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WINDOWS

Novell Network Installation Instructions

1. Logon to the SERVER from a workstation as Sys Op or Admin.
2. Insert the CD into CD ROM Drive and locate the grade level installer icon and double-click the installer icon.
3. Install to the following directory: F:\Tyera\X where "X" stands for the grade level.
4. After the installation, assign user rights to F:\Tyera directory.
(Read, Write, File Scan)
5. The path to the records directory is kept in a file called Where.Txt located in the Tyera folder where you installed the software. Make sure the file reflects the correct path such as: F:\Tyera\RECORDS\

Make sure you leave the backslash at the end of the line.

INSTALLATION INSTRUCTIONS: NT SERVER

Step 1 At the SERVER

1. On Drive C or any other available drive on the server, create a New Folder and name it Tyera.
2. From File Menu Click Sharing , Shared As and Maximum Allowed.
3. Click OK and close the Window of the Drive you selected in step 1 above.
4. Right-Click NetWork Neighborhood and Click on Map NetWork Drive
5. Choose Drive F or any other available Drive letter you wish to use for all the stations within the network.
6. On Path, scroll down to locate the Tyera folder : See example below

`\\ServerName\Tyera`
7. Click OK and close the Tyera folder.
8. Insert the CD into the CD Rom drive, navigate to the grade level folder and double-click the installer icon.
9. On the lower window choose the mapped Tyera Drive and click OK.
10. Follow the installation instructions on the screen until finished.
11. Open the mapped drive (Tyera) of the server and edit 'WHERE.TXT" to reflect the location of your record files. This path is necessary so that all the stations can send the Records to the same folder. Change from C:\Tyera\RECORDS\ to reflect the letter of your mapped drive. Example: F:\Tyera\RECORDS\
12. On the Tyera folder, locate the only .EXE file and create a shortcut and drag it to the desktop.

Step 2 At the WorkStation

From NetWork Neighborhood, locate the Tyera folder on the server and map it to the same Drive Letter you chose at the Server so that all stations are mapped to the same Drive. Create a shortcut of the only *.EXE file in the directory and drag it to the WorkStation's Desktop. The software is now available from the station. Repeat for the other stations. Map all stations to the same Drive Letter.

WINDOWS

StandAlone Installation Instructions

1. Insert the CD into the CD Rom drive and locate the grade level folder.
2. Double-click the installer icon.
3. Accept the default directory for the installation. The software will install to C:\Tyera\X where "X" stands for the grade level.
4. The installation will create the appropriate Login icons within a folder. Under Windows 9x, you can run any of the Login scripts from the Programs menu or you can create a shortcut and drag it to the desktop to make it easier for your students to run the software.
5. In the unlikely event you may have a technical question, please review the Frequently Asked Questions before placing your call. If your problem is not listed or you feel you need additional clarification, please call. You may also write down your question/problem or concern and Fax it to 281-232-2935 and receive an immediate response via FAX. Make sure you include your Phone number and Fax number and the best time for a tech representative to call you.

Macintosh Network Installation Instructions

1. Insert CD into file server and double-click the grade level folder to be installed.
2. Double-click the installer icon and follow the screen instructions until you see the message telling you the software has been successfully installed.
3. Copy "FILE.FXE" from the grade level folder of the CD into the folder where you installed the programs on the file server otherwise you will get error 999 when you try to run the software.
4. Open the "WHERE" file in each of the folders you just installed. The first line should have the exact name of the SERVER. If it is, then close the "WHERE" file otherwise make the adjustment. Records will be sent to the referenced folder.

* * * * *

After installing the software, set the file sharing on the installed folder. Begin by locating the folder on your networked hard drive. Select the installed folder by clicking on it once in the Finder window.

For OS 7.x systems:

- (1) Select "Sharing..." from the File menu.
- (2) Check the box labeled "Share this item and its contents".
- (3) Check each of the three boxes to the right of the label "Everyone" so that all users may "See Folders", "See Files," and "Make Changes."
- (4) Check the box labeled "Make all currently enclosed folders like this one."
- (5) Close the window and accept all the changes.

