Introduction

Curriculum Overview

A math program that is rich in content, offers a multi-sensory approach to learning, and engages the whole child is more appealing to all learners. Math concepts build as students master each individual concept before moving on to another.

Before beginning the curriculum, please take a few minutes and look through the text, ***Texas Go Math!*** at www-k6.thinkcentral.com. Your student will use this digital text for all assignments and independent practice.

This course is completed entirely online in Blackboard using the PDF **Unit Lessons** and **Worksheets** documents, along with the digital textbook.

Successful implementation of this curriculum will depend upon being prepared for each lesson. At the beginning of each unit, as well as the beginning of each lesson, you will find a list of everything you will need: textbooks, optional literature, and other materials. In addition, the lesson structure is similar for each of the lessons. Please be familiar with the textbook and the lesson details. Your child will be using the textbook almost every day. You will find a plethora of activities in the textbook; however, some will not be assigned. Please feel free to participate in any of the activities as these will reinforce the math skills that are taught.

Because we apply math in our everyday lives, you will find numerous examples of real-world math applications in each lesson, opportunities to discuss the lesson activities with your student, as well as games that reinforce math concepts in unique ways. The technology activities on the textbook publisher's website offer a different but fun approach to learning math skills. Information on logging into this website is available in the **Online Resources** section of this Introduction. Once you have accessed the website, click on *My Library*; you will have access to a variety of resources. Although the activities, practices, games, and books may not all be assigned in the curriculum, please feel free to include them when time permits.

For each Unit assessment in this course, the student will download and complete PDF **Unit Test** pages, then scan or take a digital photograph of the completed pages showing his or her work. Combine the images into a single PDF (see **Requirements for Creating PDFs** on the course home page) and upload the file for grading as instructed in the assignment.

We hope you and your child will find this curriculum fun and challenging!

1st Grade Mathematics

First-grade mathematics is the foundation to learning patterns, addition, subtraction, counting, time, and graphs. The more the student practices with numbers, the more he or she will become confident with the basic concepts taught in this course. The student will have fun playing math games and learning the different ways to go from concrete learning to abstract learning.

The Texas Essential Knowledge and Skills (TEKS) list the requirements for every course given to students in Texas. At the end of this course, the TEKS require that student should be able to do the following:

1. Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:
   A. apply mathematics to problems arising in everyday life, society, and the workplace;
   B. use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution;
   C. select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems;
   D. communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate;
   E. create and use representations to organize, record, and communicate mathematical ideas;
   F. analyze mathematical relationships to connect and communicate mathematical ideas; and
   G. display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.

2. Number and operations. The student applies mathematical process standards to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system related to place value. The student is expected to:
   A. recognize instantly the quantity of structured arrangements;
   B. use concrete and pictorial models to compose and decompose numbers up to 120 in more than one way as so many hundreds, so many tens, and so many ones;
   C. use objects, pictures, and expanded and standard forms to represent numbers up to 120;
   D. generate a number that is greater than or less than a given whole number up to 120;
   E. use place value to compare whole numbers up to 120 using comparative language;
   F. order whole numbers up to 120 using place value and open number lines; and
   G. represent the comparison of two numbers to 100 using the symbols >, <, or =.

3. Number and operations. The student applies mathematical process standards to develop and use strategies for whole number addition and subtraction computations in order to solve problems. The student is expected to:

A. use concrete and pictorial models to determine the sum of a multiple of 10 and a one-digit number in problems up to 99;

B. use objects and pictorial models to solve word problems involving joining, separating, and comparing sets within 20 and unknowns as any one of the terms in the problem such as 2 + 4 = [ ]; 3 + [ ] = 7; and 5 = [ ] – 3;

C. compose 10 with two or more addends with and without concrete objects;

D. apply basic fact strategies to add and subtract within 20, including making 10 and decomposing a number leading to a 10;

E. explain strategies used to solve addition and subtraction problems up to 20 using spoken words, objects, pictorial models, and number sentences; and

F. generate and solve problem situations when given a number sentence involving addition or subtraction of numbers within 20.

4. Number and operations. The student applies mathematical process standards to identify coins, their values, and the relationships among them in order to recognize the need for monetary transactions. The student is expected to:

A. identify U.S. coins, including pennies, nickels, dimes, and quarters, by value and describe the relationships among them;

B. write a number with the cent symbol to describe the value of a coin; and

C. use relationships to count by twos, fives, and tens to determine the value of a collection of pennies, nickels, and/or dimes.

