For more than two decades, we have helped you achieve student success on Texas tests by providing the highest quality test-prep materials. With STAAR MASTER®, we continue our commitment to create research-based content that engages students and makes teaching easier.
Increased rigor and challenging topics require students to use higher-order thinking skills!

**STAAR MASTER® Student Practice Books**
- Large volume of practice items helps the teacher easily address all STAAR-eligible TEKS
- Provide students with repeated practice in a variety of contexts
- Help students build test-taking confidence

**STAAR MASTER® Practice Tests**
- Cover all STAAR-eligible standards between Form A and Form B
- Mirror STAAR blueprint to provide the most authentic practice possible
- Help reduce test anxiety by familiarizing students with STAAR test format

**STAAR MASTER® Companion Work Texts**
- Organized into easy-to-use lessons to accommodate small or large groups
- Provide activities to use before, during, and after each unit is taught
- Include open-ended items as alternatives to multiple choice

**STAAR MASTER® Companion Quick Checks** (available for Reading only)
- Simulate STAAR format to build students’ test-taking confidence
- Short, “quick” exercises allow teachers to easily identify students’ areas of weakness
- Reinforce skills covered in STAAR MASTER Companion Work Texts for added practice

**STAAR MASTER® Quick Review** (available for Math only)
- Daily and weekly exercises organized by reporting category are easy-to-use
- Provide multiple-choice and griddable items to mirror STAAR format
- Appealing layout to engage students

Order today at ecslearningsystems.com.
800.688.3224 • customercare@ecslearningsystems.com
Reading • Mathematics • Writing • Social Studies • Science

English and Spanish versions

Credible

Same ECS quality
• based on most recent eligible TEKS and STAAR® test blueprints
• practice items marked with complexity level (L, M, or H)
• questions labeled with “skill tags”

Authentic

Reflects key characteristics of STAAR®
• increased rigor
• emphasis on readiness standards
• more open-ended (griddable) items (mathematics and science)
• assessment of process skills within context (mathematics, science, and social studies)

Fresh

Includes challenging, original content
• targeted practice in a variety of contexts
• range of topics to interest students
• clear and consistent page layout
• complete answer keys for teachers

ecslearningsystems.com

We make teaching easier!℠

ECS Learning Systems
P.O. Box 440 • Bulverde, TX 78163-0440
1.800.688.3224

STAAR MASTER® Student Practice Book—Mathematics, Grade 2 (Spanish Version)
Selected pages from

STAAR MASTER®

Student Practice Book
Mathematics, Grade 2
for the State of Texas Assessments
of Academic Readiness

Teacher Guide
Spanish Version
Translated by Dr. Francisco J. Perea

ECS Learning Systems


Copyright infringement is a violation of Federal Law.

©2018 by ECS Learning Systems, Bulverde, Texas. All rights reserved. No part of this publication may be reproduced, translated, stored in a retrieval system, or transmitted in any way or by any means (electronic, mechanical, photocopying, recording, or otherwise) without prior written permission from ECS Learning Systems.

Reproduction of any part of this publication for an entire school or for a school system, by for-profit institutions and tutoring centers, or for commercial sale is strictly prohibited.

Printed in the United States of America. STAAR MASTER is a registered trademark of ECS Learning Systems.

Disclaimer Statement

ECS Learning Systems recommends that the purchaser/user of this publication preview and use his/her own judgment when selecting lessons and activities. Please assess the appropriateness of the content and activities according to grade level and maturity of your students. The responsibility to adhere to safety standards and best professional practices is the duty of the teachers, students, and/or others who use the content of this publication. ECS Learning Systems is not responsible for any damage, to property or person, that results from the performance of the activities in this publication.

STAAR is a registered trademark of Texas Education Agency. STAAR MASTER and ECS Learning Systems are not affiliated with or sponsored by the Texas Education Agency or the State of Texas.

© ECS Learning Systems
Dear Texas Educator,

Since 1982, ECS Learning Systems has created quality K–12 teaching materials, training, and media. As a Texas-based publisher of the highest quality test-prep materials, we have always shared your commitment to lead your students to success on Texas tests—TEAMS, TAAS, TAKS, and now the STAAR®. With STAAR MASTER®, we continue our commitment to create research-based content that engages students and makes teaching easier.