For OS 8.x and OS 9.x

- (1) Select "Get Info" from the File menu.
- (2) Select "Sharing" from the Show drop down list.
- (3) Check the box labeled "Share this item and its contents".
- (4) Change the icon to the right of the label "Everyone" to allow all users the privileges to read and write.
- (5) Click the "Copy" button to apply these rights to the remainder of the files.
- (6) Close the window and accept all the changes.

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In the event AppleShare reports a "File cannot be opened because it is already in use" error, then make sure you lock the files on the server otherwise AppleShare will not let you use the file simultaneously.

Macintosh

StandAlone Installation Instructions

1. Insert the CD into the CD Rom drive.
2. Locate the grade level folder, and double-click the installer icon. Read and respond to the questions on the screen until you get the message indicating the software installed successfully.
3. Press the [QUIT] button, but do not remove disk from the drive until you complete step 4 below.
4. Drag "FILE.FXE" from the CD to the red folder where the software was installed. The programs will not work without the file named "FILE.FXE" being in the same folder as the rest of the programs.
5. Open the "WHERE.TXT" file in each of the folders you just installed. The first line should have the exact name as your Mac. If it is the same, close the "WHERE" file, otherwise make the adjustment. The programs are now ready. Select the folder you want and double-click the Program icon. To make it easier for your students, you might want to make an alias of the program and drag it to the desktop.

Windows Management System

The management system is quite simple. Students click on the Student Login button to use the software. Teachers click on the Management button to accomplish administrative tasks. First teachers must be added to the teacher list so that their respective rosters can be created. Student names are added one at a time along with a student password. Only students appearing on a teacher's roster can use the program.

Once the computer adds a student's name to the roster, the Management System will keep such information as the student's name, the date and time of the last session, how much time was spent on the lesson, the grade, mastery status, and the total time spent on each of the objectives throughout the entire year.

Additionally, the Management System will provide each student his/her individual report for the Writing Programs, The Reading Programs, and the Math Programs.

Within each individual menu is a "Report" button the student can select to see his/her report for each of the three areas. If a printer is available, the report can be printed by simply clicking on the "Print" button at the bottom of the report screen.

The computer will continue to update a student's information as long as the student's directory is present. At the end of the year students should be deleted from the hard drive or network. Deleting students is also quite simple. Delete the student's directory from the hard drive.

If you wish to delete everyone from the system at once, then delete the RECORDS directory which is located in C:\Tyera\RECORDS. If you have a NetWork version, the location is F:\Tyera\RECORDS. On NT Server, trash the entire mapped drive where the records reside.

For technical assistance, review the Frequently Asked Questions prior to placing your call. If your problem is not listed or you need additional help, please call the number below. You may also describe your technical problem in writing and Fax to 281-232-2935 for an immediate response via Fax. Please provide you phone number and fax and the best time for a tech representative to call you.

Macintosh Management System

The management system is quite simple. Students click on the Student Login button to use the software. Teachers click on the Management button to accomplish administrative tasks. First teachers must be added to the teacher list so that their respective rosters can be created. Once a teacher's roster is created, students appearing on the roster can use the program.

Once the computer adds a student's name to the roster, the Management System will keep such information as the student's name, the date and time of the last session, how much time was spent on a lesson, the grade, mastery status, and the total time spent on each of the objectives throughout the entire year.

Additionally, the Management System will provide each student his/her individual report for the Writing Programs, The Reading Programs, and the Math Programs.

Within each individual menu is a "Report" button the student can select to see his/her report for each of the three areas. If a printer is available, the report can be printed by simply clicking on the "Print" button at the bottom of the report screen.

The computer will continue to update a student's information as long as the student's folder is present. At the end of the year students should be deleted from the hard drive. Deleting students is also quite simple. Delete the student's folder from the hard drive by putting it into the trash.

If you wish to delete everyone from the system at once, then delete the entire RECORDS folder which is located in the Tyera folder inside the System Folder.