5. Algebraic reasoning. The student applies mathematical process standards to identify and apply number patterns within properties of numbers and operations in order to describe relationships. The student is expected to:

B. skip count by twos, fives, and tens to determine the total number of objects up to 120 in a set;

D. represent word problems involving addition and subtraction of whole numbers up to 20 using concrete and pictorial models and number sentences;

E. understand that the equal sign represents a relationship where expressions on each side of the equal sign represent the same value(s);

G. apply properties of operations to add and subtract two or three numbers.

Source: The provisions of this §111.3 adopted to be effective September 10, 2012, 37 TexReg 7109.

Higher-Order Thinking Skills

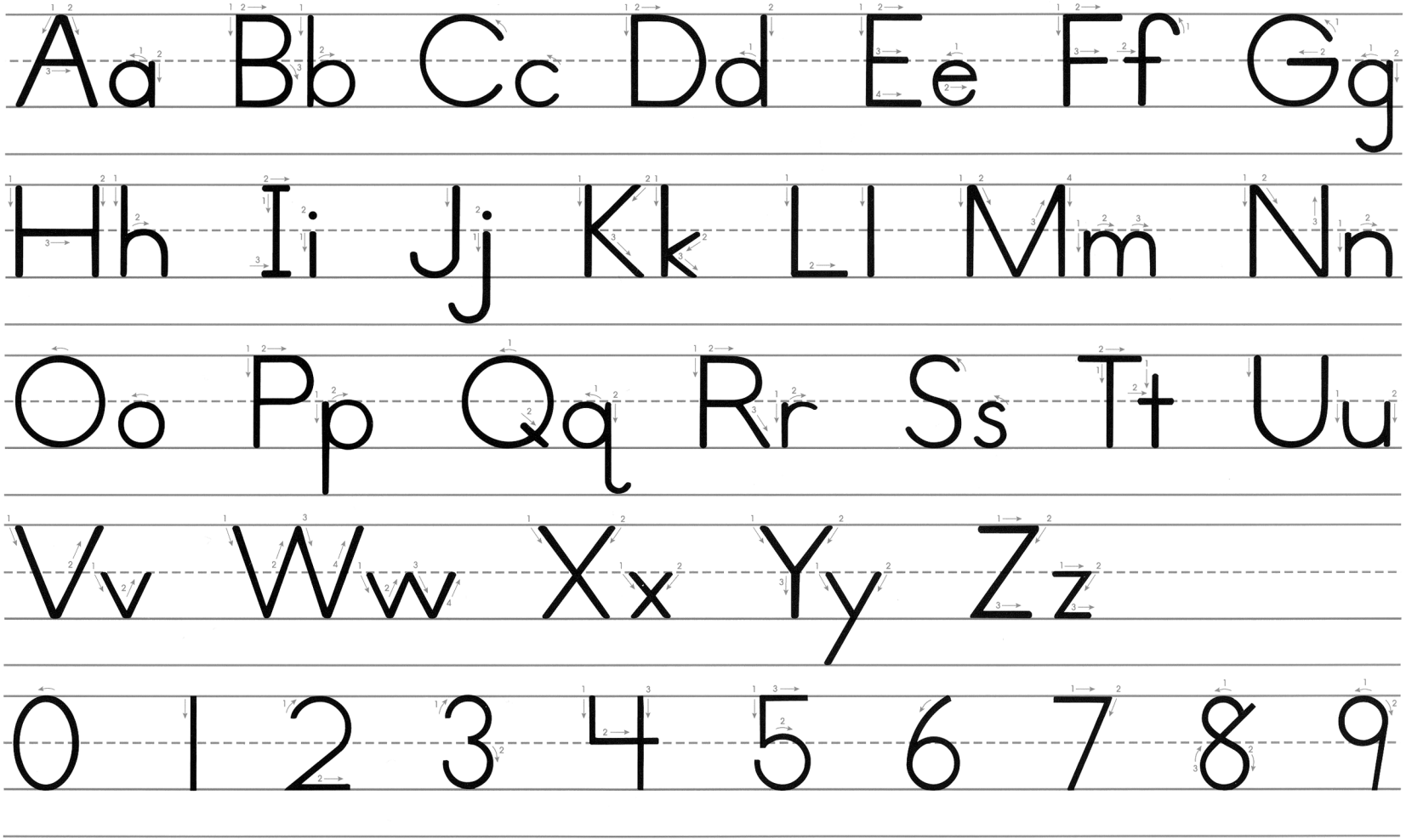
Throughout the lessons, you will find H.O.T. Problems that extend and require higher-order thinking skills. These problems require students to analyze, synthesize, and evaluate the information, steps, and solution. When students analyze, they examine and break down the