The STAAR MASTER® series includes new, challenging content to prepare students for the rigor of the STAAR. It’s what you have come to expect from the most trusted source in Texas testing. Check our Web site often for the latest information at ecslearningsystems.com/staarmaster.

As you use STAAR MASTER® in your classroom, we hope to hear from you! Send us your story and let us know:

• Why you need our product(s)
• How you use them in your classroom
• What outcomes and results you are experiencing

At ECS, we strive to provide educators like you with easy-to-use and effective materials that make teaching easier. We count it as a privilege to have you as a customer, and we hope that our products continuously exceed your expectations.

Please let us know how well the STAAR MASTER® products worked in your classroom. Also, please spread the word—many of our new customers are referred by teachers like you.

Sincerely,

Your ECS Team

p.s. It’s easy to share your story! Visit our Re:Think blog at ecslearningsystems.com/blog and click the Re:Tell button.

Table of Contents

| Inside the Teacher Guide | 3 |
| Inside the Student Practice Book | 3 |
| Modifications for Grade 2 | 3 |
| Descriptions of STAAR MASTER® Complexity Levels | 5 |
| How to Use This Book | 6 |
| Quick Tips for Instruction | 6 |
| Mathematics Vocabulary | 7 |
| Vocabulary Strategies | 8 |
| Inside the Mathematics Classroom | 9 |
| Master Skills List | 14 |
| Answer Key | 16 |
| References | 19 |
ECS Learning Systems strives to provide the most complete, up-to-date, accurate materials for STAAR® (State of Texas Assessments of Academic Readiness) preparation. Many teachers have requested similar materials to use with students at grade levels not included in the state’s testing program. In response to these requests, ECS Learning Systems has developed this STAAR MASTER® Student Practice Book for Math, Grade 2.

Inside the Teacher Guide
This teacher guide includes the following information—
• an overview of the STAAR MASTER Student Practice Book
• descriptions of complexity levels assigned to practice items
• strategies/suggestions for mathematics instruction and test preparation
• a mathematics vocabulary list for the appropriate grade level
• a master list of standards and expectations from the Texas Essential Knowledge and Skills (TEKS) for Mathematics (adopted 2014), including mathematical process skills
• a complete answer key, with corresponding complexity levels for each practice item

Inside the Student Practice Book
The STAAR MASTER Student Practice Book provides practice and review material for the Grade 2 Mathematics TEKS. The following list includes some important features of the book.
• The practice items focus on the grade-specific content of the TEKS for Mathematics adopted in 2014, including mathematical process skills.
• Whenever possible, practice items reflect a “real-world” context, covering a broad range of topics and ideas of interest to students.
• Each exercise is labeled for easy identification of the TEKS category, standard, and expectation addressed in the practice items.
• Several exercises address the same standard/expectation, providing repeated practice for students in a variety of contexts.

Modifications for Grade 2
The math problems in the Student Practice Book are similar to the items that students encounter on the actual STAAR, beginning in Grade 3. However, writers have made important modifications based on the needs and skills of second-grade students. These modifications include—
• larger font size for ease of reading
• reduced number of answer choices
• simpler language for younger students
• generous use of visual cues for problems
• elimination of “griddable” response items

Items in each Student Practice Book address the standards and student expectations found within the categories for the grade level.
• Number and Operations
• Algebraic Reasoning
• Geometry and Measurement
• Data Analysis
• Personal Financial Literacy

The majority of items in the book also address the “Mathematical Process Standards” in the TEKS. Mastery of these standards and expectations is not reported under a separate category, but is incorporated into items throughout the other five categories.

Note: Each exercise in the student practice book focuses on only one student expectation, with one important exception. Each exercise related to personal financial literacy includes a mix of the grade-level student expectations for that standard. Many of the student expectations for this topic are narrow in scope (e.g., 2.11B: Explique que en lugar de gastar se puede ahorrar). For this reason, the editors found it difficult to include a variety of item types within each exercise. By including a mix of practice items for all the student expectations in each exercise, the editors believe students will find them more interesting and realistic. In addition, there is less chance that the correct answer to one item will “give away” the correct answer to another item on the same page.
**Skills Tags:** Each exercise includes a “skills tag” (see Figure 1) for easy identification of the TEKS-based standard and student expectation addressed in the exercise.

