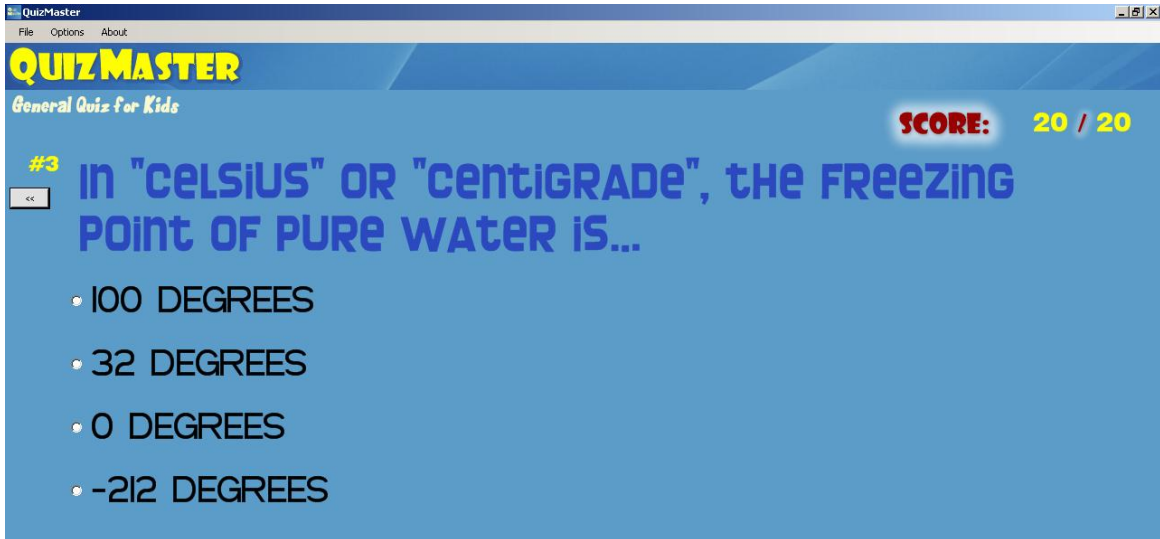


Figure 8. Increased font size using the “Font Size” option of Quiz Master.

Answering the Questions

For each question, the quiz taker is given four answers, one of which is the correct answer (Figure 9). The answer of choice is selected by clicking on the answer with the mouse. If the choice is incorrect, the words “Sorry, Try Again” appear (Figure 10). The quiz taker is allowed to answer again until the quiz taker is able to get the correct answer. Less credit is given as more attempts are taken to correctly answer the question. However, the correct answer must be selected before the Quiz Master will advance to the next question (Figures 10 and 11).

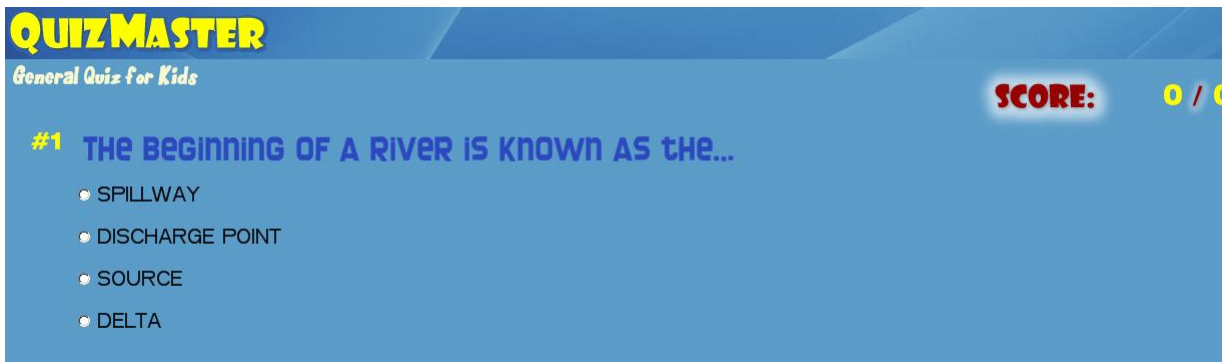


Figure 9. Display of the four multiple choice answer format of a Quiz Mater question.