information into parts. When students synthesize, they compile information in a different way and find a new solution. When they evaluate, they justify the information. The H.O.T. Problems give your student the opportunity to take their learning to higher levels and learn at a deeper level.

Handwriting

Handwriting is taught in the Language Arts course. However, good handwriting skills are necessary in all subjects including math. In Kindergarten, Grade 1, and Grade 2, manuscript is the preferred technique. When teaching your child handwriting, please consider the appropriate letter formation and spacing. Please refer to the manuscript chart included on the next page to assist you in appropriately teaching your child handwriting. Please reinforce the importance of good handwriting in all subject areas.

Traditional Manuscript



Books and Materials for MATH 1 this Semester

Textbook

You are required to purchase the digital textbook in order to access all lesson materials. Purchase of the print textbook is strongly suggested, as well.

- Digital: *Texas Go Math!* (2015). Houghton Mifflin Harcourt. ISBN 978-0-544-36497-4
- Print: *Texas Go Math! Volumes 1-2* (2015). Houghton Mifflin Harcourt. ISBN 978-0-544-13972-5

Other Books (Optional)

These books can be purchased from any book vendor or borrowed from your public library.

Unit 1

- *City by Numbers* by Stephen Johnson
- *Chicka Chicka 123* by Bill Martin
- *Let's Count to 100!* by Masayuki Sebe
- *Number Rhymes Tens and Teens* by Opal Dunn
- *Toasty Toes: Counting by Tens* by Michael Dahl
- *Tail Feather Fun: Counting by Ten*s by Michael Dahl
- *Reese's Pieces Count by Tens* by Jerry Pallotta
- *Earth Day Hooray* by Stuart Murphy
- *Math Fables: Lessons that Count* by Greg Tang
- *One Hundred Hungry Ants* by Elinor Pinczes
- *One Hundred Shoes: A Math Reader* by Charles Ghigna
- *Alfie the Alligator: A Teaching Rhyme about Comparing Numbers* by Sandy Turley
- *More or Less (MathStart 2)* by Stuart Murphy
- *A Fair Bear Share (MathStart 2)* by Stuart Murphy
- *One is a Snail, Ten is a Crab* by A. & J. Sayre and Randy Cecil
- *365 Penguins* by Jean Luc Fromental

Unit 2

- *Animals on Board* by Stuart Murphy
- *The Mission of Addition* by Brian Cleary and Brian Gable

- *Mission: Addition* by Loreen Leedy
- *Zero the Hero* by Joan Holub
- *12 Ways to Get to 11* by Eve Merriam
- *Quack and Count* by Keith Baker
- *Ten for Me* by Barbara Mariconda
- *Ten Flashing Fireflies* by Philemon Sturges
- *Ten Sly Piranhas* by William Wise
- *Monster Musical Chairs* by Stuart Murphy
- *Monster Knows More Than, Less Than* by Lori Capote
- *More, Fewer, Less* by Tana Hoban
- *Five Little Monkeys Jumping on the Bed* by Eileen Christelow
- *If You Were a Minus Sign* by Speed Shaskin
- *Subtraction Action* by Loreen Leedy
- *Safari Park* by Stuart Murphy
- *Double Play: Monkeying Around with Addition* by Betsy Franco
- *Two of Everything* by Lily Toy Hong
- *Double the Ducks* by Stuart Murphy
- *Doubles Those Wheels* by Nancy Raines Day

