

***DAKOTA STEP***  
**TEST CONSTRUCTION**  
**SPECIFICATIONS**

**READING, MATHEMATICS, AND SCIENCE**

**Secure Document**

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## **Introduction: Purpose and Scope of Test Construction Specifications**

The purpose of this document is to provide content and statistical guidelines for the construction of test forms for the South Dakota State Test of Educational Progress (*Dakota STEP*) assessment. It has been prepared for review and documentation with the South Dakota Department of Education (SD DOE) and its primary test contractor, Pearson.

Pearson will construct, with the approval of SD DOE, the *Dakota STEP* as specified in Table 1.1. The Reading, Mathematics, and Science subtests will be constructed with custom items developed specifically to assess the South Dakota Academic Content Standards.

This document consists of three sections:

*Section 1: Overview* includes basic information about the statewide assessment such as its purpose and format.

*Section 2: Test Construction Principles and Processes* describes test blueprints and guidelines for constructing the operational tests.

*Section 3: Item Development and Field Testing* describes how items are developed, reviewed by teacher committees, and selected for field testing.

Although this specification is written specifically for the 2009-2010 *Dakota STEP* assessment, many of the processes described were used in previous years and may be considered applicable to future years as well. The combination of this document and the South Dakota Academic Content Standards provides a comprehensive description of the content included on the *Dakota STEP* and the means of assessing student achievement.

## Section 1: Overview

### **South Dakota Academic Content Standards**

*Dakota STEP* test content is specified by and assesses students' achievement of the South Dakota Academic Content Standards. The following Content Standards documents will be used in the construction of the *Dakota STEP* assessment and are available online at <http://doe.sd.gov/contentstandards/>:

- *South Dakota Reading Content Standards*, approved March 2007, statewide assessments operational in spring 2009
- *South Dakota Mathematics Content Standards*, approved June 2004, statewide assessments operational in spring 2006
- *South Dakota Science Content Standards*, approved June 2005, statewide assessments operational in spring 2007

### **Dakota STEP**

The *Dakota STEP* is South Dakota's annual statewide assessment of student progress. It is administered to students in grades 3 through 8 and 11 for Reading and Mathematics, grades 5, 8, and 11 for Science, each spring. The *Dakota STEP* fulfills the requirements for statewide assessment contained in the federal *No Child Left Behind Act of 2001* (NCLB). The assessment is administered in combined-content test booklets consisting of grade-specific subtests as shown in Table 1.1.

**Table 1.1: *Dakota STEP* Subjects and Grades Tested**

| <b>Content Domain</b> | <b>Grade</b> |          |          |          |          |          |           |
|-----------------------|--------------|----------|----------|----------|----------|----------|-----------|
|                       | <b>3</b>     | <b>4</b> | <b>5</b> | <b>6</b> | <b>7</b> | <b>8</b> | <b>11</b> |
| Reading               | ✓            | ✓        | ✓        | ✓        | ✓        | ✓        | ✓         |
| Mathematics           | ✓            | ✓        | ✓        | ✓        | ✓        | ✓        | ✓         |
| Science               | —            | —        | ✓        | —        | —        | ✓        | ✓         |

The number of operational and field-test items included in the test forms for each content domain are presented in Table 1.2. Although the number of field-test items is the same across all grade levels within subjects, the distribution of field test items across standards will differ from form to form.

**Table 1.2: *Dakota STEP* Item and Test Form Counts, by Content Domain**

| Content Domain     |           | Operational Items | Field Test Items | Total Items | Total Forms |
|--------------------|-----------|-------------------|------------------|-------------|-------------|
| <b>Reading</b>     |           |                   |                  |             |             |
| Grades 3-8         | Per form  | 56                | 20               | 76          | 1           |
|                    | Per grade | 56                | 40               | 96          | 2           |
| Grade 11           | Per form  | 50                | 20               | 70          | 1           |
|                    | Per grade | 50                | 40               | 210         | 2           |
| <b>Total</b>       |           | <b>386</b>        | <b>280</b>       | <b>666</b>  | <b>14</b>   |
| <b>Mathematics</b> |           |                   |                  |             |             |
| Grades 3-8, 11     | Per form  | 84                | 10               | 94          | 1           |
|                    | Per grade | 84                | 40               | 124         | 4           |
| <b>Total</b>       |           | <b>588</b>        | <b>280</b>       | <b>868</b>  | <b>28</b>   |
| <b>Science</b>     |           |                   |                  |             |             |
| Grades 5, 8        | Per form  | 70                | 9                | 79          | 1           |
|                    | Per grade | 70                | 36               | 106         | 4           |
| Grade 11           | Per form  | 84                | 10               | 94          | 1           |
|                    | Per grade | 84                | 40               | 124         | 4           |
| <b>Total</b>       |           | <b>224</b>        | <b>112</b>       | <b>336</b>  | <b>12</b>   |

### Operational Items

The *Dakota STEP* assessment is composed of multiple-choice items for all content domains and grades. All operational (core) multiple-choice items are worth one raw score point and are the basis of student scores. All students are assessed with the same operational items for each content domain. Linking (anchor or equating) items are operational items used to link the current assessment to the previous year’s score scale, and are included in the count of core items in the Table 1.2.

