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.

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:
   - 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;

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:
   A. recite numbers forward and backward from any given number between 1 and 120;
   B. skip count by twos, fives, and tens to determine the total number of objects up to 120 in a set;
   C. use relationships to determine the number that is 10 more and 10 less than a given number up to 120;
   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);
   F. determine the unknown whole number in an addition or subtraction equation when the unknown may be any one of the three or four terms in the equation; and
   G. apply properties of operations to add and subtract two or three numbers.

6. Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional shapes and three-dimensional solids to develop generalizations about their properties. The student is expected to:
   A. classify and sort regular and irregular two-dimensional shapes based on attributes using informal geometric language;
   B. distinguish between attributes that define a two-dimensional or three-dimensional figure and attributes that do not define the shape;
   C. create two-dimensional figures, including circles, triangles, rectangles, and squares, as special rectangles, rhombuses, and hexagons;
   D. identify two-dimensional shapes, including circles, triangles, rectangles, and squares, as special rectangles, rhombuses, and hexagons and describe their attributes using formal geometric language;
   E. identify three-dimensional solids, including spheres, cones, cylinders, rectangular prisms (including cubes), and triangular prisms, and describe their attributes using formal geometric language;
   F. compose two-dimensional shapes by joining two, three, or four figures to produce a target shape in more than one way if possible;
   G. partition two-dimensional figures into two and four fair shares or equal parts and describe the parts using words; and
   H. identify examples and non-examples of halves and fourths.

7. Geometry and measurement. The student applies mathematical process standards to select and use units to describe length and time. The student is expected to:

A. use measuring tools to measure the length of objects to reinforce the continuous nature of linear measurement;

B. illustrate that the length of an object is the number of same-size units of length that, when laid end-to-end with no gaps or overlaps, reach from one end of the object to the other;

C. measure the same object/distance with units of two different lengths and describe how and why the measurements differ;

D. describe a length to the nearest whole unit using a number and a unit; and

E. tell time to the hour and half hour using analog and digital clocks.

8. Data analysis. The student applies mathematical process standards to organize data to make it useful for interpreting information and solving problems. The student is expected to:

A. collect, sort, and organize data in up to three categories using models/representations such as tally marks or T-charts;

B. use data to create picture and bar-type graphs; and

C. draw conclusions and generate and answer questions using information from picture and bar-type graphs.

9. Personal financial literacy. The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security. The student is expected to:

A. define money earned as income;

B. identify income as a means of obtaining goods and services, oftentimes making choices between wants and needs;

C. distinguish between spending and saving; and

D. consider charitable giving.

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

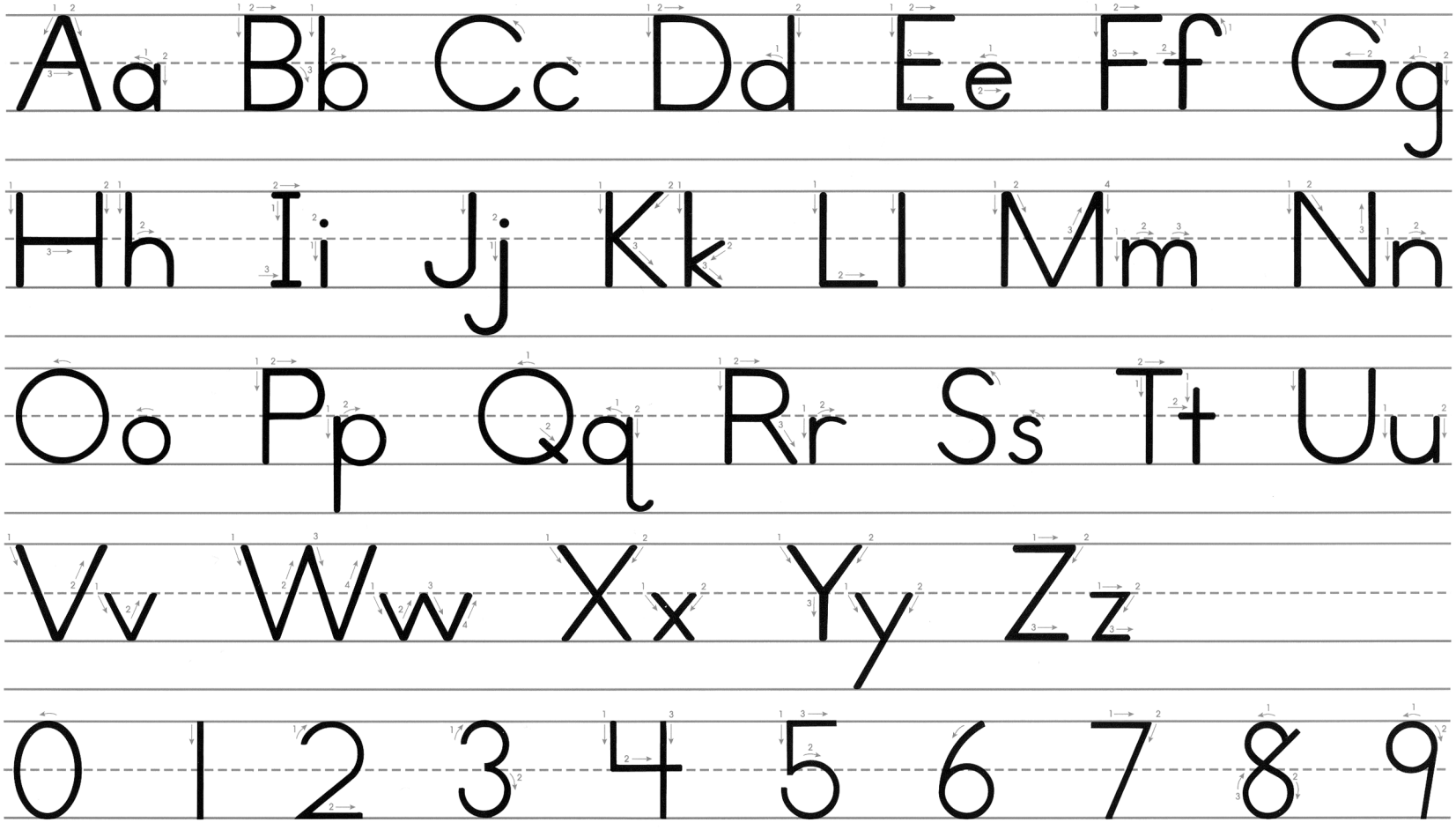
Higher-Order Thinking Skills

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 Mathematics 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 4

- *Number Rhymes Tens and Teens* by Opal Dunn
- *A Fair Bear Share (MathStart 2)* by Stuart Murphy
- *From One to One Hundred* by Teri Sloat
- *M & M's Count to One Hundred Book* by Barbara McGrath
- *Penguin Pairs: Counting by 2s (Count the Critters)* by Amanda Doering Tourville
- *Two of Everything* by Lily Toy Hong
- *Skip Counting with Meerkats (Animal Math)* by Tracey Steffora
- *Eggs and Legs: Counting by 2s (Know Your Numbers)* by Michael Dahl
- *Lots of Ladybugs: Counting by Fives (Know Your Numbers)* by Michael Dahl
- *Hands Down: Counting by Fives (Know Your Numbers)* by Michael Dahl
- *Reese's Pieces Count by Fives* by Jerry Pallotta
- *Arctic Fives Arrive* by Elinor Pinczes
- *Toasty Toes: Counting by Tens (Know Your Numbers)* by Michael Dahl
- *Tail Feather Fun: Counting by Tens (Know Your Numbers)* by Michael Dahl
- *Bunches of Buttons: Counting by Tens (Know Your Numbers)* by Michael Dahl
- *Math for All Seasons* by Greg Tang
- *1 + 1 = 5 and Other Unlikely Additions* by David LaRochelle
- *The Mission of Addition* by Brian Cleary
- *Elevator Magic (MathStart)* by Stuart Murphy

- *Hershey's Kisses Subtraction Book* by Jerry Pallotta
- *Subtraction Action* by Loreen Leedy