Unit 3

- *Monster Musical Chairs* by Stuart Murphy
- *Elevator Magic* by Stuart Murphy
- *Ten Sly Piranhas* by William Wise
- *Hershey Kisses Subtraction* by Jerry Pallotta
- *Jack the Builder* by Stuart Murphy
- *Ten Black Dots* by Donald Crews
- *Ten Flashing Fireflies* by Philemon Sturges
- *The Mission of Addition* by Brian Cleary and Brian Gable
- *Mission: Addition* by Loreen Leedy
- *The Action Subtraction* by Brian Cleary
- *Subtraction Action* by Loreen Leedy
- *Pennies (Welcome Books: Money Matters)* by Mary Hill
- *Nickels (Welcome Books: Money Matters)* by Mary Hill
- *Dimes (Welcome Books: Money Matters)* by Mary Hill

- *One Cent, Two Cents, Old Cent, New Cent* by Bonnie Worth
- *The Penny Pot* by Stuart Murphy
- *Deena's Lucky Penny* by Barbara Derubertis
- *Quarters (Welcome Books: Money Matters)* by Mary Hill
- *A Dollar for Penny* by Julie Glass

Required Materials

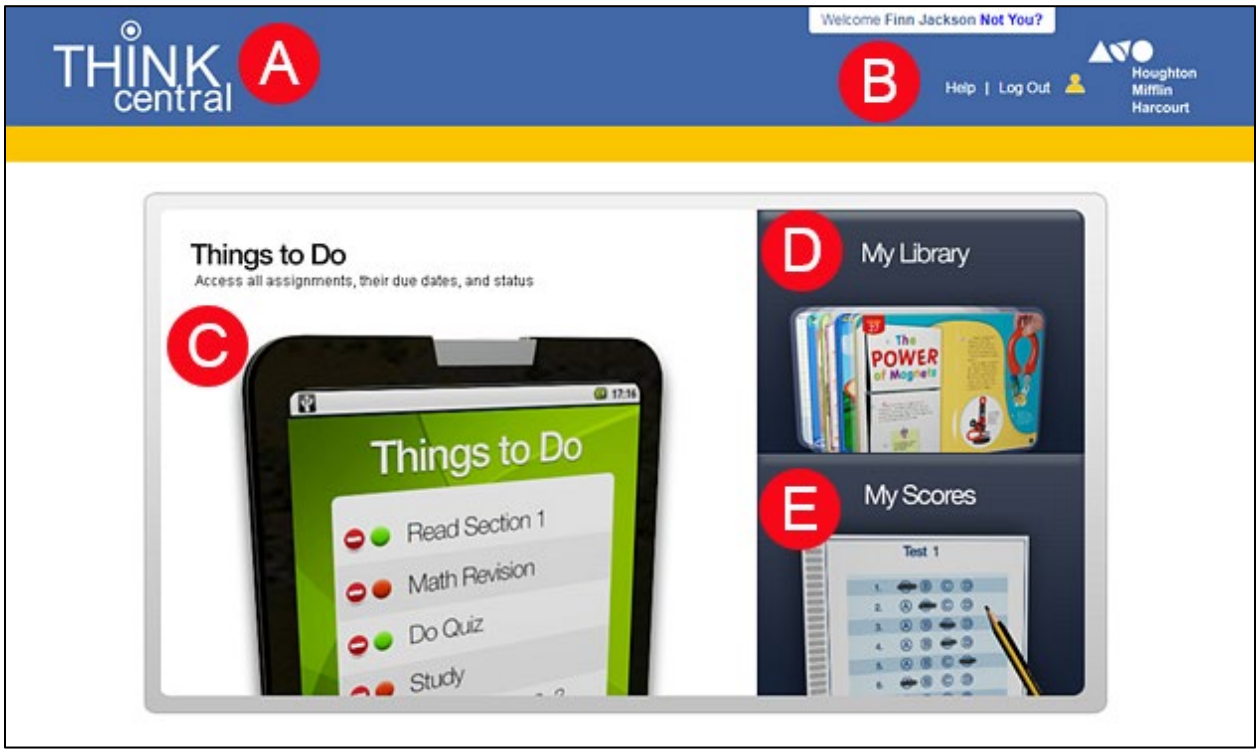
- base-ten blocks: 1 hundred, 10 tens, 10 ones
- brass fastener
- colored jewel rocks, 2 different colors, at least 20 of each color
- connecting cubes, 100: red, yellow, green, blue, and orange
- craft sticks, 2
- crayons (including red, yellow, blue, purple, orange, gray or silver, and brown)
- cups, small clear plastic, 10
- dice, 3
- dominoes
- dry erase board and markers
- glue or glue stick
- gold coin or something similar
- index cards, 3" × 5"
- magnetic or plastic letters
- marker, black, permanent
- bag, opaque
- paper: drawing (optional), plain white
- pencils
- pennies (at least 25), nickels, dimes, and quarters (real or play)
- plastic bags, 8 small
- playing cards, 1 deck
- scissors
- sticky notes
- toys or other small objects
- two-color counters: red and yellow
- wide-ruled spiral notebook or three-ring binder and lined notebook paper

