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# Questions



## Texas Item Bank Frequently Asked Questions

*Focus on  
Standards™*

# What Is the FOS™ Texas Item Bank?

ETS has developed an item bank specifically built for or aligned to the Texas Essential Knowledge and Skills (TEKS) and it reflects the standards tested on the Texas Assessment of Knowledge and Skills (TAKS).

The high-quality, standards-based items cover Mathematics and Reading in Grades 3–8 and Writing in Grades 4 and 7. The items can be used to create formative assessments or interim/benchmark assessments to monitor and track student progress towards mastering the same student expectations measured by the TAKS. The items can also be used for ongoing assessment in the classroom.

## What subject areas and grade levels are included?

Currently, the Texas Item Bank contains Mathematics and Reading items in Grades 3–8 and Writing items in Grades 4 and 7. Science items are being developed.

## What item types are in the Texas Item Bank?

Currently, all items are multiple-choice. Constructed-response items are being developed.

## How many items are there and how well does the Texas Item Bank cover the Texas Essential Knowledge and Skills?

Currently, there are more than 4,000 items in Mathematics, Reading and Writing in the Texas Item Bank.

The items provide coverage of each tested student expectation according to the TAKS, not only in terms of the numbers of items for each objective, but also in terms of how well each TEKS student expectation is covered. For example, Grade 6 TEKS Student Expectation 6.1.B in Mathematics states that the student is expected to “generate equivalent forms of rational numbers including whole numbers, fractions and decimals,” so ETS developed items that reflect various aspects of this TEKS student expectation.



## **When ETS created the Item Bank for Texas, we:**

- reviewed the Texas Essential Knowledge and Skills
- reviewed released TAKS forms, all assessed TAKS objectives, TEKS student expectations and TAKS blueprints
- contacted the Texas Education Agency to verify the most current standard and testing information
- created binders of Texas Essential Knowledge and Skills and assessment information and distributed it to the ETS item development, editorial and alignment teams
- used the Texas Education Agency’s interpretation of the standards for developing items
- developed items that reflected the Texas Assessment of Knowledge and Skills to the extent possible

## **Do the items reflect a range of cognitive levels?**

Yes, the items in the Texas Item Bank are labeled according to their cognitive complexity using Bloom’s taxonomy. Items were developed to measure this range of cognitive levels as driven by the demands of each standard. When creating items, ETS reviewed each standard carefully to determine the appropriate thinking skill(s) a student would require to demonstrate mastery.

## **Do the items reflect a range of difficulty levels?**

Yes. Items at each grade level are labeled with three estimated difficulty levels: high, medium and low. It is critical that the Texas Item Bank have items with a range of difficulties to use throughout the school year as students advance (e.g., an item that is appropriate for use in April may not be appropriate in September).

## **What makes the ETS items high quality and why is that important?**

### **The items are of high quality because they:**

- go through rigorous content and editorial reviews
- are built for or aligned to state standards
- are developed by ETS’s experienced staff of assessment specialists
- contain accurate content that reflects current teaching practice
- adhere to the principles of good item writing as defined by industry standards
- measure a range of cognitive levels
- vary in difficulty
- reflect the ETS commitment to quality in assessment and item creation

In order to create fair, valid and reliable assessments, it is important to use high-quality items. An assessment is only as good as each item in it. If items do not really measure the standard at the appropriate cognitive level, the assessment results will not be useful. Teachers need valid assessment data to make effective use of their limited instructional time. And, instructional decisions made on the basis of assessment data should only be made with assessments created specifically for that purpose.

# Item Development

## What is the ETS item development process?

There are six basic steps ETS followed in developing items for the Texas Item Bank:

### 1. Develop item-writing guidelines

ETS assembled a staff of outstanding content assessment specialists who brought many years of item development experience to item bank creation. This staff used item writing guidelines to train the item writers who created the assessment items for the banks so they would reflect the highest technical quality and specifications.

### 2. Research the state's standards and testing materials

In order to develop items that are appropriately aligned to the Texas Essential Knowledge and Skills, we researched the standards and all available testing information on the state's website.