For technical assistance, review the Frequently Asked Questions prior to placing your call. If your problem is not listed or you need additional help, please call the number below. You may also describe your technical problem in writing and Fax to 281-232-2935 for an immediate response via Fax. Please provide you phone number and fax and the best time for a tech representative to call you.

Windows

Frequently Asked Questions and Trouble Shooting

1. After entering my password during Login the computer seems to be in a loop and the program doesn't do anything. What is wrong?

Open the "WHERE.TXT" file in the programs directory and make sure it has the following: C:\Tyera\RECORDS\

On Novell network, it should have: F:\Tyera\RECORDS\ or the mapped drive.

On Windows NT, it should reflect the mapped drive letter.

2. We have the Management System on the network yet the student reports have nothing in them. What is wrong?

Assign user rights (Read, Write, File Scan) to the RECORDS directory so the networking software will allow our software to write to the data files and also assign user rights to the Tyera Directory.

4. I am using the software on a Network, but only one student at a time can use the software. What is wrong?

Tag the folders as shareable so that more than one student can use the programs. Also remember to assign user rights accordingly.

5. I get error #999 when trying to use the software, and there is a message to call technical support. What is wrong?

The path to the record files is incorrect or the user does not have the rights to the Tyera\XRECORDS\ directory.

Macintosh

Frequently Asked Questions and Trouble Shooting

1. After entering my password during Login the computer tells me to insert the disk called Macintosh HD. What is wrong?

Open the "WHERE.TXT" file which resides in the same folder as the programs and change the first of three lines to show your Mac's name.

2. When trying to print a report, students get an "Out of Memory" error.

Your monitor is set to either 256 or millions of colors. Go to the Control Panel and reset the Monitor setting to 16 colors, print the report, and reset the colors to the previous setting.

3. I am using the software on a Network, but only one student at a time can use the software. What is wrong?

From your server run AppleShare and tag the folders as shareable so that more than one student can use the programs. Remember to assign user rights to the folders you want the students to use.

4. I get error #999 when trying to use the software, and there is a message to call technical support. What is wrong? Copy FILE.FXE to the red folder.

After installing the software, set the file sharing on the installed folder. Begin by locating the folder on your networked hard drive. Select the installed folder by clicking on it once in the Finder window.

For OS 7.x systems:

- (1) Select "Sharing..." from the File menu.
- (2) Check the box labeled "Share this item and its contents".
- (3) Check each of the three boxes to the right of the label "Everyone" so that all users may "See Folders", "See Files," and "Make Changes."
- (4) Check the box labeled "Make all currently enclosed folders like this one."
- (5) Close the window and accept all the changes.

For OS 8.x and OS 9.x

- (1) Select "Get Info" from the File menu.
- (2) Select "Sharing" from the Show drop down list.
- (3) Check the box labeled "Share this item and its contents".
- (4) Change the icon to the right of the label "Everyone" to allow all users the privileges to read and write.
- (5) Click the "Copy" button to apply these rights to the remainder of the files.
- (6) Close the window and accept all the changes.

Creating Teachers' List

Double-Click the Program icon to run the program.

Click the Management Button to create the teacher list. Enter the name of the first month of the year as your **password**. Do not share the password with your students. Students will have their own password when the rosters are created. In the event the students forget their individual password, teachers can look inside the student folder to find out their password.

Click the Add Teachers button and enter the names of your teachers. Then add the students to each of the teachers on the list to create the rosters.

Student Login

Students log onto the system by double-clicking the appropriate Program icon. The program will then show the list of teachers that have been entered into the system. Students select their teacher by clicking on their teacher's name.

Once the teacher is selected, the class roster will appear so that students can click on their name to begin. After the student has clicked on his/her name, the program will ask for a password. Teachers should assign and control the password for each student.

Once the roster is complete, tag it as a "Read Only" file to prevent problems. The name of the roster is located in the teacher's folder under the Records directory within the Tyera folder and is called Users.Txt.

