

***NWEA's Formative Assessment Item Bank
Item Development Process***

The items in the *Formative Assessment Item Bank (Item Bank)* were originally developed by the Educational Testing Service (ETS). ETS will continue to help NWEA maintain and enhance the *Item Bank*. If items are added from other sources, the same development process will be adhered to when creating materials for the *Item Bank*.

The process for producing high quality items for the *Item Bank* incorporates five steps: (1) assign item writers to write high quality items; (2) use item writing guidelines; (3) review and edit the items; (4) review and edit the items for bias and sensitivity; and (5) review and edit the items for style consistency, grammar, and accuracy.

1. **Assign Item Writers to Write High Quality Items:** Because variety, creativity, and diversity are essential to high quality item development, the item developers work with a pool of talented, experienced item writers, most of whom are current or former teachers.
2. **Use Item Writing Guidelines:** To establish that items adhere to principles of good item writing, guidelines are followed when writing and reviewing items. These guidelines are designed to provide for the creation of high quality items according to industry standards, which therefore reflect the highest technical quality.
3. **Review and Edit the Items:** Only items that meet the following criteria are accepted:

Match to Objective

Each item must demonstrate a match to the selected objective or standard.

Excellent Technical Quality

In addition, each item is reviewed so that 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
- is fair and unbiased

Appropriateness to Purpose

Items are constructed to reflect sound and current educational practice. Item writers and developers draw upon their experiences as teachers to consider the educational significance of each item. They carefully craft item content so that the item measures both what is important and also what is able to be successfully taught and learned as part of standards-based instruction.

Difficulty Level

The items in the *Item Bank* represent a range of levels — easy, medium, and difficult — as appropriate. Educational and teaching experiences, along with rigorous training in item development, help the item

writers and developers determine the appropriate difficulty level of each item. Difficulty levels are examined at each step of the review process.

Cognitive Level

The items represent a range of thinking skills as appropriate to the standards being measured. Items are labeled according to their cognitive complexity using Bloom's Revised Taxonomy.

Content Considerations

A number of content considerations for Mathematics and Science, Reading, and Writing also go into the development of the *Item Bank*.

Mathematics, Science, and Social Studies

The Mathematics, Science, and Social Studies items offer:

- real-life context — interesting and relevant situations that reflect both what is covered in the classroom and also what the student finds in the real world
- accurate data — all factual information contained in an item is verified
- appropriate reading load — word count is minimized and vocabulary is controlled so that items measure content understanding, not reading ability
- graphics — stimulus materials (charts, graphs, maps, etc.) model proper formats and are included only if they are needed to answer the question

The Mathematics items also offer distractor rationales — these rationales help teachers better understand the kinds of numerical errors students make so that they can address these types of mistakes during instruction.

Reading

Reading selections vary by genre, author, length, and content. Selections in the *Item Bank* are either:

- expository — students read in order to gain information for the purpose of learning about people, events, or a content topic
- narrative — students read fictional stories, poems, letters, diary entries, or nonfiction stories
- functional — students read how-to or workplace documents for understanding

The lengths of the reading selections vary and may be from either previously published literature or text created specifically for the *Item Bank*. The *Item Bank* may include materials that are licensed from third parties. NWEA reserves the right to withdraw passages and items as needed, should the license term for the third-party materials not be renewed by the third-party vendor.

Writing

The *Item Bank* contains multiple-choice items that cover organization; sentence structure; standard usage/word choice and punctuation; capitalization; and spelling, using both standalone items and passages with embedded errors.

Universal Test Design

Items are created to adhere to the principles of universal test design so that items are available to as many students as possible. In addition, item writers are taught to avoid using vocabulary and idiomatic phrases that could be unfamiliar to some students and to work to make the items as accessible as possible. Fonts and text size are appropriate for the grade levels or may be adjusted as needed.

4. **Check the items for Bias and Sensitivity:** Items are reviewed for potential use of discriminatory language, content, and bias and edited to eliminate any concerns. This review is an important component of valid testing because it establishes 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.

5. **Review and Edit the Items for Style Consistency, Grammar, and Accuracy:** The final stage of the development process includes checking questions for clarity of expression, correctness of language, appropriateness of language for the grade level assessed, and adherence to style guidelines. Language used in test items should be simple, direct, and free of ambiguity.