**Mathematical Process Standards:** The Mathematical Process Standards are not tested in isolation, nor do they appear in a separate category. Rather, these standards are incorporated into items based on content standards from the other five categories. Similarly, items in the student practice book require students to demonstrate understanding of these important mathematical processes within the context of each problem. When a practice item requires the application of a process skill, a tag identifies the process standard and expectation addressed (see Figure 2).

**Increased Rigor:** Many educators describe the STAAR® as “more rigorous” than previous state assessments, but what does rigor mean? Academic rigor is a measure of the cognitive demand required by a specific test item. In a rigorous system, standards, curriculum, instruction, and assessment tightly align with congruent measures of cognitive complexity. In a rigorous system, students must demonstrate a deep mastery of skills and understanding through rich, complex tasks. Students will definitely encounter problems that require higher levels of thinking than required on previous assessments. The student practice book includes items written at varying levels of complexity to reflect the kind of rigor students can expect on the actual test. Teachers should refer to “Depth of Knowledge” below for more information about the levels of complexity in practice items.

**Depth of Knowledge:** Norman Webb’s “depth-of-knowledge” model (2002a) is currently an influential alignment model in education. “Depth of knowledge” describes the degree of complexity required to solve a particular problem. Distinct cognitive demands occur at each level. Webb defines four levels of depth of knowledge: Level 1: Recall; Level 2: Skill or Concept; Level 3: Strategic Thinking; and Level 4: Extended Thinking.

Using a modified version of Webb’s depth-of-knowledge model (see page 5 of this teacher guide), we have aligned items in the STAAR® Student Practice Book to the TEKS. The complexity levels assigned to the items appear in the Answer Key.

---

**Figure 1: Exercise Skills Tag**

**Figure 2: Mathematical Process Standards**
Descriptions of STAAR MASTER® Complexity Levels

The following descriptions provide an overview of the three complexity levels used to align the STAAR MASTER® Student Practice Book items to the TEKS. Each explanation details the kinds of activities that occur within each level. However, they do not represent all of the possible thought processes for each level.

Low Complexity (L)
Low-complexity items align with the TEKS at Level 1 of the Webb (2002a) model. Items of low complexity involve recall and reproduction. Activities and problems at this level require routine, single-step methods. An item may ask students to recognize or restate a fact, definition, or term. For example, students may need to identify attributes of a geometric figure. Items of this complexity may require students to follow a basic procedure with clearly defined steps. At this cognitive level, students may need to apply a formula or perform a simple algorithm. Some major concepts represented at this level include arithmetic facts, perimeter, and converting units of measure. A low-complexity item may ask students to identify, recognize, use, or measure information and concepts.

Moderate Complexity (M)
Moderate-complexity items align with the TEKS at Level 2 of the Webb model. Items of moderate complexity involve both comprehension and the subsequent processing of information. Activities at this level demand more than one step in the reasoning process. Students are asked to determine how to best solve the problem. An item may ask students to generate a table of paired numbers based on a real-life situation. Items may involve using a model to solve a problem. At this cognitive level, students will need to visualize for tasks such as extending patterns and determining nonexamples. Items may involve interpreting information from a simple graph, table, or diagram. Some major concepts represented at this level include classifying geometric figures, determining probability, and using strategies to estimate.

High Complexity (H)
High-complexity items align with the TEKS at Level 3 and/or Level 4 of the Webb model. Items of high complexity require students to use strategic, multi-step thinking; develop a deeper understanding of the information; and extend thinking. The problems at this level are non-routine and more abstract. Students are asked to demonstrate more flexible thinking, apply prior knowledge; make and test conjectures, and support their responses. High-complexity items may require students to make generalizations from patterns. Items may involve interpreting information from a complex graph, table, or diagram. At this cognitive level, students will need to justify the reasonableness of a solution process when more than one solution exists. Students will use concepts to solve and explain problems, such as how changes in dimensions affect the volume of a figure. A high-complexity item may ask students to plan, reason, explain, compare, differentiate, draw conclusions, cite evidence, analyze, synthesize, apply, or prove. Some items also require students to apply low- and/or moderate-complexity skills and concepts.