### Field Test Items

Newly developed items to be field-tested are embedded within the operational items to create four unique test booklets for each subject and grade (titled as Form A, B, C, and D). Field-test items do not count toward a student’s score but are evaluated for statistical quality for potential use as operational items in future test administrations.

After each test administration, all field test items are put into the item bank. If a field test item is rejected by a content or data review committee, this item is indicated in the bank as not eligible for the operational use. Content specialists select the items for operational use based on a set of criteria (see Section 2).

## Testing Sessions

Each subject-specific test is divided into multiple testing sessions as shown in Table 1.3. Although the *Dakota STEP* is an untimed assessment, approximate testing times for each of the test sessions are provided for planning purposes.

**Table 1.3: Approximate Testing Times for the *Dakota STEP***

|                           | Grade                          |                                |                                |                                |                                |                                |                                |
|---------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|                           | 3                              | 4                              | 5                              | 6                              | 7                              | 8                              | 11                             |
| <b>Reading</b>            | <b>2.3–3.0</b><br><b>hours</b> |
| First Session             | 35-45<br>min.                  | 45-60<br>min.                  | 45-60<br>min.                  | 45-60<br>min.                  | 45-60<br>min.                  | 45-60<br>min.                  | 45-60<br>min.                  |
| Second Session            | 35-45<br>min.                  | 45-60<br>min.                  | 45-60<br>min.                  | 45-60<br>min.                  | 45-60<br>min.                  | 45-60<br>min.                  | 45-60<br>min.                  |
| Third Session             | 35-45<br>min.                  | 45-60<br>min.                  | 45-60<br>min.                  | 45-60<br>min.                  | 45-60<br>min.                  | 45-60<br>min.                  | 45-60<br>min.                  |
| Fourth Session            | 35-45<br>min.                  | N/A                            | N/A                            | N/A                            | N/A                            | N/A                            | N/A                            |
| <b>Mathematics</b>        | <b>2.3–3.0</b><br><b>hours</b> |
| First Session             | 45-60<br>min.                  |
| Second Session            | 45-60<br>min.                  |
| Third Session             | 45-60<br>min.                  |
| <b>Science</b>            |                                |                                | <b>1.8–2.3</b><br><b>hours</b> |                                |                                | <b>1.8–2.3</b><br><b>hours</b> | <b>1.8–2.3</b><br><b>hours</b> |
| First Session             |                                |                                | 35-45<br>min.                  |                                |                                | 35-45<br>min.                  | 35-45<br>min.                  |
| Second Session            |                                |                                | 35-45<br>min.                  |                                |                                | 35-45<br>min.                  | 35-45<br>min.                  |
| Third Session             |                                |                                | 35-45<br>min.                  |                                |                                | 35-45<br>min.                  | 35-45<br>min.                  |
| <b>Total Testing Time</b> | <b>4.6–6.0</b><br><b>hours</b> | <b>4.6–6.0</b><br><b>hours</b> | <b>6.4–8.3</b><br><b>hours</b> | <b>4.6–6.0</b><br><b>hours</b> | <b>4.6–6.0</b><br><b>hours</b> | <b>6.4–8.3</b><br><b>hours</b> | <b>6.4–8.3</b><br><b>hours</b> |

## Section 2: Test Construction Principles and Processes

### Test Blueprints

The first step in the creation (or revision) of a standards-based assessment is the development of a *test blueprint*, which specifies the content standards to be assessed and the number of items to assess each standard. The underlying principle guiding the creation of test blueprints is establishing a clear relationship between the assessment and the content standards. The blueprint then serves as the foundation for the entire development process.

Test blueprints are created and approved by the SD DOE for each content domain and grade level. The item counts within the test blueprints represent the number of operational items on each test required to assess each content standard. The blueprints provided in Appendix A include the Bloom's Taxonomy designation of each content standard as well as the cognitive complexity requirements of each of the subject-specific tests.

### Cognitive Complexity

Cognitive complexity can be described in several different ways. The South Dakota content standards use Bloom's Taxonomy to describe the cognitive complexity for each standard. The cognitive complexity levels in Bloom's Taxonomy include: Knowledge, Comprehension, Application, Analysis, Synthesis, and Evaluation. For the purpose of alignment studies, cognitive complexity levels are defined as follows:

**Low level (L)** – (Bloom's Taxonomy level: **Knowledge**)

This level requires mainly recall, remembering factual information or definitions of terms, or the display of fairly routine skills. This level tends to deal with a single idea or procedure, require a display of concrete understanding, or ask for a demonstration of something learned directly from instruction.

**Moderate level (M)** – (Bloom's Taxonomy levels: **Comprehension** and **Application**)

This level requires more intellectual skill than those characterized as "Low", but may seem like it is something less than "High." This level may require the application of rules that are practiced extensively in the classroom, but are now applied to a new situation.

**High level (H)** – (Bloom's Taxonomy levels: **Analysis, Synthesis, and Evaluation**)

This level involves the application of ideas and procedures to solve problems or create new understandings. The situations are not habitual or routine; they are novel for most learners. Often multiple ideas are drawn upon or a high level of abstraction needs to be dealt with.