Unit 5

- *Shapes, Shapes, Shapes* by Tana Hoban
- *Cubes, Cones, Cylinders, & Spheres* by Tana Hoban
- *When a Line Bends… A Shape Begins* by Rhoda Gowler Green
- *Shape by Shape* by Suse MacDonald
- *The Greedy Triangle* by Marilyn Burns and Gordon Silveria
- *Not a Box* by Antoinette Portis
- *Icky Bug Shapes* by Jerry Pallotta
- *Windows, Rings & Grapes—A Look at Different Shapes* by Brian Cleary
- *The Shape of Things* by Dayle Ann Dodds
- *Captain Invincible and the Space Shapes (MathStart 2)* by Stuart J. Murphy
- *How Big is a Foot* by Rolf Myller
- *Length (Math Counts)* by Henry Pluckrose
- *Keep Your Distance (Math Matters)* by Gail Herman (Kane Press Paperback)

Unit 6

- *It's About Time (a MathStart Series Book)* by Stuart Murphy
- *Telling Time* by Jules Older
- *What Time is it Mr. Crocodile?* by Judy Sierra
- *The Grouchy Ladybug* by Eric Carle
- *Game Time!* By Stuart Murphy
- *A Second is a Hiccup* by Hazel Hutchings
- *Tally O'Malley* by Stuart Murphy and Cynthia Jabar
- *Tally Cat Keeps Track* by Trudy Harris
- *Lemonade for Sale* by Stuart Murphy
- *The Best Vacation Ever (MathStart2)* by Stuart Murphy
- *The Great Graph Contest* by Loreen Leedy
- *Tiger Math: Learning to Graph from a Baby Tiger* by Ann Whitehead Nagda and Cindy Bickel
- *Alexander, Who Used to Be Rich Last Sunday* by Judith Viorst
- *Something Good* by Robert Munsch
- *The Money We'll Save* by Brock Cole
- *Those Shoes* by Maribeth Boelts

- *Lemonade in Winter* by Emily Jenkins and G. Brian Karas
- *Rock, Brock, and the Savings Shock* by Sheila Bair
- *Uncle Willie and the Soup Kitchen (Reading Rainbow Book)* by Dyanne Disalvo-Ryan
- *Maddi's Fridge* by Lois Brandt
- *The Mitten Tree* by Candace Christiansen

Required Materials

- 2-dimensional foods:
  - ◊ crackers
  - ◊ chips
  - ◊ slices of meat
  - ◊ slices of cheese
  - ◊ cereals
  - ◊ graham crackers
- 3-dimensional foods:
  - ◊ pretzel sticks
  - ◊ marshmallows
  - ◊ any candy that is a sphere, cube, cylinder, etc.
  - ◊ cheese cubes or sticks
  - ◊ desserts
- 3-dimensional shapes
- attribute blocks
- base-ten blocks
- brass fasteners or paper clips, 3
- clocks: digital and analog or Judy clock
- color tiles
- connecting cubes, 50: red, green, blue, yellow
- construction paper
- counters, 3 different kinds (beans, connecting cubes, counters, etc.)
- craft sticks
- crayons, short and long
- cup, small
- dice, 2
- Do-a-Dot Art!® markers