### 3. Select and train item writers to write high-quality items

Because variety, creativity and diversity are essential to high-quality item development, ETS assessment specialists worked with a pool of experienced item writers (most are current or former teachers) who received extensive training on the principles of good item writing.

### 4. Review and edit the items internally at ETS using trained assessment specialists and content editors

ETS accepts items only if they meet the following criteria, which are also used to qualify items during the following stages of the internal review process:

#### Match to Objective

Each item must demonstrate a specific match to the selected objective or standard. ETS requires each item writer to establish clear, close correspondence between the objective and the assessment items. This is a key item-writing principle.

#### Excellent Technical Quality

For multiple-choice items, as an example, well-crafted item stems include the following qualities so the student understands what is being asked before reading the response options. These qualities include balanced response options (no single conspicuous answer choice), plausible and reasonable distractors, absence of clueing between item stem and answer choices, clarity and brevity.

#### In addition, ETS reviewed each item so it:

- has one and only one correct answer
- clearly presents one central idea
- is at the appropriate level of difficulty
- contains clear, direct, unambiguous language that is appropriate for the grade level and English-language learners
- uses age-appropriate vocabulary and sentence structures
- assesses worthwhile (not trivial) concepts or information
- reflects current research-based teaching practices
- is not tricky or cute
- is factually accurate and reflects current teaching in the field

### **Appropriateness to Purpose**

ETS items reflect sound and current educational practice. ETS writers used their experience as educators to consider the educational significance of each item. They carefully crafted item content so that the item measures what is both important and able to be successfully taught and learned as part of standards-based instruction.

### **Difficulty Level**

The items in the Texas Item Bank represent a full range of difficulty — high, medium and low — as appropriate to the student expectations being measured. Our item writers and assessment specialists' educational and teaching experience helped them determine appropriate difficulty. The Texas Item Bank offers items that are appropriate throughout the school year for each grade level.

### **Cognitive Level**

The items represent a full range of thinking skills—as appropriate to the standards being measured.

## **5. Review and edit the items to verify their compliance with ETS Fairness (bias and sensitivity) Guidelines**

All ETS assessment specialists who reviewed items received specific ETS Fairness Review certification. They are specially trained to recognize and eliminate the use of discriminatory language/content and bias in assessment items. Compliance with the ETS Fairness Guidelines is an important component of valid testing. It means that only construct-relevant factors affect test takers' scores. The groups of primary concern for these reviews are defined by age, disability, ethnicity, gender, national origin, race, religion and sexual orientation.

## **6. Review and edit the items for style consistency, grammar and accuracy**

ETS maintains a large editorial and proofreading staff with many years of specific experience reviewing test items for publication. The items are designed to be as accurate as possible. Numerous reviews help achieve this goal.

# Item Content

## **What types of reading selections are available?**

Reading selections in the Texas Item Bank vary by genre, author, length and content. Selections are either expository (fact-based passages) or narrative (fictional stories or historical accounts). These two selections may be combined into a single format (mixed selections) or linked together (paired selections). There are a range of selection lengths as listed in the TAKS Information Booklets and selections are either from previously published literature or created specifically for the Texas Item Bank.

## **How is readability determined?**

Many tools measure readability, and the readability level of a passage can vary from tool to tool. That is why, in addition to the Flesch-Kincaid evaluation, ETS also uses professional judgment to evaluate a passage's content, paragraph and sentence structure and vocabulary (graded word lists). ETS's assessment development staff combines extensive classroom experience with assessment development experience. This enables them to make passage-level decisions.

## Frequently Asked Questions

### How are writing skills assessed?

Since Texas assesses writing with both multiple-choice items and writing prompts in Grades 4 and 7, ETS offers a way to address both approaches. The Texas Item Bank contains multiple-choice writing items at these grade levels that cover Organization, Sentence Structure, Standard Usage/Word Choice and Punctuation, Capitalization and Spelling.