To ensure the reliability of scores, a sufficient number of items addressing each content indicator for which a score is to be reported must be maintained. The SD DOE requires a minimum of 7 items per content indicator. Instances where more than 7 items per indicator are assessed occur in Reading and grade 8 Science with the intent of maintaining consistent test length and targeting content standards of particular emphasis for these subject areas.

## Reading

The SD DOE requires the assessment of a minimum of 7 items per indicator for the *Dakota STEP* Reading tests at grades 3 through 8, and 11. All content standards are assessed within each of the reading indicators with the exception of standards within indicator 2 targeting fluency which can not be assessed in a multiple-choice test. Test blueprints for reading are presented in Appendix A

## Mathematics

The SD DOE requires the assessment of 7 items per indicator for the *Dakota STEP* Mathematics subtests at grades 3 through 8 and 11. All content standards are assessed within each of the mathematics strands and indicators. Test blueprints for mathematics are presented in Appendix A.

## Science

The SD DOE requires the assessment of a minimum of 7 items per indicator for the *Dakota STEP* Science subtests at grades 5, 8, and 11. All content standards are assessed within each of the science strands and indicators for each grade level. Test blueprints for science are presented in Appendix A.

## ***Selection of Operational Items***

In addition to meeting the test blueprint requirements, the following guidelines are used to select operational items for test forms. In all cases, the statistics examined are those generated after field testing and Data Review.

### **Item Discrimination**

***Point-biserial correlation range:  $\geq 0.25$***

The point-biserial correlation is the correlation between item score and total test score. Items with low point-biserial values are acceptable only if they are deemed necessary to fill gaps in content coverage.

### **Predictability of item performance**

***Infit and Outfit Values in the Range of 0.5 to 1.5***

Rasch fit statistics compare the theoretical expectation of an item's performance with its actual performance using mean squares of residuals. Greater mean-square values indicate wider discrepancies, and thus less predictability of item performance.

The Rasch *Outfit* is an un-weighted statistic. *Infit* weights cases by the standard deviation of student distribution. Conceptually, *Infit* is more sensitive to the responses of students whose overall performance corresponds closely to difficulty of the item and *Outfit* is more sensitive to the responses of students at the extremes of overall performance. In other words, if low or high performers do not perform as expected on a given item, the impact would be greater on the *Outfit* statistics. On the other hand, if students of median performance do not perform as expected, the impact would be greater on the *Infit* statistics. Although both fit statistics should be checked, the consequences of poor *Infit* statistics are greater than poor *Outfit* statistics.

The WINSTEPS software (Linacre, 2003) computes *Outfit* and *Infit* values, with expected values equal to 1.0. The WINSTEPS manual suggests that items with mean squares greater than 1.5 are unproductive and that including items with mean squares greater than 2.0 would compromise test quality. It also indicates that the *Infit* and *Outfit* values in the range of 0.5 to 1.5 are “Productive for measurement.” Pearson recommends this range of 0.5 to 1.5 for the *Infit* and *Outfit* values be established by SD DOE. Consequently, items with the *Infit* and *Outfit* outside this range will be excluded from the test. However, such items may be used if needed for content coverage with the approval of SD DOE.

## **Differential Item Functioning (DIF)**

DIF statistics examine whether an item functions differently for examinees with similar ability across subgroups. It is a statistical procedure to examine if items function similarly across subgroups conditional on examinees’ performance.

DIF statistics are calculated for all items, using subgroups that have the minimal sample size of 250 to compute the Mantel-Haenszel DIF statistics for the field testing items and 300 for the core items. The following is an example to show which sub group can serve as the focal group and which for the reference group.

- Males (reference group) versus females (focal group)

In statistical analysis, items are categorized by their degree of DIF using a system developed by the Educational Testing Service (ETS): negligible DIF (A), moderate DIF (B), and large DIF (C). For multiple-choice items, the Mantel-Haenszel Delta DIF (MH D-DIF) statistic is used to identify items that exhibit varying degrees of DIF at a significance level of .05<sup>1</sup>.

- Items are classified in category A if MH D-DIF is not statistically different from zero or the magnitude of the MH D-DIF values is less than one delta unit in absolute value.
- Items are classified in category C if the MH D-DIF absolute value exceeds 1.5 and is statistically significantly greater than 1.0.
- All other items are classified in category B.

Items classified in category B or C are not used unless the Data Review expert panel determines that the flagged items are not biased, and Pearson content experts conclude that these items are needed for content coverage. Items that are flagged at C category will not be selected for operational use unless approved by the SD DOE.

After content specialists select items to be placed in the operational forms, the content and statistic coverage of the form is examined. There should be a minimum of seven items per indicator (as required by the test blueprints), and the mean of the item difficulty of the test should be similar to the previous year’s test.