Items of this complexity may ask students to classify, organize, observe, collect, display, or compare data. Some items also require students to apply low-complexity skills and concepts.

*Note: Although state standards may include expectations that require extended thinking, many large-scale assessment activities are not classified as Level 4. Performance and open-ended assessments may require activities at Level 4.
How to Use This Book

Effective Test Preparation: What is the most effective way to prepare students for any mathematics competency test? Experienced educators know that the best test preparation includes three critical components—

- a strong curriculum aligned with the content and skills to be assessed
- effective, relevant, and varied instructional methods that allow students to learn content and skills in many different ways
- targeted practice that familiarizes students with the specific content and format of the test

A strong curriculum and effective, relevant, varied instructional methods provide the foundation for all appropriate test preparation. Merely “teaching the test” performs a great disservice to students, who must acquire knowledge, practice skills, and have important educational experiences that can never be measured on tests limited by time and in scope. For this reason, resources like the STAAR MASTER® Student Practice Book should never become the heart of the curriculum or replace strong instructional methods.

Targeted Practice: The STAAR MASTER® Student Practice Book does address the final element of effective test preparation by providing meaningful targeted practice. This book familiarizes students with the general format of competency tests. When students are familiar with the format of a test, they know what to expect on the actual test. This, in turn, improves their chances for success.

Using STAAR MASTER® Products: When used as part of the regular curriculum, the STAAR MASTER® Student Practice Book allows teachers to—

- determine students’ areas of strength/weakness
- assess student performance at different complexity levels
- provide meaningful test-taking practice for students
- ease students’ test anxiety
- communicate test expectations to parents

Quick Tips for Instruction

Math teachers have myriad instructional strategies and materials available to them. The following ideas can serve as springboards for effective mathematics instruction. Teachers should use those that are appropriate for their students.

Group Work: Helen Keller once said, “Alone we can do so little; together we can do so much.” This is absolutely true in the mathematics classroom! Students who struggle when working alone often benefit by working with others. Students (and the teacher!) can work through selected practice exercises together, first noting what each problem involves. They should also note the range of problem-solving techniques found within a group. Group work also lets students discuss common errors and strategies for avoiding them.

Formulating Answers: Teachers should encourage students to formulate their own answers before they even look at available answer choices. For instance, students can treat every problem in an exercise as a “griddable question” and actually solve each problem before reading the answer choices. This approach discourages “guessing” an answer or an over-reliance on mental math since students read the answer choices only after finding the answers on their own.

Developing Fundamental Understanding: Teachers promote the recognition of “real-world” mathematics when they develop and use problems relevant to students’ daily experiences at school and at home. Working through “real” problems can also foster an understanding of the mathematics process standards.

Mathematics Vocabulary: Effective communication in mathematics requires the use of precise language (e.g., Adams, 2003; Harmon, Hedrick, & Wood, 2005). This includes understanding symbols, definitions, notations, and other developmentally appropriate language. A mathematics vocabulary list appears on page 7 of this teacher guide, and some simple vocabulary strategies appear on page 8. Most important, however, is that teachers use precise vocabulary when teaching mathematics. Students should know and be expected to use precise language, as well.

Math Manipulatives: The correct use of math manipulatives provides concrete stepping stones to understanding abstract concepts. Recommended math manipulatives and suggestions for their use appear on page 9 of this teacher guide.
**STAAR MASTER® Mathematics References**