For writing prompts, ETS offers The *Criterion*<sup>SM</sup> Online Writing Evaluation service. A web-based, instructor-driven, comprehensive instructional tool that helps students plan, write and revise essays, *Criterion* allows instructors to create their own topics or select from the *Criterion* topics library at any level from fourth grade through upper-level college. The system provides annotated diagnostic feedback and a holistic score to both student and instructor within 20 seconds so that students can quickly review, revise and resubmit essays. Instructors can also provide their own feedback within the system, as well as view summary reports of *Criterion* feedback.

### What are the strengths of the mathematics items?

**Real-life context** — Interesting and relevant situations reflect what is covered in the classroom and the real world.

**Accurate data** — All factual information contained in an item is verified.

**Appropriate reading load** — Minimal word count and controlled vocabulary so items are measuring mathematical ability, not reading ability.

**Graphics** — Stimulus materials (charts, graphs, etc.) model proper formats, and are only included if needed to answer the question.

**Distractor rationales** — These rationales help teachers better understand the kinds of errors students are making so they can address these common mistakes during instruction.

## Research/Statistics

### What validity information can be collected?

Assessments are produced for many purposes. It's important that assessment results are appropriate for the intended inferences and actions based on those results.

If, for example, the assessment's purpose is to provide a teacher with information about student performance in relationship to specific district or state standards, it is critically important that the items align with those standards. Additionally, items must be well written. They must measure student knowledge of a particular standard's content. And, a formative or benchmark assessment must contain enough items spanning a range of difficulties on a standard to give teachers enough information to adjust instruction appropriately based on student performance.

Over time, however, as a district's assessment program evolves and grows, school leaders' informational needs will also expand. School administrators may want to compare student performance across classrooms or with other, similar school districts. Many district leaders see great value in tracking an individual student's performance over his or her entire academic career or comparing test results for student populations over time.



With test scores playing an increasing role in education, it is likely that some districts will want to know how to use formative or benchmark assessment results to predict performance on other tests.

These needs can only be met by careful attention to the assessment development process. Data gathering and analysis need to be planned in advance when implementing a district assessment program.

## What questions should district personnel ask before conducting research?

Because data gathering is critical to the accuracy of assessment research studies, researchers should ask the following questions concerning assessments that will be used:

- What is the purpose of the assessment being researched?
- Is the construct (knowledge of skills) being measured clearly defined?
- Is the assessment recent enough to reflect current standards and classroom practices?
- Who will be participating in the research study and how many students will be participating in all?
- Are students from the district/state included in the study?
- If the results are to be compared across time, are the results reported on the same scale? If not, what studies will be conducted to provide comparable information?

When predefined assessment forms are available, an additional set of questions should be asked:

- What standards were assessed?
- Does this assessment align with the standards taught to students in the study?
- What process was used to write the items?
- How were the items selected and reviewed?

## How can the items be used to create assessments?

The items are delivered through ETS's **IDMS**<sup>®</sup> application, a web-based tool that helps educators manage and use assessment data to drive instructional practices, improve student achievement and optimize learning results by delivering data directly to the desktop computers of teachers and school leaders.

The IDMS application includes the easy-to-use *Test Builder* module, a user-friendly interface to enable educators to use best practices when creating assessments.

## What do these assessments cover?

An assessment can be created in the IDMS application to cover standards selected by a district, school or teacher. The user can also determine the number of items per standard.

## How many items are in an assessment?

The number of items usually varies by grade level, the standards being assessed and the purpose of the assessment. The IDMS application contains a set of guiding principles to help educators with the process of assembling a test form and selecting the number of items.

## How is item performance assessed?

There are a number of factors that can affect student performance on a test item such as item positioning, clueing, etc. ETS recommends evaluating item difficulty and discrimination to help determine if items perform as expected when administered. The *Item Analysis Report* generated by the IDMS application reports item difficulties (*p*-values) and discrimination statistics and includes a guide to help educators interpret the data and assess item performance.