Scaling and equating of the *Dakota STEP test* is performed using the Rasch IRT model (Rasch, 1960). A useful feature of the IRT model is that the test characteristic curve (TCC, see Figure 3.1) can be constructed as the sum of item characteristic curves (ICC) for items included in the test. Coincidentally, the test information curve, a composite of item information, can be computed as

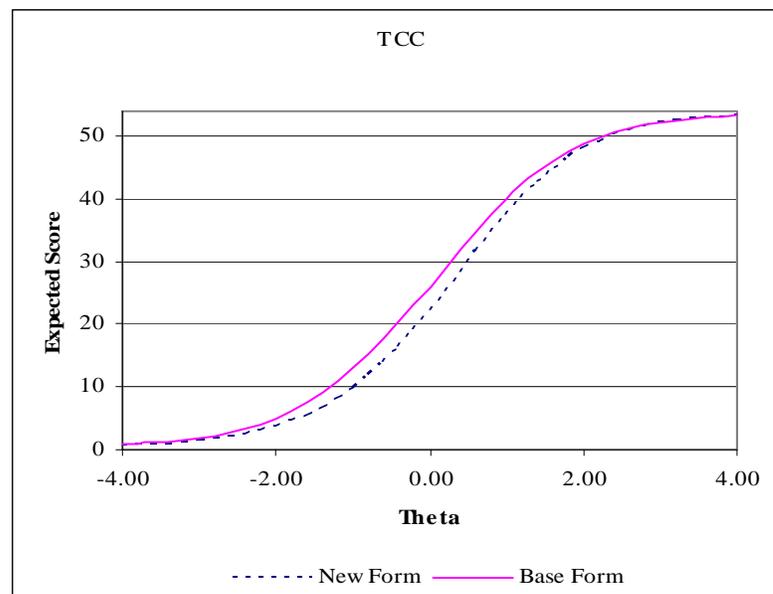
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<sup>1</sup> Holland, P. W. & Wainer, H. (1993). *Differential Item Functioning*. Lawrence Erlbaum Associates, New Jersey. pp. 41-42

well (TIC, see Figure 3.2). This figure is useful in guiding the form pulling process so that the new forms not only meet test specifications and maximize test information, but also are as parallel as possible across years.

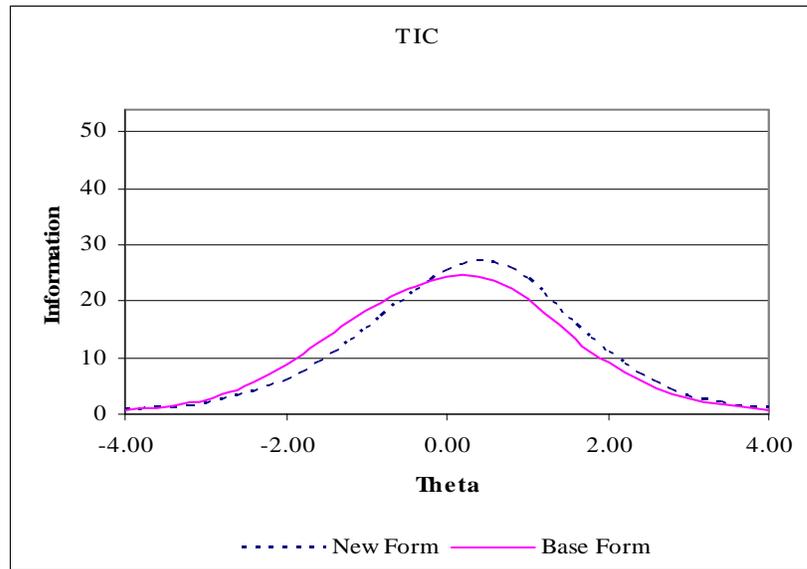
**Test Characteristic Curve (TCC)** In IRT, TCC is the sum of the item characteristic curve of each item in the test. TCC can be computed based on the previous year's test to assist form pulling as the baseline TCC. A new TCC that is based on the items selected by content specialists based on the test specifications can be computed. If a new form's TCC shifts to the right from the baseline, it indicates that the new form is more difficult than the baseline, and vice versa. However, a perfect TCC match is not required but it is preferable to have a close match TCC between the new and base form.

**Figure 2.1: Sample of Test Characteristic Curve**



**Test Information Curve (TIC)** Item information is an indicator of test reliability in IRT. Test information is the sum of the item information based on all the items in the test. The higher value of test information indicates better reliability. TIC can also be used to guide form pulling. The process and principles of matching TIC are similar to which of the TCC.

**Figure 2.2: Sample of Test Information Curve**



### ***Selection of Linking Items***

Linking items (anchor items, equating items) are selected from operational items and used to equate test results from year to year. Operational items are calibrated based on the Rasch IRT model (Rasch, 1960) using the WINSTEPS computer program (Linacre, 2003). Item parameters of linking items are fixed to the values of the existing parameters (e.g., to the values obtained in the previous administration). The other operational items (i.e., those are not selected as the linking items) will be freed and thus will be calibrated based on the data obtained in the current year of administration. The following guidelines govern the selection and placement of linking items.

Linking items are selected from operational items administered in the previous year and should meet the following guidelines (to the greatest extent possible):

1. The number of linking items should be at least 30 percent of the total number of items in each content area (e.g., Reading, Mathematics, and Science).
2. The linking items should appear in approximately the same item sequence position (within one third of the test length) as they appeared in the previous-year's test form.
3. The linking items should represent a miniature version of the test in terms of content and statistical properties.
  - The percentage distribution of the points from linking items across different reporting categories is similar to that of the whole test.
  - Average item difficulty is similar to that of the whole test. The range of item difficulty may be narrower than the whole test because extremely difficult or extremely easy items may not be selected as linking items.
4. The linking items should have strong statistical properties.
  - Linking items should have good discrimination (e.g., point-biserial correlation > .3).