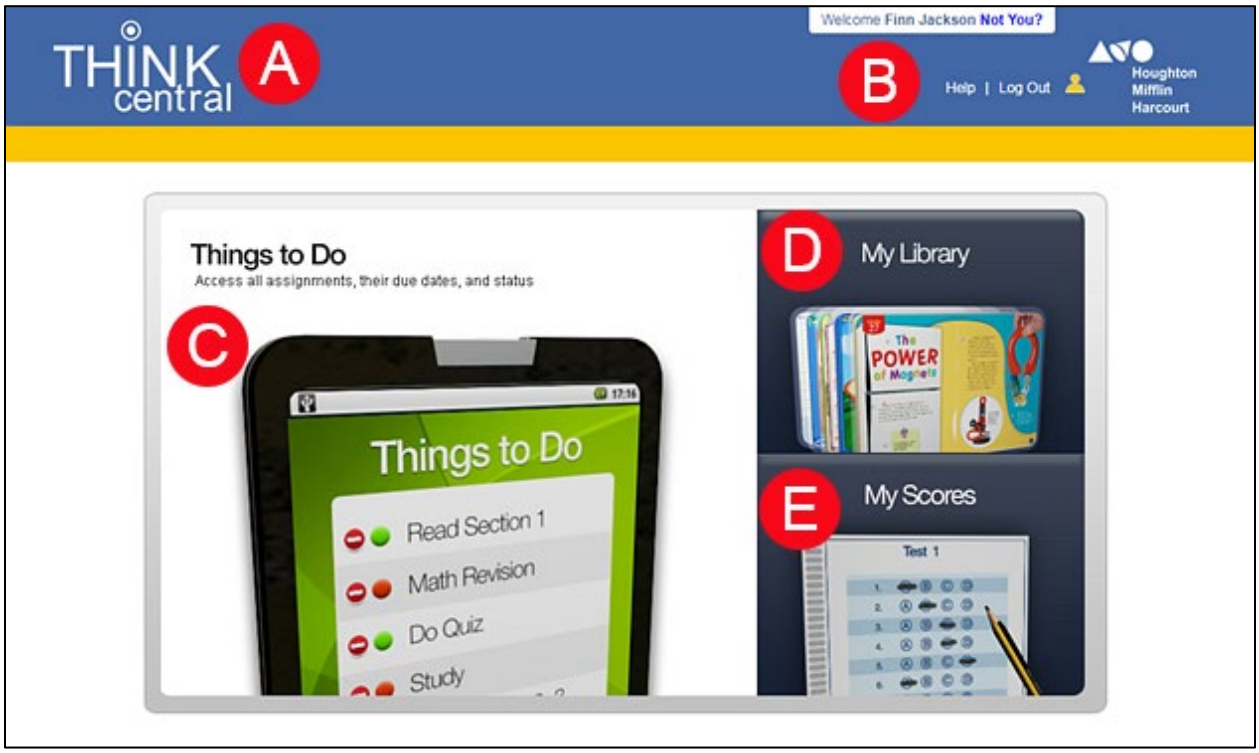
- dry erase board and markers
- folder and book for measuring
- glue
- index cards, 3” × 5”
- jar or bank
- magazines
- marker, permanent
- marshmallows
- masking tape
- objects from around the house for measuring
- objects to sort (crayons, socks, marbles, blocks, etc.)
- package of M&Ms® or Skittles®
- paper
- paper clips, large and small
- paper or cloth bag (not clear plastic)
- paper plate
- pattern blocks
- pencils
- plastic bags, small resealable, 3
- Play-Doh®
- poster boards, 3
- real or play money: pennies, nickels, dimes, quarters
- scissors
- sidewalk chalk
- string or yarn
- tape
- tissue box
- toothpicks
- two-color counters, 120
- units of measure, nonstandard, 2-4 different kinds
- 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**.