# Creation and Delivery of Assessments

## How can customers use the Texas Item Bank?

If only the Texas Item Bank is needed (the district already has a test delivery and scoring solution), then the Texas Item Bank is delivered through a module of the IDMS application called *Test Builder*. This component enables educators to view the Texas Essential Knowledge and Skills and the aligned items, create assessments aligned to their specific state standards and print the assessments and assessment answer sheets. While the full IDMS application offers additional features that could help educators, it is not required in order to license or use the Texas Item Bank.

However, if a complete assessment solution (building, delivery and scoring) is needed, the customer will purchase the Texas Item Bank inside of the complete IDMS application. In addition to the *Test Builder* module, the IDMS application offers a package with the following features:

- **State Standards** — Connects to the Texas Essential Knowledge and Skills and local content standards that can be easily linked to curriculum pacing and instruction and intervention.
- **Online Testing** — Students log in to take tests and results are immediately accessible by teachers and administrators.
- **Plain-Paper Scanning and Scoring** — Electronically scan and score student responses for immediate access to results, utilizing a certified scanner for classroom and site level scanning.
- **Assessment Results and Reporting** — Access and report on results from district, school or classroom interim assessments. This feature analyzes formative or interim assessment results down to the standard or item level. Educators can drill down to identify group or student needs to inform instruction and intervention.

With powerful options only the IDMS application offers, educators view results by student and by standard proficiency, allowing easy identification of students that have not mastered the standards.

## How does *Test Builder* create assessments using the Texas Item Bank?

The *Test Builder* module includes test building, item authoring and scanning/scoring features that provide results reporting that is meaningful and actionable at the district, school, class and student levels. Users can access items to build interim or formative assessments that cover the standards taught during an instructional time period or sequence.

- **Item Search** — Locates a test item using the search feature.
- **Item Edit** — Allows the user to copy, edit and reformat an item without changing the original ETS item.
- **Test List** — Allows the user to view a list of previously published tests.
- **Test Builder** — Allows the user to build tests that can be printed and administered to students.
- **Scanning Center** — Electronically scans and scores student responses and provides users with immediate access to results.
- **Online Test Management** — Allows students to take an online test and provide immediate access to results.

## What types of testing, scanning and scoring solutions does the IDMS application support?

The IDMS application supports several methods of assessment data input, including an EZScan solution for plain-paper or scannable answer forms, and an online testing module taken by the student.

### Scoring through the IDMS application generates a variety of reports, including:

- **Assessment Results** — Assessment results are shown by student by class. The student's overall percent score is shown, as well as the number of actual correct answers selected by the student and the number of possible correct answers.
- **Assessment Query Report** — Students are placed into proficiency groups based on overall assessment scores. Student performance level results are shown by standard.
- **Student Results** — The student's overall percent score is shown, as well as the number of actual correct answers selected by the student and the number of possible correct answers.
- **Assessment Analysis Report** — Results display the number of questions on the assessment and the standards that are aligned to each question. The report is a comparison of results on multiple assessments by percentage, as well as by the number of items correct disaggregated by district, school, class and student down to the standard level.
- **Item Analysis Report** — Results include the number of students choosing each response option (multiple-choice); the number of students at each score point (constructed-response); item difficulty; item-total correlation; and test summary statistics.

# Technical Requirements

## What are the technical requirements for the IDMS application?

The Texas Item Bank is delivered through the IDMS application to any computer with an Internet connection. Due to the number of items and graphics within the items, a dial-up connection is not recommended.

The following describes the browsers and operating systems that are compatible with the IDMS application and EZScan (software that allows educators to upload student responses from scanned answer sheets into the IDMS application). It also provides information on browser settings and any additional software that you may need to make your experience using the IDMS application successful.