- Infit and Outfit statistics should be close to 1.0 (e.g., within the range of 0.7 to 1.3).
  - Items with flagged DIF should not be used as linking items.
5. There should not be any change in the linking item from one administration to the other in terms of wording, formatting, or any other characteristics.
  6. Items that have only been field tested should not be used as linking items; for an item to be included in the linking set it must have been an operational item in the previous year. This means that all linking items have been previously calibrated as operational items.
  7. Items with less desirable statistics may only be used as linking items with the prior approval of SD DOE.

## **Reading**

To link the current test to the previous year, a linking set is constructed by selecting 16–18 items from each of the five reading content indicators which represents approximately 33% of the operational items. The content coverage and difficulty range of the linking set should be similar to that of the total test.

## **Mathematics**

To link the current test to the previous year, a linking set is constructed by selecting 28 items from each of the 12 mathematics content indicators which represents approximately 33% of the operational items. The content coverage and difficulty range of the linking set should be similar to that of the total test.

## **Science**

To link the current test to the previous year, a linking set is constructed by selecting 24–28 items from each of the content indicators which is approximately 33% of the operational items. The content coverage and difficulty range of the linking set should be similar to that of the total test.

## ***Guidelines for Refreshing Core Forms***

Each year, 30–60% of the operational items are replaced as the pool of standards-based items is expanded through new item development and field testing. Approximately 33% of the operational items are retained as the linking set in order to equate the test to the previous administration.

## ***Universal Design***

Universal Test Design is an approach to item development and test design that calls for minimizing the need for accommodations in test administration by making items accessible to the greatest number of students, including those with disabilities and non-native speakers of English. In applying these principles, item writers attempt to maximize readability, legibility, and compatibility with accommodations by avoiding wordiness and ambiguity, selecting reader-friendly constructions and terminology, and applying concept names and graphic conventions consistently. Universal design principles are also used to make decisions about test layout and design, including, but not limited to, type size, line length, spacing, and graphics. All items,

whether operational or field test, are intended to have a uniform appearance and are developed and composed using the same style guidelines for items in all subjects.

### **Special Accommodation Forms**

Braille and large print test forms are provided for students with special needs. These forms are based on Form 1 of each test. For the Braille assessment, field test items are omitted with placeholders inserted.

## Section 3: Item Development and Field Testing

### **Passage Specifications**

In order to fulfill blueprint requirements and to maintain a grade-appropriate emphasis on various passage types, passage development will reflect the approximate proportions shown in Table 3.1.

**Table 3.1: Approximate Proportions for Passage Type in Development Plan**

| Grade   | Passage Type |               |            |
|---------|--------------|---------------|------------|
|         | Literary     | Informational | Functional |
| 3-5     | 50%          | 35%           | 15%        |
| 6-8, 11 | 40%          | 35%           | 25%        |

Pearson commissions reading passages for the *Dakota STEP* that must be written to be age-appropriate, relevant, and engaging. They must also be sensitive to bias, tightly focused, and well organized. Table 3.2 has the word count ranges for different passage types.

**Table 3.2: Passage Word Count Ranges**

| Grade | Informational and Literary | Functional | Poems (Maximum) | Paired Passages (Maximum) |
|-------|----------------------------|------------|-----------------|---------------------------|
| 3     | 300-700                    | 300-500    | 150             | 700                       |
| 4     | 300-700                    | 300-500    | 150             | 700                       |
| 5     | 400-800                    | 300-600    | 200             | 900                       |
| 6     | 500-900                    | 400-700    | 250             | 900                       |
| 7     | 500-900                    | 400-700    | 250             | 1000                      |
| 8     | 600-1000                   | 500-800    | 400             | 1100                      |
| 11    | 700-1200                   | 600-1100   | 500             | 1200                      |

### **Informational Passages**

General non-fiction articles and biographies: These selections emphasize documented fact, with the primary purpose being to inform the reader. Topics include noteworthy people who are no longer living, historical and current events, and expository passages in content areas (e.g., art, music, science, history, government). Informational passages should be written so that the reader may be asked to:

- Identify major points and distinguish them from supporting details.
- Extract main ideas and indicate relevance of supporting details.
- Locate information using graphics such as charts, graphs, maps, and timelines.
- Analyze and use organizational features of text such as headings, bold print, etc.
- Analyze how text is organized (sequence, cause/effect, chronology, or categorization).

- Explain how the organization of the text supports the writer’s major concepts and purposes.
- Connect concepts, issues, and information presented in text with commonly understood concepts about the world.

**Paired Informational**

These passages consist of a pairing of informational passages that exhibit the qualities described above. Additionally, paired passages lend themselves to items that involve comparison and/or contrast of details, ideas, issues, organization, scope, purpose, etc. Paired passages usually focus on similar events or people, or they focus on the same event or person but through a different perspective.