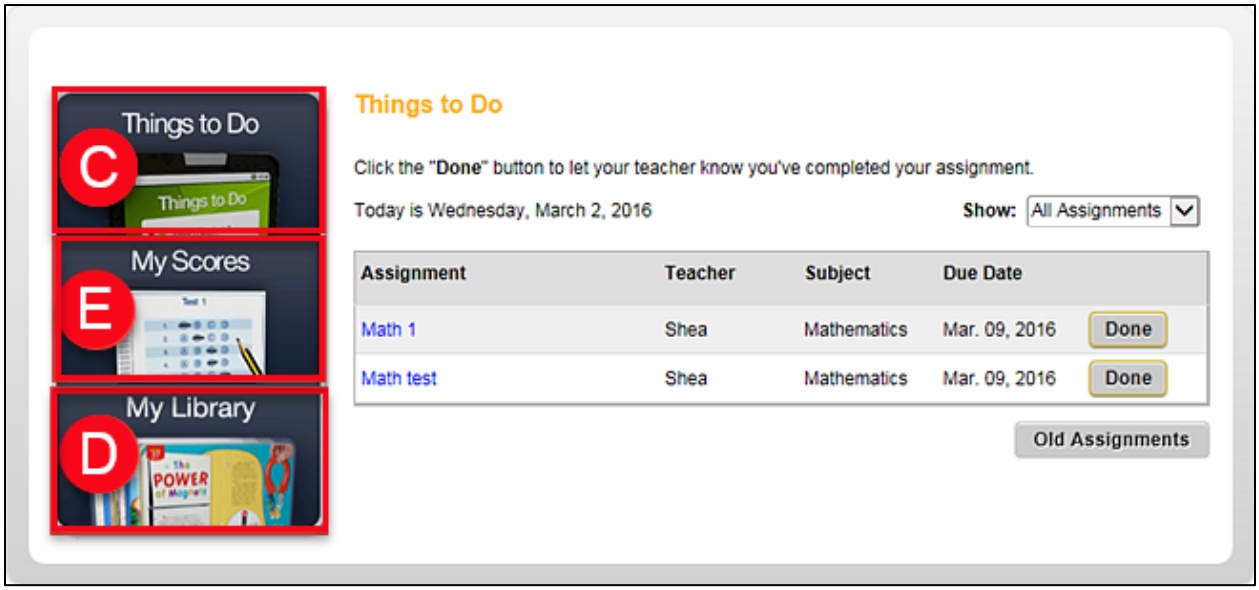


Descriptions of each area is provided in the following table.

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.

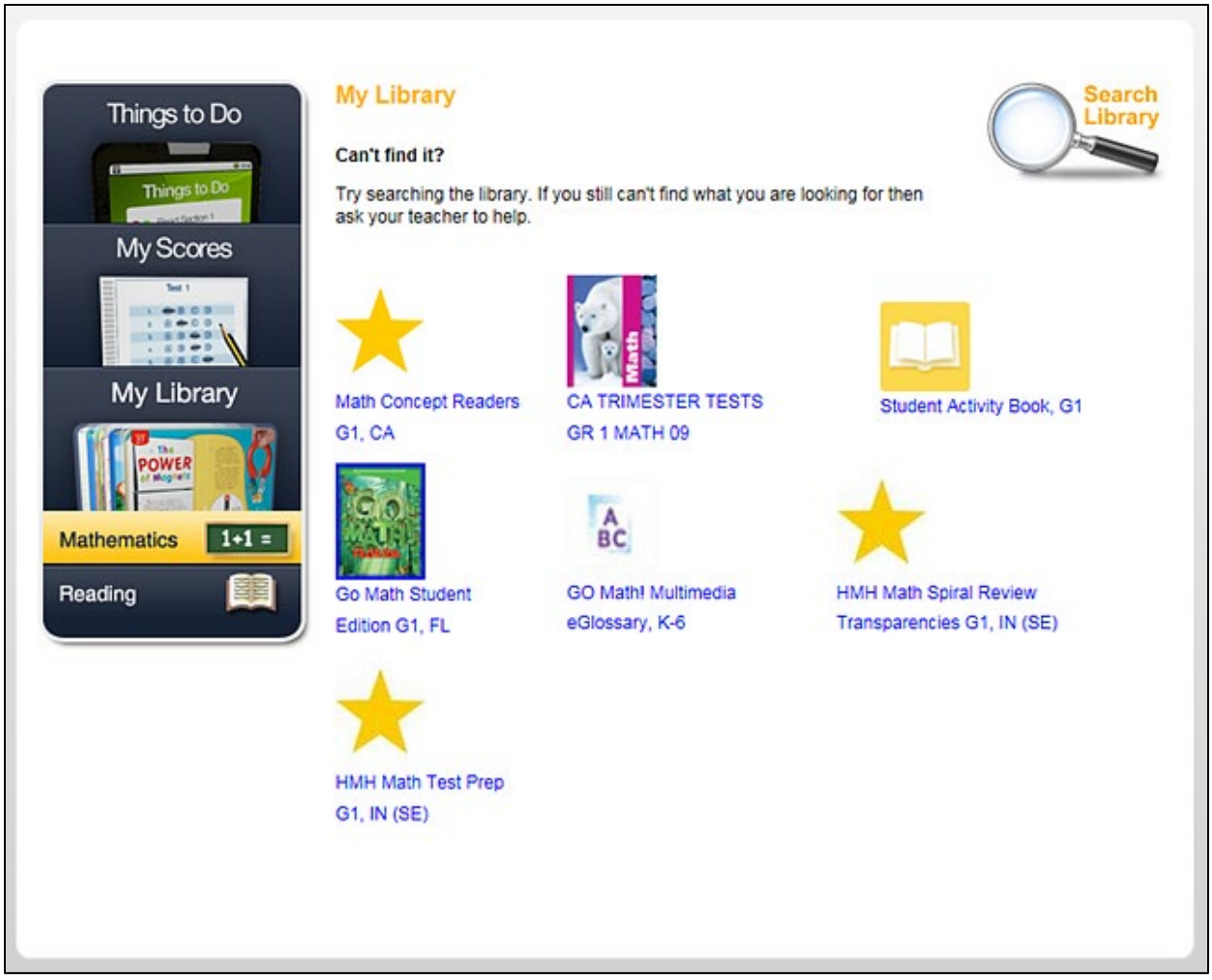
➔ Once you open a page, you can move to a different page by clicking the area with the page name on the left panel.