Online Resources

Navigate ThinkCentral

To move around in *ThinkCentral*:

➔ Click one of the areas on the *ThinkCentral* home page to open that page: **Things to Do**, **My Library**, or **My Scores**.

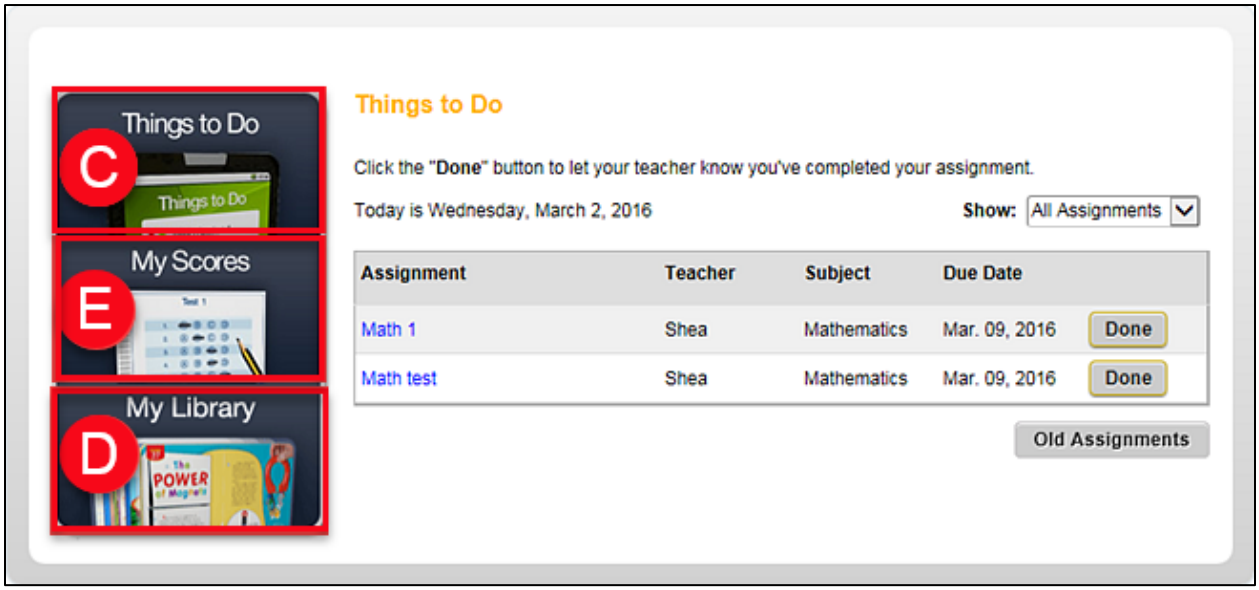


Descriptions of each area is provided in the following table.

Area	Area Name	Description
A	***ThinkCentral* logo**	Returns you to the *ThinkCentral* home page.
B	**Banner Links**	• **Help** – Opens an online help system that provides detailed instructions for ThinkCentral tasks. • **Log Out** – Logs you out of ThinkCentral.

Area	Area Name	Description
		• Account linking icon – If you have more than one account (accounts in more than one school or more than one class), this allows you to select and open another account.
C	**Things to Do**	Opens the **Things to Do** page, which lists all of the tests and assignments your teacher has assigned to you. You can even find your old assignments after you are done with them.
D	**My Library**	Opens the **My Library** page, where you can find all of your online classroom resources, such as books, movies, sound files, worksheets, and more.
E	**My Scores**	Opens the **My Scores** page, which lists the scores that you received on tests and assignments that you have taken. If your teacher has written a comment on your assignment, you can find it here. You can even look at your old tests to see how well you did on each question.