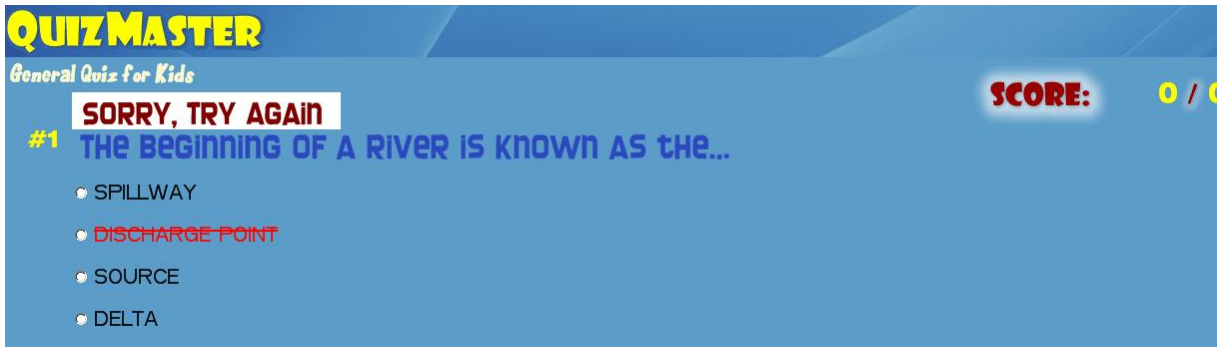


Figure 10. Display of Quiz Master question indicating an incorrect answer selection.

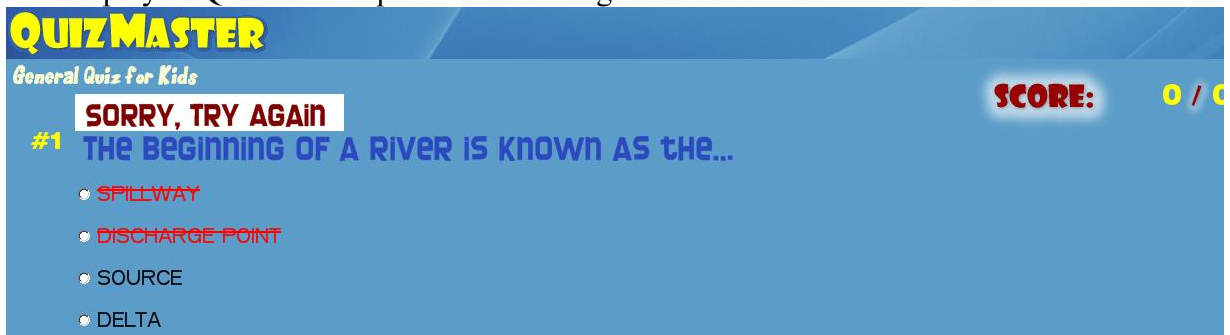


Figure 11. Display of Quiz Master question indicating a second incorrect answer selection.

Once the quiz taker succeeds in answering the question correctly, the phrase “Good Work!” (Figure 12) appears and Quiz Master automatically moves to the next question. The value of each question and partial credit is determined in the “Options Control Panel,” as previously discussed (Figure 4).