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.



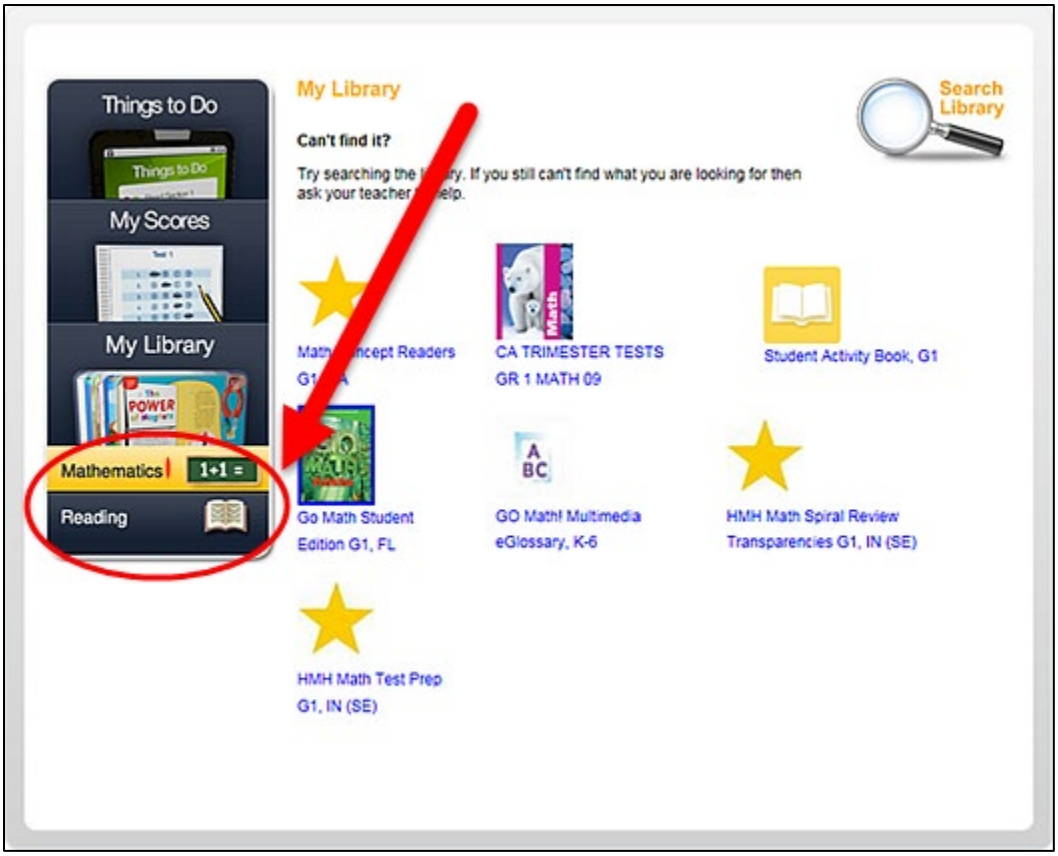
On the My Library page, you can do any of the following:

➔ 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.