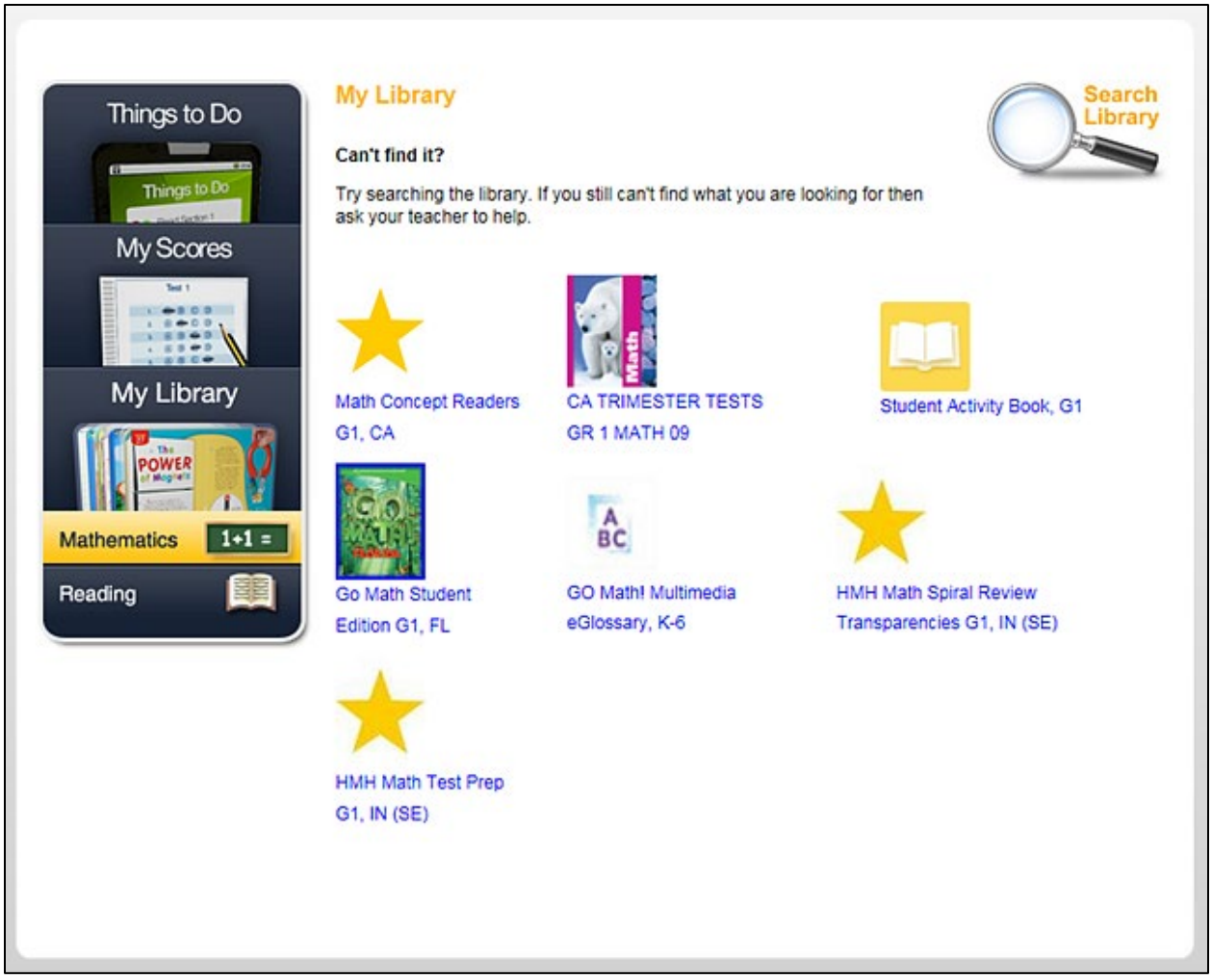
➔ Once you open a page, you can move to a different page by clicking the area with the page name on the left panel.



Using My Library

The **My Library** page lists all of the library items available to you, including online classroom books, movies, sound files, worksheets, and more.

➔ To open the **My Library** page, click **My Library** on the left panel.