Upon enrollment, students will see a general menu to select Reading, Writing, or Math. Once students make their selection, they will be shown another menu showing the Program Titles under the subject selected. To return to the main menu, students click on the "Quit" button or Control Q will always quit any program.

Reading Objectives Grade 4

DOMAIN: READING COMPREHENSION

Objective 1 Word Meaning

The student will determine the meaning of words in a variety of written texts.

(4.9) **Reading/vocabulary development.** The student acquires an extensive vocabulary through reading and systematic word study. The student is expected to:

(B) *[draw on experiences to]* bring meanings to words in context, such as interpreting figurative language and multiple-meaning words (4-5)

(D) determine meanings of derivatives by applying knowledge of the meanings of root words such as *like, pay, or happy* and affixes such as *dis-, pre-, or Un-* (4-8)

Objective 2 Supporting Ideas

The student will identify supporting ideas in a variety of written texts.

(4.10) **Reading/comprehension.** The student comprehends selections using a variety of strategies. The student is expected to:

(E) use the text's structure or progression of ideas, such as cause and effect or chronology, to locate and recall information (4-8)

(F) determine a text's main (or major) ideas and how those ideas are supported with details (4-8)

(4.12) **Reading/text structures/literary concepts.** The student analyzes the characteristics of various types of texts (genres). The student is expected to:

(I) recognize and analyze story plot, setting, and problem resolution (4-8)

(4.13) **Reading/inquiry/research.** The student inquires and conducts research using a variety of sources. The student is expected to:

(D) interpret and use graphic sources of information, such as maps, graphs, time lines, tables, or diagrams, to address research questions (4-5)

Objective 3 Main Idea

The student will summarize a variety of written texts.

(4.10) **Reading/comprehension.** The student comprehends selections using a variety of strategies.

The student is expected to:

(F) determine a text's main (or major) ideas and how those ideas are supported with details (4-8)

(G) paraphrase and summarize text to recall, inform, or organize ideas (4-8)

Objective 4 Relationships and Outcomes

The student will perceive relationships and recognize outcomes in a variety of written texts.

(4.10) **Reading/comprehension.** The student comprehends selections using a variety of strategies. The student is expected to:

(E) use the text's structure or progression of ideas, such as cause and effect or chronology, to locate and recall information (4-8)

(4.11) **Reading/literary response.** The student expresses and supports responses to various types of texts. The student is expected to:

(A) offer observations, make connections, react, speculate, interpret, and raise questions in response to texts (4-8)

(D) connect, compare, and contrast ideas, themes, and issues across text (4-8)

Objective 5 Analyze Information

The student will analyze information in a variety of written texts in order to make inferences and generalizations.

(4.10) Reading/comprehension. The student comprehends selections using a variety of strategies. The student is expected to:

(H) draw inferences, such as conclusions or generalizations, and support them with text evidence and experience (4-8)

(4.12) Reading/text structures/literary concepts. The student analyzes the characteristics of various types of texts (genres). The student is expected to:

(H) analyze characters, including their traits, motivations, conflicts, points of view, relationships, and changes they undergo (4-8)

(I) recognize and analyze story plot, setting, and problem resolution (4-8)

(4.13) Reading/inquiry/research. The student inquires and conducts research using a variety of sources. The student is expected to:

(D) interpret and use graphic sources of information, such as maps, graphs, time lines, tables, or diagrams, to address research questions (4-5)

(G) draw conclusions from information gathered from multiple sources (4-8)

Objective 6 Point of View

The student will recognize points of view, propaganda, and/or statements of fact and opinion in a variety of written texts.

(4.10) Reading/comprehension. The student comprehends selections using a variety of strategies. The student is expected to:

(J) distinguish fact and opinion in various texts (4-8)

(4.12) **Reading/text structures/literary concepts.** The student analyzes the characteristics of various types of texts (genres). The student is expected to:

(C) identify the purposes of different types of texts, such as to inform, influence, express, or entertain (4-8)

(I) describe how the author's perspective or point of view affects the text (4-8)

Writing Objectives Grade 4

DOMAIN: WRITTEN COMMUNICATION

Objective 1*

The student will respond appropriately in a written composition to the purpose/audience specified in a given topic.