**Informational Narrative**

These passages are related from first-person point of view and involve a sequence of events. They focus on a topic and provide information, and they exhibit some of the characteristics of an informational passage, but they do so through the context of a meaningful experience that the speaker shares. For example, a speaker may share an experience about planting a garden with his or her grandparent and explain about different types of seeds and plants.

**Functional Passages**

These selections convey practical, everyday information. Examples include: Rules, guidelines, and entry forms; Safety, assembly, or operating instructions; Memos, manuals, and handbooks; Applications, resumes, and letters, both business and personal; Print ads, including posters and flyers; Newspaper articles and letters to the editor. Functional passages should be written so that the reader may be asked to:

- Demonstrate an accurate understanding of the information.
- Explain how key aspects of the content are relevant to a reader’s informational needs.
- Select information appropriate to the task and apply it logically and validly to complete the task.
- Select information and details from the text to complete the task accurately, adequately, and appropriately.
- Cite an adequate amount of information to support conclusions about the relevance and importance of the information read.
- Identify and evaluate persuasive techniques.

**Paired Functional**

These passages consist of a pairing of functional passages that exhibit the qualities described above. Usually, these pairings consists of two advertisements for similar products, two fliers for similar activities, or a newspaper article and letter to the editor about a relevant issue. These selections require students to process and discriminate information found in "real-world" materials.

**Literary Passages**

**Fictional Narrative**

Short stories must contain a clear progression of events, believable characters, a well-developed plot and/or theme, a clear and deliberate point of view, an identifiable conflict, a climax and/or turning point, and a resolution. Fiction genres include contemporary fiction,

mystery, historical fiction, science fiction, fantasy, legends, tall tales, and folk tales. Fictional narratives must be written so that the reader may be asked to:

- Understand the development of characters using details from that story to accurately report what the characters do, say, and think; what other characters say about them and what the writer says directly.
- Understand how the depiction of major and minor characters is important to a story's plot and theme, or simply what about the description of characters makes them worth remembering.
- Use an adequate amount of details from the story to describe and discuss its characters and their roles.
- Understand the author's use of symbolism and identify details that establish the symbolism.
- Describe the importance of symbolism to the story's plot and theme.
- Recognize a number of techniques and details the author has used to establish symbolism in a story.
- Identify the moods of a story by locating details the author has used to establish the mood.
- Describe the importance of the mood to the story's plot and theme.
- Recognize a number of techniques and details the author has used to establish one or more moods throughout a story.
- Identify initiating action, or conflict, in a story's plot in relation to its highest point, the climax.
- Understand how high points in a story's action builds to its climax and/or can identify the presentation of a problem and its solution or resolution as basic to the story's plot structure.
- Describe all of the significant events in a story and the sequence in which those events occur.
- Articulate a reasonable story theme.
- Explain how various elements of the story contribute to the development of its theme.
- Provide enough information to support his or her interpretation of the story's theme.
- Relate details from the story to social, cultural, or historical contexts.
- Recognize and explain the use of figurative language, imagery, etc.

### **Poetry**

Poems must (unless the form dictates otherwise) use literary techniques such as meter, rhyme, sound and figurative language to convey emotion, experience, or ideas. Most importantly, however, poems must have depth. A poem, for example, that just focuses on a scene in nature lacks the depth needed for assessment purposes. Instead, the same poem might focus on a bee's journey through nature in search of its hive. Every poem must have a universal theme. Examples of poetic forms include lyric, ballad, haiku, narrative, free verse, and sonnet.

### **Cultural Diversity**

Multicultural literature refers to texts that feature storylines that are about members of racial, religious, or language micro-cultures other than Euro-American. The five most populous micro-cultures in the United States are:

- African American;
- Asian American (including Chinese, Japanese, Korean, and Vietnamese descent);

- Latino American (including Cuban Americans, Mexican Americans, Puerto Ricans, and others of Spanish descent);
- Native American (a general term referring to the many tribes of American Indians); and
- Jewish.

**Culturally diverse texts**

- Children who see people like themselves represented in texts derive self-esteem and pride in their own heritage.
- Children learn about people and their cultures.
- Each culture has much to teach to other cultures.
- Engagement with a certain culture can reduce students’ prejudices toward micro-cultures.
- Reading about people of one’s own culture facing issues/problems may help children of that same and other cultures cope with the same problems themselves.

**Features:**

- Avoids racial and cultural stereotyping. Instead multi-faceted, well-rounded characters are featured. The nature of stereotyping is that it unfairly assigns a fixed image or fixed characteristics to everyone within a group, thereby denying everyone with the group the right to any individuality or choice.
- Cultural details are reasonably accurate. Regional differences make it impossible for portrayals of events, celebrations, holidays, and so forth, to be declared as “the way” something is done. Authors should be careful to avoid sweeping generalizations.