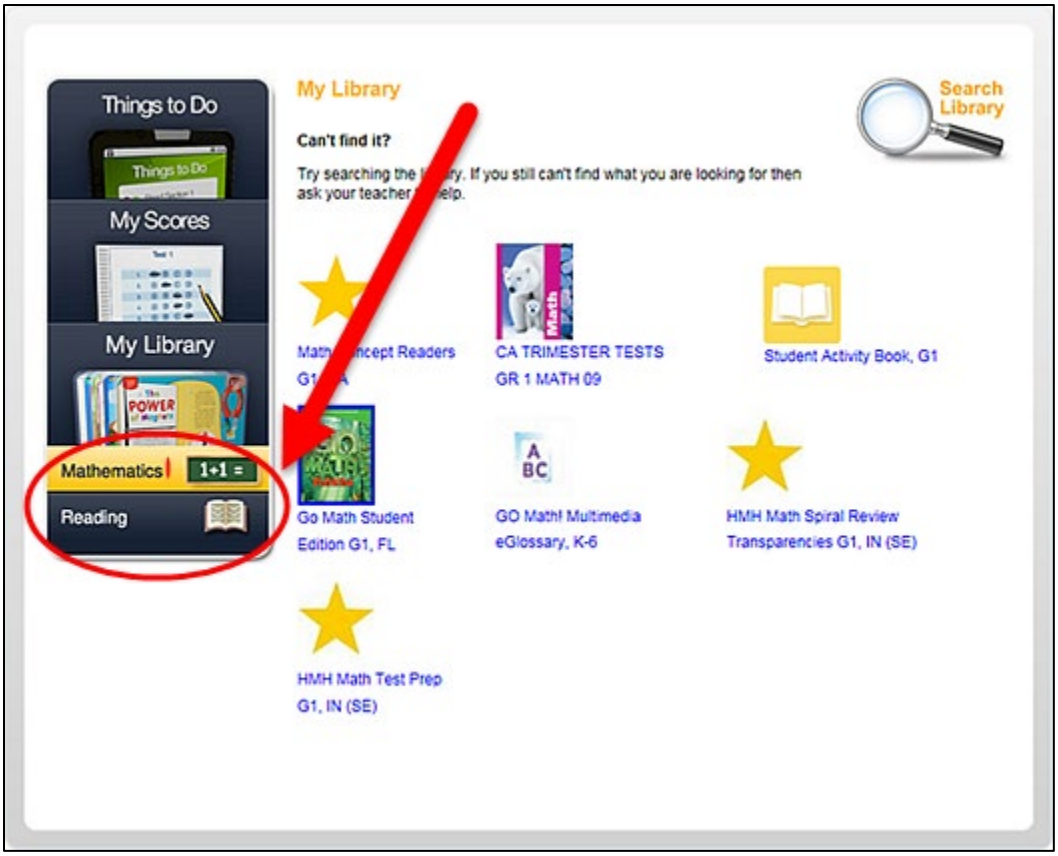
On the My Library page, you can do any of the following:

➔ Open a library item by clicking the item. The item opens in a separate window.

Note: When you close an item, the **My Library** page is still open.

➔ Filter the items that appear by clicking one of the subject buttons (e.g., Mathematics and Reading) located at the bottom of the left panel.

continued →



➔ Click **My Library** to see all of your items again.

➔ Click the **Search Library** magnifying glass. 

Search My Library

My Library lists all of the library items that are available to you. You can search for a specific library item using the **Search Library** option.

To search My Library:

1. In **My Library**, click the **Search Library** magnifying glass. 

The **Search Library** page appears.