- (4.15) **Writing/purposes.** The student writes for a variety of audiences and purposes and in a variety of forms. The student is expected to:
- (B) write to influence, such as to persuade, argue, and request (4-8)
 - (C) write to inform, such as to explain, describe, report, and narrate (4-8)
 - (D) write to entertain, such as to compose [*humorous poems or*] short stories (4-8)
 - (E) exhibit an identifiable voice in personal narratives and in stories (4-5)
 - (F) choose the appropriate form for his/her own purpose for writing, including [*journals,*] letters, [*reviews, poems,*] narratives, and instructions (4-5)

Objective 2*

The student will organize ideas in a written composition on a given topic.

- (4.19) **Writing/writing processes.** The student selects and uses writing processes for self-initiated and assigned writing. The student is expected to:
- (B) develop drafts by categorizing ideas, organizing them into paragraphs, and blending paragraphs within larger units of text (4-8)
 - (C) revise selected drafts by adding, elaborating, deleting, combining, and rearranging text (4-8)
 - (D) revise drafts for coherence, progression, and logical support of ideas (4-8)

Objective 3*

The student will demonstrate control of the English language in a written composition on a given topic.

- (4.16) **Writing/penmanship/capitalization/punctuation.** The student composes original texts, applying the conventions of written language, such as capitalization, punctuation, and penmanship, to communicate clearly. The student is expected to:
- (B) capitalize and punctuate correctly to clarify and enhance meaning, such as capitalizing titles, using possessives, commas in a series, [*commas in direct*

address,] and sentence punctuation (4-5)

(4.17) **Writing/spelling.** The student spells proficiently. The student is expected to:

(D) spell accurately in *[final]* drafts (4-8)

(4.18) **Writing/grammar/usage.** The student applies standard grammar and usage to communicate clearly and effectively in writing. The student is expected to:

(A) use regular and irregular plurals correctly (4-6)

(B) write in complete sentences, varying the types, such as compound and complex, to match meanings and purposes (4-5)

(C) employ standard English usage in writing for audiences, including subject-verb agreement, pronoun referents, and parts of speech (4-8)

(D) use adjectives (comparative and superlative forms) and adverbs appropriately to make writing vivid or precise (4-8)

(F) use conjunctions to connect ideas meaningfully (4-5)

(C) write with increasing accuracy when using apostrophes in contractions, such as *it's*, and possessives, such as *Jan's* (4-8)

(H) write with increasing accuracy when using objective case pronouns such as "Dan cooked for you and me." (4-5)

(4.19) **Writing/writing processes.** The student selects and uses writing processes for self-initiated and assigned writing. The student is expected to:

(E) edit drafts for specific purposes such as to ensure standard usage, varied sentence structure, and appropriate word choice (4-8)

Objective 4*

The student will generate a written composition that develops/supports/elaborates the central idea stated in a given topic.

(4.18) **Writing/grammar/usage.** The student applies standard grammar and usage to communicate clearly and effectively in writing. The student is expected to:

(D) use adjectives (comparative and superlative forms) and adverbs appropriately to make writing vivid or precise (4-8)

(E) use prepositional phrases to elaborate written ideas (4-8)

(4.19) **Writing/writing processes.** The student selects and uses writing processes for self-initiated and assigned writing. The student is expected to:

(B) develop drafts by categorizing ideas, organizing them into paragraphs, and blending paragraphs within larger units of text (4-8)

- (C) revise selected drafts by adding, elaborating, deleting, combining, and rearranging text (4-8)
- (D) revise drafts for coherence, progression, and logical support of ideas (4-8)

Objective 5 Sentence Construction

The student will recognize appropriate sentence construction within the context of a written passage.