**Taboo Topics**

Pearson will consider accepting items with contexts that address most topics as long as they are tastefully handled, well written, and present an interesting, real-world situation. Writers are advised, however, to avoid subject matter that would cause a selection to be deemed unacceptable by Pearson or its client(s) for any of the following reasons:

- The topic could evoke unpleasant emotions in the test takers that are likely to hamper their ability to take the remainder of the test in the optimal frame of mind.
- The topic is controversial among the adult population and might not be acceptable in a classroom setting.
- The topic has been over used in standardized tests or textbooks and is thus overly familiar and/or boring to students.
- The topic will appear biased against (or toward) some group of people.
- In general, avoid any reference to the following topics:

|  |   |  |
|--|---|--|
| Abortion, birth control                                  | Evolution, creationism, origin of universe, age of dinosaurs, worldwide flood, prehistoric humans | Religion, religious holidays   |
| Anthropomorphism (except in contexts such as fables)     | Extraterrestrial life, UFOs   | Sex, sexuality, pornography, abuse   |
| Bodily functions   | Gambling, lotteries   | Single parents (no direct reference) , step-parents, foster parents, and guardians |
| Catastrophic events                                      | Halloween   | Slavery, child labor, sweatshops   |
| Crime, criminals, prisons, capital punishment            | Junk Food   | Violence, gangs, terrorism, bloodshed, war*  |
| Children dealing with serious issues                     | Magic realism, the paranormal, New Age ideas/objects  | Weapons (street, military, nuclear)  |
| Dancing, the prom  | Movies, television programs   |  |
| Death, life-threatening diseases/illnesses (cancer etc.) | Natural Disasters   |  |

|                                       |   |  |
|---------------------------------------|---|--|
| Divorce<br>Drug, alcohol, tobacco use | Obesity, dieting<br>Parapsychology<br>Politics, political issues that are current and controversial | Witchcraft, sorcery, the occult,<br>Ouija boards |
|---------------------------------------|---|--|

\*While war should never be the focus of a passage, a passage set during a time of war, should be acceptable.

In general, avoid anything that could be interpreted as:

|  |
|--|
| <p>Critical of democracy, government, capitalism<br/>         Dangerous for children (alone at home, swimming without adult supervision, etc.)<br/>         Demeaning to any group or individual, especially regarding race, ethnicity, gender, age, religion, etc.<br/>         Disrespectful of authority, authority figures<br/>         Extravagant or expensive (to the point of being generally unfamiliar to children)<br/>         Highly controversial<br/>         Limited to a certain socioeconomic or educational level<br/>         Middle to upper-class amenities/activities that may be unfamiliar to some children (home PCs, swimming pools, expensive vacations, large gifts, etc.)<br/>         Regionalistic, nationalistic<br/>         Smug, moralistic, preachy</p> |
|--|

### ***Item Specifications***

The *Dakota STEP* subtests are constructed with multiple-choice items that require students to choose the correct answer and mark their response by filling in a bubble on their answer document. The *Dakota STEP* Item Specifications require that:

- Items appropriately measure and align with the grade-specific content standards. Items focus on what students should know and be able to do at their grade level.
- Items developed for the *Dakota STEP* are reviewed and approved by the SD Content and Bias Review committees and SD DOE prior to field testing.
- Items are drawn from the passage or stimulus in such a way that a student’s previous knowledge does not impact his or her response.
- Items focus on skills and comprehension strategies, avoiding measurement of a student’s feelings or values.
- Items are worded precisely and clearly.
- Correct answers are approximately equally distributed among A’s, B’s, C’s, and D’s.
- Response choices are approximately the same length, have the same format, and are syntactically parallel. Students should not be able to rule out a wrong answer or identify a correct response simply by virtue of its looking or sounding different.
- Distractors are plausible although incorrect in the context of the stimulus. Distractors adopt the language and sense of the material in the stimuli so that students must think their way to the correct answer.
- The order of presentation is dictated by logic (chronologically, spatially, etc.)
- A balance of gender and active/passive roles by gender is maintained.
- To the greatest extent possible, no item or response choice clues the answer to any other item.

## **Item Content and Bias/Sensitivity Review Process**

SD DOE selects participants for Item Content and Bias/Sensitivity Review meetings based on a demographic sampling plan and nomination process approved by the SD TAC. These meetings are conducted under the guidance of SD DOE staff, and facilitated by subject matter experts from Pearson. Selected participants are assigned to specific grade or grade span groups based on professional experience and knowledge. Participants receive training in a general session before separating into grade/grade span groups. The general content bias and sensitivity categories reviewed in training and utilized as criteria for items reviewed are:

- Gender
- Racial/ethnic
- Religious
- Geographic/regional
- Socioeconomic
- Linguistic

Once general training has been completed, participants separate into their grade/grade span specific groups to begin their review of the items. Committee Review Books (containing the items to be reviewed) are distributed as secure documents to each participant.

The process begins with each group participant conducting an individual review of a designated number of items (usually all items developed to assess a specific content standard or strand). Once individual reviews have been completed, the Pearson facilitator leads the group in discussion of each item, carefully reviewing the individual comments until the group reaches a consensus to accept, accept with edits, or reject each item. This process continues until all items have been reviewed and committee consensus has been documented and reconciled. Participants review the items in order to make recommendations as to whether each item is suitable for field testing. SD DOE then reviews the committee's recommendations for final approval of the items.

## **Selection and Placement of Field-test Items**

**Item Selection**— Items approved at Content and Bias Review meetings and by SD DOE are selected for field testing based on (1) the need for standards coverage and (2) the need for format variety.