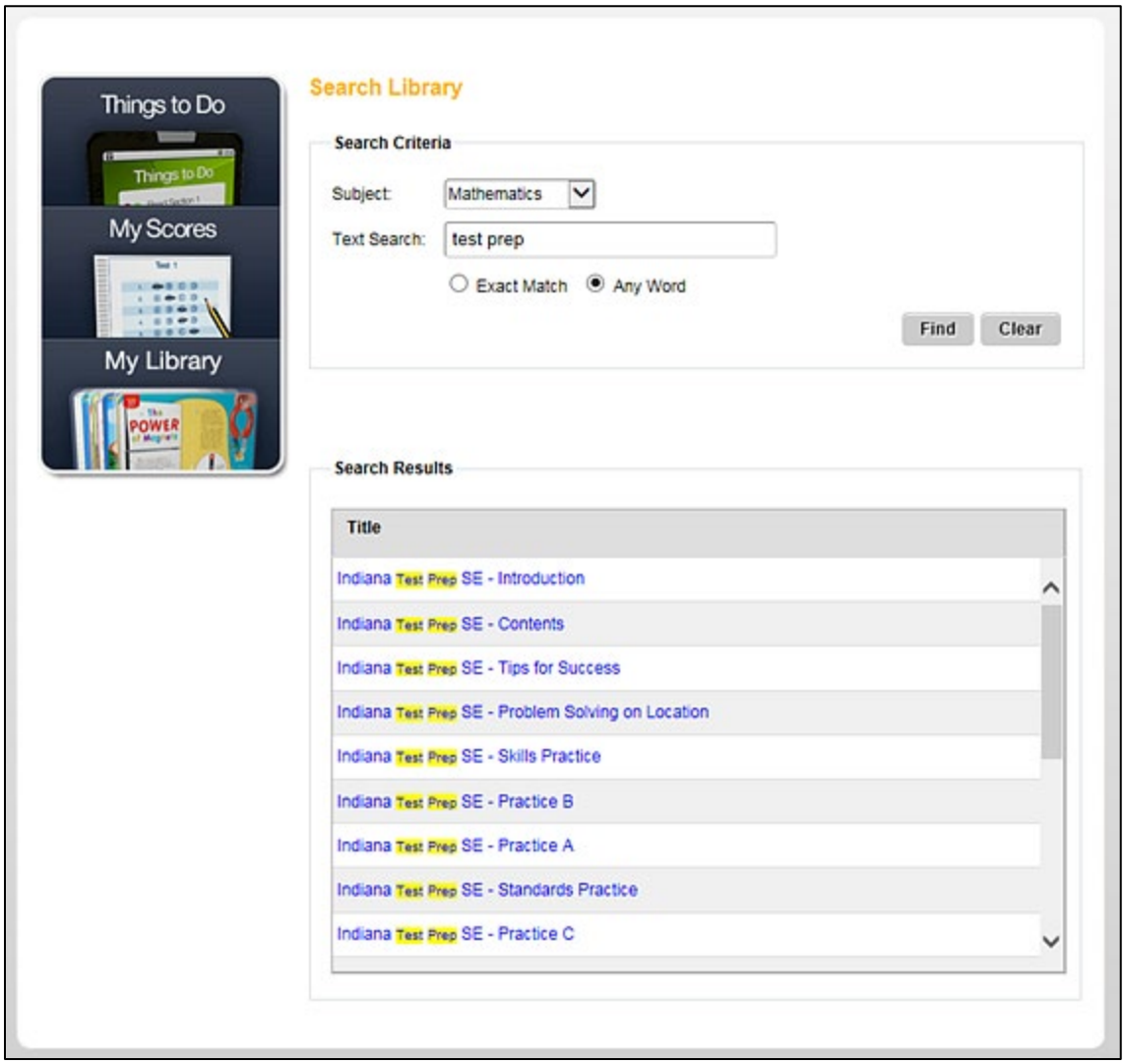
   You can search for a library item by subject, by words, or by both subject and words.

2. In the **Subject** list, select the subject of the item.

3. In the **Text Search** box, type a word or words that identify the item.

Note: To empty the **Search Criteria** area and start a new search, click **Clear**.

4. Click **Find**. The items that match your search filters are listed in the **Search Results** area.



5. To open an item in the list, click the name of the item. The item opens in a separate window.
6. To return to **My Library**, click **My Library** on the left side of the page.

Grading Procedures and Unit Assignment Checklists

Grades are calculated for Unit 1, Unit 2, and Unit 3. The semester grade is an average of the three unit grades. The unit grades will include a test for each unit. Unit Tests 1 and 2 are located in their respective Unit folders in this online course; the Unit 3 Test is in the Final Exam folder.

The Unit assessments will be uploaded to Texas Tech University K-12 to be graded. After the student has finished each test, scan or take digital photographs of the assigned pages showing his or her work. Combine the images into a ***single* PDF** (see "Requirements for Creating PDFs" on the course home page). When you save the document, use the naming convention given for each Unit Test as the name of your file. Upload the file according to the instructions given in the assignment.

Schedule for tests

Unit 1, Day 25

- Unit 1 Test

Unit 2, Day 50

- Unit 2 Test

Unit 3, Day 75

- Unit 3 Test (Final Exam)