(4.18) **Writing/grammar/usage.** The student applies standard grammar and usage to communicate clearly and effectively in writing. The student is expected to:

- (B) write in complete sentences, varying the types, such as compound and complex, to match meanings and purposes (4-5)
- (F) use conjunctions to connect ideas meaningfully (4-5)

(4.19) **Writing/writing processes.** The student selects and uses writing processes for self-initiated and assigned writing. The student is expected to:

- (C) revise selected drafts by adding, elaborating, deleting, combining, and rearranging text (4-8)

Objective 6 English Usage

The student will recognize appropriate English usage within the context of a written passage.

(4.18) **Writing/grammar/usage.** The student applies standard grammar and usage to communicate clearly and effectively in writing. The student is expected to:

- (C) employ standard English usage in writing for audiences, including subject-verb agreement, pronoun referents, and parts of speech (4-8)
- (D) use adjectives (comparative and superlative forms) and adverbs appropriately to make writing vivid or precise (4-8)
- (H) write with increasing accuracy when using objective case pronouns, such as "Dan cooked for you and me." (4-5)

Objective 7 Spelling, Capitalization, Punctuation

The student will proofread for spelling, capitalization, and punctuation errors within the context of a written passage.

(4.16) **Writing/penmanship/capitalization/punctuation.** The student composes original texts, applying the conventions of written language, such as capitalization, punctuation, and penmanship, to communicate clearly. The student is expected to:

(B) capitalize and punctuate correctly to clarify and enhance meaning, such as capitalizing titles, using possessives, commas in a series, [*commas in direct address,*] and sentence punctuation (4-5)

(4.17) **Writing/spelling.** The student spells proficiently. The student is expected to:

(A) write with accurate spelling of syllable constructions, including closed, open, consonant before *-le*, and syllable boundary patterns (3-6)

(B) write with accurate spelling of roots, such as *drink, speak, read, or happy*, inflections such as those that change tense or number, suffixes such as *-able* or *-less*, and prefixes such as *re-* or *un-* (4-6)

(D) spell accurately [*in final drafts*] (4-8)

(4.18) **Writing/grammar/usage.** The student applies standard grammar and usage to communicate clearly and effectively in writing. The student is expected to:

(C) write with increasing accuracy when using apostrophes in contractions such as *it's* and possessives such as *Jan's* (4-8)

(4.19) **Writing/writing processes.** The student selects and uses writing processes for self-initiated and assigned writing. The student is expected to:

(H) proofread his/her own writing and that of others (4-8)

* Objectives 1-4 are classroom activities beyond the scope of this software.

Grade 4 Mathematics Objectives

DOMAIN:CONCEPTS

Objective 1 Number Concepts

The student will demonstrate an understanding of number concepts.

- (4.1) **Number, operation, and quantitative reasoning.** The student uses place value to represent whole numbers and decimals. The student is expected to:
- (A) use place value to read, write, compare, and order whole numbers through the millions place
- (4.2) **Number, operation, and quantitative reasoning.** The student describes and compares fractional parts of whole objects or sets of objects. The student is expected to:
- (A) generate equivalent fractions using *[concrete and]* pictorial models
 - (C) compare and order fractions using *[concrete and]* pictorial models
 - (D) relate decimals to fractions that name tenths and hundredths using models

Objective 2 Math Relations

The student will demonstrate an understanding of mathematical relations, functions, and other algebraic concepts.

- (4.6) **Patterns, relationships, and algebraic thinking.** The student uses patterns in multiplication and division. The student is expected to:
- (B) solve division problems related to multiplication facts (fact families), such as $9 \times 9 = 81$ and $81 \div 9 = 9$
- (4.7) **Patterns, relationships, and algebraic thinking.** The student uses organizational structures to analyze and describe patterns and relationships. The student is expected to:
- describe the relationship between two sets of related data, such as ordered pairs in a table

Objective 3 Geometric Properties

The student will demonstrate an understanding of geometric properties and relationships.