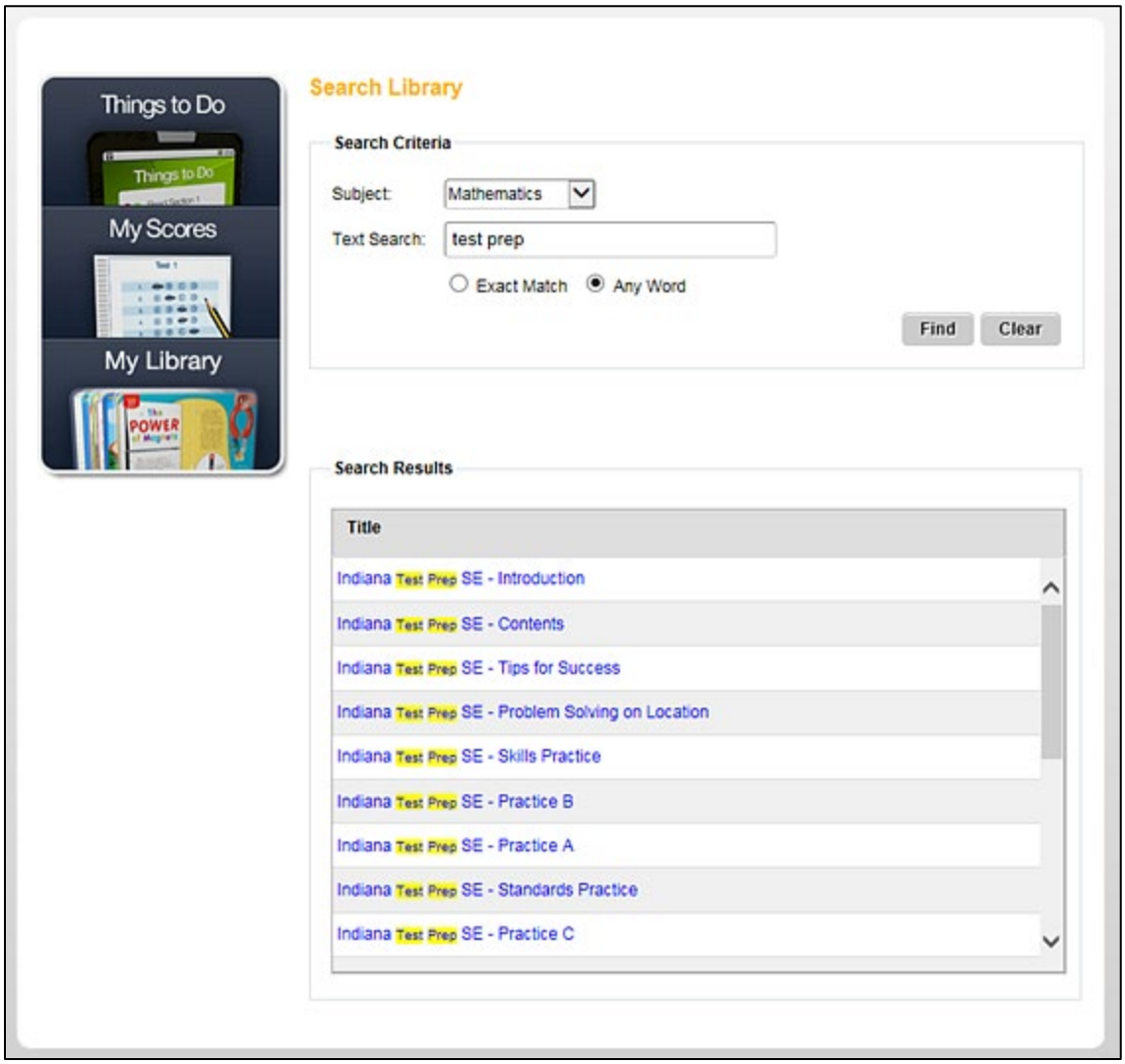
   You can search for a library item by subject, by words, or by both subject and words.

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 4, Unit 5, and Unit 6. The semester grade is an average of the three unit grades. The unit grades will include a test for each unit. Unit Tests 4 and 5 are located in their respective Unit folders in this online course; the Unit 6 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 4, Day 100

- Unit 4 Test

Unit 5, Day 125

- Unit 5 Test

Unit 6, Day 150

- Unit 6 Test (Final Exam)