## IDMS Application Minimum System Requirements

Operating System	Windows 2000/Me/XP	Mac OS X 10.3 (Panther)	Mac OS X 10.4 (Tiger)
<b>Browser</b>	Internet Explorer 6 & 7 Firefox 1 & 2	Firefox 1.0.7	Firefox 1.0.7
<b>Processor</b>	750 MHz	600 MHz PowerPC G3	1.45 GHz PowerPC G4
<b>Memory</b>	256 Megabytes	128 Megabytes	512 Megabytes
<b>Display Resolution</b>	1024 × 768	1024 × 768	1024 × 768
<b>Internet Connection<sup>1</sup></b>	Broadband	Broadband	Broadband
<b>Bandwidth per user</b>	16 kbps	16 kbps	16 kbps
<b>Adobe® Acrobat Reader®<sup>2</sup></b>	6.0 or above	6.0 or above	6.0 or above
<b>Pop-up Blocker<sup>3</sup></b>	Allow for: <a href="http://www.ets.org">www.ets.org</a>	Allow for: <a href="http://www.ets.org">www.ets.org</a>	Allow for: <a href="http://www.ets.org">www.ets.org</a>

<sup>1</sup> Broadband connections are DSL, Cable or T1 lines.

<sup>2</sup> IDMS will prompt you when this software is required.

<sup>3</sup> If you are using a separate pop-up blocker program from Windows, follow instructions from your software provider to allow pop-ups for the <http://www.ets.org/k12learn> web address.

## IDMS Online Testing Minimum System Requirements

For Windows and Mac OS and Browsers	
<b>Browser</b>	See Minimum Requirements above
<b>Minimum Resolution<sup>1</sup></b>	800 × 600
<b>Optional Software</b>	Browser Lockdown

<sup>1</sup> If your system uses a higher resolution, Online Testing will still function correctly.

## EZScan v3.0 Minimum System Requirements

Operating System	Windows 95/98 w/Service Pack 2	Windows 2000/Me/XP	Mac OS 9.X <sup>1</sup>	Mac OS X 10.3 (Panther)	Mac OS X 10.4 (Tiger)
<b>Browser</b>	See recommendations above	See recommendations above	N/A	N/A	N/A
<b>Processor</b>	300 MHz Minimum 500 MHz+ Recommended	500 MHz Minimum 750 MHz+ Recommended	N/A	N/A	N/A
<b>Memory</b>	64 Megabytes	64 Megabytes	N/A	N/A	N/A
<b>Display Resolution</b>	1024 × 768	1024 × 768	N/A	N/A	N/A

<sup>1</sup>EZScan is not currently available for Mac operating systems.

## EZScan v3.0 Supported Scanners<sup>1</sup>

Supported Scanners	Brother DCP-8060	Panasonic KVS3065C	Canon DR7580	Samsung 4521F <sup>2</sup>
<b>Software Requirements</b>	EZScan 3.0 IDMS v7.1a or greater	EZScan 3.0 IDMS v7.1a or greater	EZScan 3.0 IDMS v7.1a or greater	EZScan 3.0 IDMS v7.1a or greater
<b>Windows Software Requirements<sup>3</sup></b>	.net Framework 1.1	.net Framework 1.1	.net Framework 1.1	.net Framework 1.1
<b>Mac Compatibility: EZScan</b>	None	None	None	None
<b>Model Still in Production</b>	Yes	Yes	Yes	Yes
<b>Twain Drivers</b>	Yes	Yes	Yes	Yes
<b>Pre-slug PDF Printing</b>				
• Page Scaling	N/A	N/A	N/A	N/A
• Auto Rotate & Center	N/A	N/A	N/A	N/A
• Choose Paper Source	Unchecked	Unchecked	Unchecked	Unchecked
• Pre-slug Printing Paper <sup>4</sup>	Standard White	Standard White	Standard White	Standard White
<b>EZScan Settings</b>				
• DPI Settings	300 dpi	300 dpi	300 dpi	300 dpi
• Scan Color	Black & White	Black & White	Black & White	Black & White
• Brightness	N/A	N/A	N/A	N/A

<sup>1</sup> Scanners not listed can be used with the new EZScan v3.0 using the new “Scan From File” feature, provided the scanner can generate Black & White, 300 dpi, multi-page tiff files.

<sup>2</sup> Scanner can be used in EZScan Novice mode only.

<sup>3</sup> Most Windows Operating Systems have this software installed. This is free software from Microsoft.

<sup>4</sup> Do not use colored or recycled paper; using nonstandard paper may result in rejected or erroneous data.



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