- (4.8) **Geometry and spatial reasoning.** The student identifies and describes lines, shapes, and solids using formal geometric language. The student is expected to:

- (A) identify right, acute, and obtuse angles
- (B) identify models of parallel and perpendicular lines
- (C) describe shapes and solids in terms of vertices, edges, and faces

(4.9) **Geometry and spatial reasoning.** The student connects transformations to congruence and symmetry. The student is expected to:

- (B) use translations, reflections, and rotations to verify that two shapes are congruent
- (C) use reflections to verify that a shape has symmetry

(4.10) **Geometry and spatial reasoning.** The student recognizes the connection between numbers and points on a number line. The student is expected to:

locate and name points on a number line using whole numbers, fractions such as halves and fourths, and decimals such as tenths

Objective 4 Measurement Concepts

The student will demonstrate an understanding of measurement concepts using metric and customary units.

(4.11) **Measurement.** The student selects and uses appropriate units and procedures to measure weight and capacity. The student is expected to:

- (A) estimate and measure weight using standard units, including ounces, pounds, grams, and kilograms
- (B) estimate and measure capacity using standard units, including milliliters, liters, cups, pints, quarts, and gallons

(4.12) **Measurement.** The student applies measurement concepts. The student is expected to:

measure to solve problems involving length, including perimeter, time, temperature, and area

Objective 5 Probability & Statistics

The student will demonstrate an understanding of probability and statistics.

(4.13) **Probability and statistics.** The student solves problems by collecting, organizing, displaying, and interpreting sets of data. The student is expected to:

- (A) list all possible outcomes of a probability experiment, such as tossing a coin
- (C) Interpret bar graphs

DOMAIN: OPERATIONS

Objective 6 Addition

The student will use the operation of addition to solve problems.

(4.3) **Number, operation, and quantitative reasoning.** The student adds and subtracts to solve meaningful problems involving whole numbers and decimals. The student is expected to:

- (A) use addition and subtraction to solve problems involving whole numbers
- (B) add and subtract decimals to the hundredths place using [*concrete and*] pictorial models

Objective 7 Subtraction

The student will use the operation of subtraction to solve problems.

(4.3) **Number, operation, and quantitative reasoning.** The student adds and subtracts to solve meaningful problems involving whole numbers and decimals. The student is expected to:

- (A) use addition and subtraction to solve problems involving whole numbers
- (B) add and subtract decimals to the hundredths place using [*concrete and*] pictorial models

Objective 8 Multiplication

The student will use the operation of multiplication to solve problems.

(4.4) **Number, operation, and quantitative reasoning.** The student multiplies and divides to solve meaningful problems involving whole numbers. The student is expected to:

- (C) recall and apply multiplication facts through 12×12
- (D) use multiplication to solve problems involving two-digit numbers

Objective 9 Division

The student will use the operation of division to solve problems.

(4.4) **Number, operation, and quantitative reasoning.** The student multiplies and divides to solve meaningful problems involving whole numbers. The student is expected to:

- (E) use division to solve problems involving one-digit divisors

DOMAIN: PROBLEM SOLVING

Objective 10 Estimating Solutions

The student will estimate solutions to a problem situation.

(4.5) Number, operation, and quantitative reasoning. The student estimates to determine reasonable results. The student is expected to:

- (A) round whole numbers to the nearest ten, hundred, or thousand to approximate reasonable results in problem situations
- (B) estimate a product or quotient beyond basic facts

Objective 11 Solution Strategies

The student will determine solution strategies and will analyze or solve problems.

(4.3) Number, operation, and quantitative reasoning. The student adds and subtracts to solve meaningful problems involving whole numbers and decimals. The student is expected to:

- (A) use addition and subtraction to solve problems involving whole numbers

(4.4) Number, operation, and quantitative reasoning. The student multiplies and divides to solve meaningful problems involving whole numbers. The student is expected to:

- (D) use multiplication to solve problems involving two-digit numbers
- (E) use division to solve problems involving one-digit divisors

(4.12) Measurement. The student applies measurement concepts. The student is expected to:

measure to solve problems involving length, including perimeter, time, temperature, and area

Objective 12 Math Relations

The student will express or solve problems using mathematical representation.