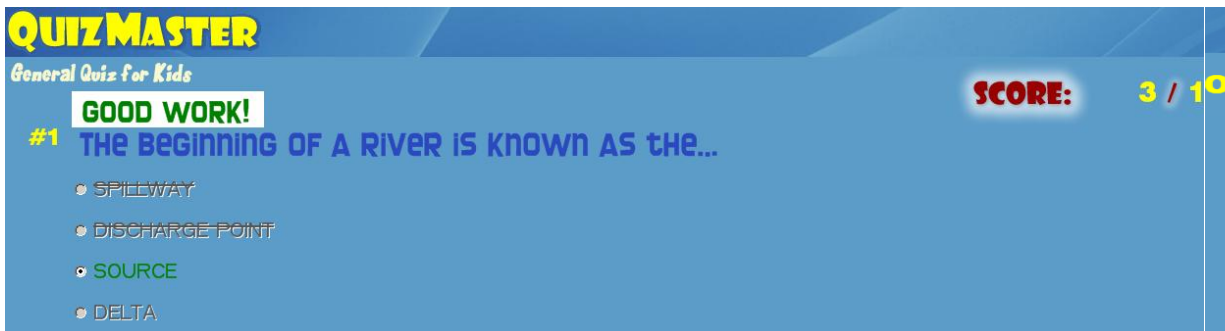


Figure 12. Display of Quiz Master question indicating a correct answer selection.

Finishing the Quiz

Once all of the questions have been answered, the finishing message (Figure 13) appears, giving the total score that the quiz taker received, along with a ranking of his/her understanding of water resources. To clear the answers and start a new quiz, the user presses the button on the lower left-hand side of the message labeled “Restart this Quiz” and returns to the “Starting the Quiz” window and a new quiz with different questions. The Quiz Master can be exited using the small “X” button located in the upper right-hand corner of the screen or from the File control button located in the upper left-hand corner and clicking on “Exit.”

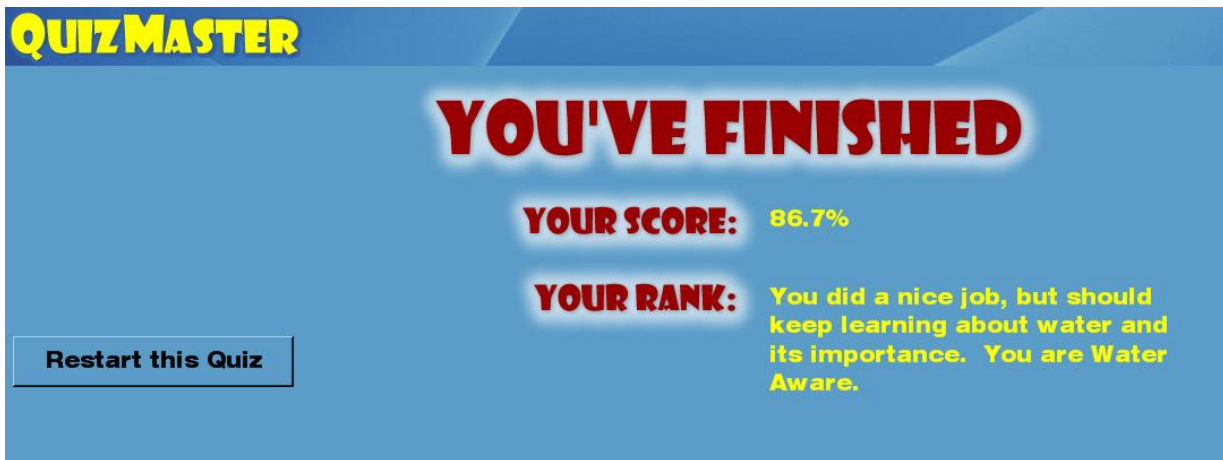


Figure 13. Display of Quiz Master indicating the score and ranking of the quiz taker and the button used to restart the Quiz Master.

Other Quiz Master Features

Three other features are available under the Options button (Figure 6). The custom logo allows a Quiz Master user to add an additional logo along the bottom panel of the start-up screen (Figure 1). The View/Modify Quiz Information takes the operator of the Quiz Master back to the Set Quiz Options panel (Figure 4). The user can also open a blank Microsoft Excel quiz template. New questions for new topics or additional subjects can be devolved and entered into this template, which is the proper format for the Quiz Master to use.