*All Web sites listed were active at time of publication.*


---

**STAAR MASTER® Student Practice Book, Teacher Guide—Mathematics, Grade 2 (Spanish Version)**

© ECS Learning Systems 11
# Tabla del Contenido

<table>
<thead>
<tr>
<th>Capítulo</th>
<th>Página</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introducción</td>
<td>3</td>
</tr>
<tr>
<td>Tabla de matemáticas</td>
<td>4</td>
</tr>
<tr>
<td>Objetivo 1</td>
<td>5</td>
</tr>
<tr>
<td>Números y operaciones</td>
<td></td>
</tr>
<tr>
<td>Objetivo 2</td>
<td>59</td>
</tr>
<tr>
<td>Razonamiento algebraico</td>
<td></td>
</tr>
<tr>
<td>Objetivo 3</td>
<td>69</td>
</tr>
<tr>
<td>Geometría y medición</td>
<td></td>
</tr>
<tr>
<td>Objetivo 4</td>
<td>105</td>
</tr>
<tr>
<td>Análisis de daros</td>
<td></td>
</tr>
<tr>
<td>Objetivo 5</td>
<td>121</td>
</tr>
<tr>
<td>Comprensión de finanzas personales</td>
<td></td>
</tr>
<tr>
<td>Materiales de referencia</td>
<td>126</td>
</tr>
</tbody>
</table>

ECS Learning Systems  
P. O. Box 440  
Bulverde, TX 78163-0440  
ecslearningsystems.com  
1.800.688.3224 (t)  
1.877.688.3226 (f)  
customercare@ecslearningsystems.com
Objetivo 1
Números y operaciones

Ejercicio 20

2.3A: Separe objetos en partes iguales y nombre las partes, incluyendo mitades, cuartos y octavos

(2.1D; 2.1F)
1. ¿Cuál de las siguientes figuras muestra cinco octavos sombreados?
   - O A
   - O B
   - O C

(2.1D; 2.1F)
2. Mira la siguiente figura.
   ¿Qué parte de esta figura está sombreada?
   - O A Una mitad
   - O B Dos quintos
   - O C Tres quintos

(2.1D; 2.1F)
3. ¿Cuál de las siguientes figuras está dividida en mitades?
   - O A
   - O B
   - O C
Objetivo 1
Números y operaciones

Ejercicio 35

2.4B: Sume hasta cuatro números de dos dígitos y reste números de dos dígitos utilizando estrategias mentales y algoritmos basados en el conocimiento del valor de posición y en las propiedades de las operaciones

(2.1A; 2.1B; 2.1C)
1. Molly mide 48 pulgadas de altura. Su hermano mide 56 pulgadas de altura. ¿Cuánto más alto que Molly es su hermano?
   - A 4 pulgadas
   - B 8 pulgadas
   - C 18 pulgadas

(2.1A; 2.1B; 2.1C)
2. En receso, hay 94 estudiantes de segundo grado y 68 estudiantes de primer grado. ¿Cuántos más son los estudiantes de segundo grado que los de primer grado, en el receso?
   - A 18
   - B 26
   - C 34

(2.1A; 2.1B; 2.1C)
3. Un jugador lanzó la pelota de fútbol a 55 pies de distancia. Otro jugador lanzó la pelota a 72 pies de distancia. ¿Cuál fue la diferencia entre las distancias a las que cada jugador lanzó la pelota de fútbol?
   - A 127 pies
   - B 27 pies
   - C 17 pies

(2.1A; 2.1B; 2.1C; 2.1E)
4. Una escuela primaria tiene cuatro clases de segundo grado. La siguiente tabla muestra el número de estudiantes en cada clase.

<table>
<thead>
<tr>
<th>Clase</th>
<th>Número de estudiantes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>28</td>
</tr>
<tr>
<td>2</td>
<td>23</td>
</tr>
<tr>
<td>3</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>29</td>
</tr>
</tbody>
</table>

En total, ¿cuántos estudiantes de segundo grado asisten a la escuela?
   - A 80
   - B 90
   - C 100

(2.1A; 2.1B; 2.1C)
5. Un hospital tiene 37 enfermeras, 34 doctores y 17 trabajadores diversos. ¿Cuántas personas en total trabajan en el hospital?
   - A 78
   - B 84
   - C 88
Objetivo 2
Razonamiento algebraico

Ejercicio 3

2.7A: Determine si un número hasta el 40 es par o impar utilizando pares de objetos para representar el número.