(4.4) Number, operation, and quantitative reasoning. The student multiplies and divides to solve meaningful problems involving whole numbers. The student is expected to:

- (B) represent multiplication and division situations in picture, word, and number form

(4.13) Probability and statistics. The student solves problems by collecting, organizing,

displaying, and interpreting sets of data. The student is expected to:

(C) interpret bar graphs

Objective 13 Evaluate Reasonableness

The student will evaluate the reasonableness of a solution to a problem situation.

(4.5) **Number, operation, and quantitative reasoning.** The student estimates to determine reasonable results. The student is expected to:

(A) round whole numbers to the nearest ten, hundred, or thousand to approximate reasonable results in problem situations

(B) estimate a product or quotient beyond basic facts

Reading - Essential Knowledge Skills

Example from Objective 1

-A- (4.9) Reading/vocabulary development. The student acquires an extensive vocabulary through reading and systematic word study. The student is expected to:

-C-

-B- (B) *[draw on experiences to]* bring meanings to words in context, such as interpreting figurative language and multiple-meaning words (4—5)

Example from Objective 3

(4.10) **Reading/comprehension.** The student comprehends selections using a variety of strategies. The student is expected to:

(F) determine a text's main (or major) ideas and how those ideas are supported with details (4-8) **-E-** **-D-**

KEY

A. Knowledge and Skills Statement

This broad statement describes what students should know and be able to do for Grade 4 reading. The number preceding the statement identifies the grade and number of the knowledge and skills statement.

B. Student Expectation

This specific statement describes what students should be able to do to demonstrate proficiency in what is described in the knowledge and skills statement. Students will be tested on skills outlined in the student expectation statement.

C. *[Italicized, bracketed text]*

Although the entire student expectation has been provided for reference, text in bracketed italics indicates that this portion of the student expectation will not be tested.

D. Underlined text

Underlined text indicates that this portion of the student expectation is not tested in this objective but is tested in another objective.

E. (4—8)

The student expectation is taught from Grade 4 through Grade 8.

Writing - Essential Knowledge Skills

Example from Objective 1

-A- (4.15) **Writing/purposes.** The student writes for a variety of audiences and purposes and in a variety of forms. The student is expected to:

- C-

-B- (D) write to entertain, such as to compose [*humorous poems or*] short stories (4—8)

Example from Objective 2

(4.19) Writing/writing processes. The student selects and uses writing processes for self-initiated and assigned writing. The student is expected to:

(C) revise selected drafts by adding, elaborating, deleting, combining, and rearranging text (4—8)-**E-** **-D-**

KEY

A. Knowledge and Skills Statement

This broad statement describes what students should know and be able to do for Grade 4 writing. The number preceding the statement identifies the grade and number of the knowledge and skills statement.

B. Student Expectation

This specific statement describes what students should be able to do to demonstrate proficiency in what is described in the knowledge and skills statement. Students will be tested on skills outlined in the student expectation statement.

C. [*Italicized, bracketed text*]

Although the entire student expectation has been provided for reference, text in bracketed italics indicates that this portion of the student expectation will not be tested.

D. Underlined text

Underlined text indicates that this portion of the student expectation is not tested in this objective but is tested in another objective.

E. (4—8)

The student expectation is taught from Grade 4 through Grade 8.

Math - Essential Knowledge Skills

Example from Objective 6

- A- (4.3) Number, operation, and quantitative reasoning.** The student adds and subtracts to solve meaningful problems involving whole numbers and decimals. The student is expected to:
- B- (B) add and subtract** decimals to the hundredths place using *[concrete and]*
-D-
pictorial models **-C-**

KEY

A. Knowledge and Skills Statement

This broad statement describes what students should know and be able to do for Grade 4 mathematics. The number preceding the statement identifies the grade and number of the knowledge and skills statement.

B. Student Expectation

This specific statement describes what students should be able to do to demonstrate proficiency in what is described in the knowledge and skills statement. Students will be tested on skills outlined in the student expectation statement.

C. *[Italicized, bracketed text]*

Although the entire student expectation has been provided for reference, text in bracketed italics indicates that this portion of the student expectation will not be tested.

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