An Excel spreadsheet contains most of the data used by the Quiz Master. This spreadsheet has four worksheets that are illustrated in Figures 14-17. In the worksheet labeled “info,” the Quiz Title “General Quiz for Kids” is read from this worksheet and could be modified by changing the wording at this location (Figure 14).

In the tab labeled “Categories,” the question categories are listed (Figure 15). These are the categories used in the set-up panel of the Quiz Master. The category index column is the numerical number assigned to each category.

The main worksheet of the Excel file is the “data” worksheet containing ten columns of data (Figure 16). Column 1 is the numerical listing of the category of the question, while column 2 is the level of difficulty rated from 1 to 4 as assigned by the Quiz Master operator. Column 3 is the question followed by columns 4 -7, the four multiple choice answers developed for the question. In column 8, the correct answer is identified.

The final worksheet of the Excel program is labeled “ranks” (Figure 17). On this worksheet the score levels to achieve the various ranks can be modified. The verbal ratings shown at the end of each quiz also can be modified on this page.

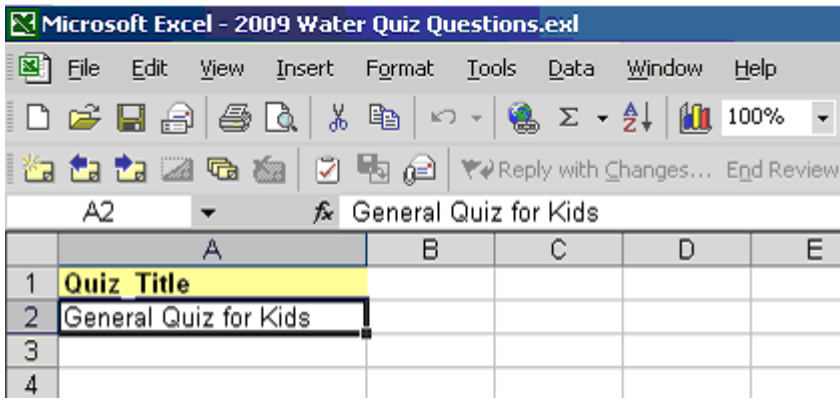


Figure 14. Excel worksheet showing the Quiz Title for the Quiz Master.

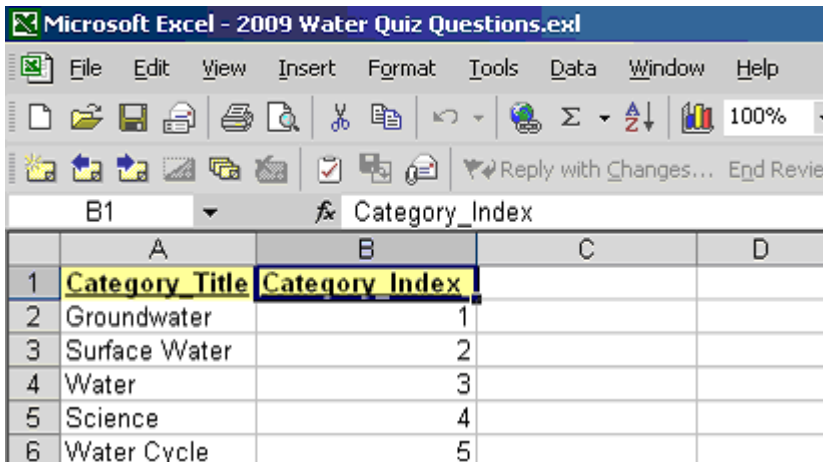


Figure 15. Excel worksheet showing the Category Title and Category Index used in the Quiz Master.