(2.1E; 2.1F)

1. ¿Cuál de los siguientes NO muestra un número par?
   - A
   - B
   - C

(2.1E; 2.1F)

2. Mira las siguientes figuras.
   Las figuras muestran que 19 es un:
   - A número par
   - B número impar

(2.1E; 2.1F)

3. ¿Cuál de los siguientes representa un número impar?
   - A
   - B
   - C

(2.1E; 2.1F)

4. Mira las siguientes figuras.
   Las figuras muestran que 12 es un:
   - A número par
   - B número impar
Objetivo 5
Comprensión de finanzas personales

Ejercicio 2

2.11: El estudiante aplica los estándares de procesos matemáticos para manejar eficazmente sus propios recursos financieros para lograr una seguridad financiera de por vida (2.11A, 2.11B, 2.11C, 2.11D, 2.11E, 2.11F)

(2.1A; 2.1B; 2.1C; 2.11A)
1. Alice recibe 50 centavos de sus padres cada vez que hace una tarea. Alice siempre ahorra el dinero que gana. ¿Cuánto dinero ahorrará Alice si hace 3 tareas?
   - O A $0.50
   - O B $1.50
   - O C $3.00

(2.1A; 2.1F; 2.11E)
2. ¿Cuál de las siguientes operaciones es un ejemplo de préstamo?
   - O A La abuela de Gary le dio $10 en una tarjeta por su cumpleaños.
   - O B Lenny dio $10 a Lucy, que se los pagará después.
   - O C Martín le preguntó a su hermana si le daría $10.

(2.1A; 2.1F; 2.11C)
3. Kyle quiere retirar $50 de su cuenta de cheques. ¿Cuál de las siguientes operaciones describe correctamente el retiro de Kyle?
   - O A Kyle resta $50 de su balance.
   - O B Kyle pone $50 en su cuenta de cheques.
   - O C El balance de la cuenta bancaria de Kyle no cambia.

(2.1A; 2.11F)
4. Abe gana dinero en su puesto de limonadas. Él vende limonada usando limones que compró en la tienda de comestibles. En esta situación, Abe es un:
   - O A productor
   - O B consumidor
   - O C productor y consumidor
Thousands of Texas teachers love the STAAR MASTER® series...

...and here’s what a few of them are saying!

“Last year was my first year teaching. It’s easy to become overwhelmed with the sheer volume of educational materials available; gauging which is best can become a job of its own. Thankfully, my mentor teacher introduced me to STAAR MASTER® for Math and Reading. Everything else I’d seen paled in comparison! I will always use STAAR MASTER® resources because I know the rigor is there, and the format mirrors that of the STAAR®. I am a customer for life!”

Elizabeth K., 5th-grade teacher from South Texas

“Our district bought STAAR MASTER® Reading and Math for our 3rd graders last year for the first time. I felt like my students were more prepared than ever for the test!”

Ashlee R., Elementary teacher from North Texas

“I used STAAR MASTER® Student Practice Books all year long and was so excited when we got our test results at the end of the year. My eighth-grade students had a 96% pass rate...and I know [STAAR MASTER] helped them do so well on their tests.”

Anita S., Mathematics teacher from North Texas

“STAAR MASTER® has allowed my students to be successful and gain tremendous insight into many concepts and skills. I use this series every year...I love it!”

Sikina D., Mathematics teacher from Central Texas

“I tell all the teachers in my school: ‘Please don’t get that other stuff because STAAR MASTER® is the bomb!’ It really gets the students ready for the STAAR®.”

Brenda M., Math Department Chair from Houston

“STAAR MASTER® is a great resource! I used it with the students that failed their STAAR® test. This was a great way to review, and the students passed their retakes. I love this product!”

Alma A., Elementary teacher from South Texas

“ECS products have truly enhanced and prepared students for the state STAAR® assessment. ECS has created a standard model for our students to be comfortable and confident on the STAAR test.”

Margaret L., Instructional Teacher Advisor from South Texas

“STAAR MASTER® has been my “saving grace” resource. I've used it for guided reading instruction, independent and station activities, and assessments. My students have experienced success using this product, both academically and emotionally. I recommend STAAR MASTER® to any teacher at any district.”

Shay P., Elementary Curriculum Coordinator, East Texas

Thank you for trusting ECS Learning Systems for your classroom’s STAAR® needs!