	A	B	C	D	E	F	G	H
	Category	Difficulty	Question	Answer1	Answer2	Answer3	Answer4	Correct Answer
2	1	1	1 What is water stored in an aquifer called?	SEPTIC WATER	CISTERN WATER	GROUND WATER	POLLUTED WATER	3
3	1	1	1 In an aquifer, if the amount of well pumping exceeds	RISE	DROP	REMAIN THE SAME	DEPEND ON THE POROSITY	2
4	2	1	1 The beginning of a river is known as the...	SPILLWAY	DISCHARGE POINT	SOURCE	DELTA	3
5	2	1	1 A smaller stream which flows into a larger stream is	TRIBUTARY	HEAD STREAM	RIVER	NONE OF THE ABOVE	1
6	2	1	1 The movement of surface water (such as a stream or	TIDE	WHIRLPOOL	CURRENT	VORTEX	3
7	2	1	1 Which of the following is NOT an example of standing	SWAMP	BOG	OXBOW LAKE	STREAM	4
8	2	1	1 The flat land bordering a river and is covered by water	FLOODPLAIN	WATERSHED	DELTA	WATER TABLE	1
9	2	1	1 Which one of the following is NOT an example of surf	STREAM	CREEK	RIVER	WELL	4
10	3	1	1 About how much water is used to flush a "low-flush"	1/2 GALLON	1 1/2 GALLONS	5 GALLONS	10 GALLONS	2
11	3	1	1 The name of an artificial body that is used to collect	STREAM	RESERVOIR	PLAYA	OCEAN	2
12	3	1	1 Which of the following crafts is NOT used on the wat	CANOE	RAFT	KAYAK	SNOWMOBILE	4
13	3	1	1 Approximately what percent of the Earth's surface is	20 %	35 %	55 %	70 %	4
14	3	1	1 Most of earth's "fresh" water is...	FOUND IN LARGE OCEANS	CONTAINED IN UNDERGROUNDS	FROZEN IN POLAR ICECAPS	IN THE MANY RIVERS, LAKE	3
15	3	1	1 A moving land mass of ice is called a...	SNOW DRIFT	AVALANCHE	TUNDRA	GLACIER	4
16	3	1	1 What term describes a "wind driven water pump"?	CENTRIFUGAL	WINDMILL	SOLAR	PARISH	2
17	3	1	1 What is the name of the large pipes used to supply w	WATER MAINS	LATERALS	TRIBUTARIES	NONE OF THE ABOVE	1
18	3	1	1 Which of the following is NOT a fresh water fish?	WALLEYE	CRAPPIE	BLUEGILL	PERCH	4
19	3	1	1 The primary surface water pollutant in the United Sta	oil SPILLS	SOIL OR SEDIMENT	ATRAZINE	LIVESTOCK WASTE	2
20	3	1	1 The name of the hole used to extract groundwater is	CISTERN	TANK	WATER LOG	WELL	4
21	3	1	1 Which of the following uses falling water to produce e	MAGNETO	BATTERIES	GENERATOR	HYDROPOWER	4

Figure 16. Excel worksheet showing data page of the Quiz Master.

Score	Rank	Instructions
100	You have a Perfect Score! You are a Water Whiz.	The score column value is evaluated as greater than or equal to. You can insert or delete any rows you wish to customize the quiz rankings for your situation.
90	You have an excellent score. You are Water Wise.	
75	You did a nice job, but should keep learning about water and its importance. You are Water Aware.	
0	Thank you for taking the Water Quiz. You may want to try to learn more about the importance of water and its many uses. Why don't you try the Water Quiz	

Figure 17. Excel worksheet showing page to set the score and rank comments for the Quiz Master.

Summary

The Quiz Master is an educational tool that is equipped with questions related to water resources and targeted towards grade school-aged youth. The Quiz Master uses an Excel file as the data source. This file can be modified with additional questions or new topic areas.

Acknowledgements

The Quiz Master was developed with support from the Mobile Irrigation Lab (MIL) program funded by Kansas State Water Plans Funds administered by the Kansas Water Office and the USDA Ogallala Aquifer Program, Water Information for Youth Project.