**Item Location**— Field test items are placed at designated positions (within the operational test) across forms and years.

## **Data Review Process**

SD DOE selects participants for Data Review meetings based on a demographic sampling plan and nomination process approved by the SD TAC. Selected participants are assigned to specific grade or grade span groups based on their professional experience and knowledge.

Data Review meetings serve as the final review of items after field testing and before use as operational items. These meetings are conducted under the guidance of SD DOE staff, and facilitated by psychometric staff and subject matter experts from Pearson. During the meeting, participants review the items based on their field test statistics in order to make recommendations

as to whether the items reviewed are eligible for inclusion in future revisions of the operational test.

Following a general training session explaining the statistics reviewed and their relevance to the process, participants are separated into grade level and subject matter groups, and the actual review of the items takes place. For each item, the committee reviews the following item statistics:

- p-value (item difficulty index)
- point-biserial correlation (item discrimination and quality indices)
- Mantel-Haenszel differential item functioning statistics (item bias computed where a minimum n-counts, currently 250, per demographic group can be obtained)
- Overall student response broken down by student scores

The committee reviews the items in the light of the values of these statistics, concentrating on potential defects in items that may result in:

- inappropriate difficulty (too hard or too easy)
- non-discriminating characteristics
- differentially difficult for some demographic group(s)

Care must be taken to ensure that only items with specific and identifiable defects are rejected—items that address appropriate content at the appropriate grade level can occasionally have not optimal item statistics for reasons other than defects intrinsic to the item. Such items can provide valuable information to teachers, parents, and educational administrators and so should not be rejected simply on the basis of their statistics.

Items accepted by SD DOE based on the Data Review Committee recommendations will be added to the “item bank” and are available for inclusion in future operational use. Rejected items are normally discarded, however; if a rejected item is revised, it must be treated as a new item, field tested, and reviewed by a subsequent Data Review expert panel in order to be eligible for operational use.

## **Appendix A: Test Blueprints**

### Reading Blueprint for Grade 3

| Bloom's DOKs<br>Item Counts | Low       | Medium    |           | High      |          |          | TOTAL<br>TEST |
|-----------------------------|-----------|-----------|-----------|-----------|----------|----------|---------------|
|                             | Know      | Comp      | Appl      | Analysis  | Synth    | Eval     |               |
|                             | 11        | 10        | 18        | 14        | 3        | 0        |               |
| <b>Indicator 1</b>          | <b>3</b>  | <b>2</b>  | <b>3</b>  | <b>2</b>  | <b>0</b> | <b>0</b> | <b>10</b>     |
| 1.1 Appl                    | 3         | 2         | 3         | 2         |          |          |               |
| <b>Indicator 2</b>          | <b>2</b>  | <b>3</b>  | <b>7</b>  | <b>2</b>  | <b>0</b> | <b>0</b> | <b>14</b>     |
| 2.1 Appl                    | 2         | 3         | 7         | 2         |          |          |               |
| * 2.2                       | x         | x         | x         | x         | x        | x        |               |
| <b>Indicator 3</b>          | <b>2</b>  | <b>2</b>  | <b>2</b>  | <b>6</b>  | <b>2</b> | <b>0</b> | <b>14</b>     |
| 3.1 Analysis                | 1         | 1         | 1         | 3         | 1        |          |               |
| 3.2 Analysis                | 1         | 1         | 1         | 3         | 1        |          |               |
| <b>Indicator 4</b>          | <b>1</b>  | <b>1</b>  | <b>1</b>  | <b>3</b>  | <b>1</b> | <b>0</b> | <b>7</b>      |
| 4.1 Analysis                | 1         | 1         | 1         | 3         | 1        |          |               |
| <b>Indicator 5</b>          | <b>3</b>  | <b>2</b>  | <b>5</b>  | <b>1</b>  | <b>0</b> | <b>0</b> | <b>11</b>     |
| 5.1 Appl                    | 1         | 1         | 1         | 1         |          |          |               |
| 5.2 Appl                    | 1         | 1         | 2         |           |          |          |               |
| 5.3 Appl                    | 1         |           | 2         |           |          |          |               |
| <b>Totals</b>               | <b>11</b> | <b>10</b> | <b>18</b> | <b>14</b> | <b>3</b> | <b>0</b> | <b>56</b>     |

### Reading Blueprint for Grade 4

| Bloom's DOKs<br>Item Counts | Low       | Medium    |           | High      |           |          | TOTAL<br>TEST |
|-----------------------------|-----------|-----------|-----------|-----------|-----------|----------|---------------|
|                             | Know      | Comp      | Appl      | Analysis  | Synth     | Eval     |               |
|                             | 11        | 10        | 14        | 10        | 10        | 1        |               |
| <b>Indicator 1</b>          | <b>2</b>  | <b>3</b>  | <b>3</b>  | <b>2</b>  | <b>0</b>  | <b>0</b> | <b>10</b>     |
| 1.1 Analysis                |           | 1         | 1         | 2         |           |          |               |
| 1.2 Comp                    | 2         | 2         | 2         |           |           |          |               |
| <b>Indicator 2</b>          | <b>2</b>  | <b>2</b>  | <b>3</b>  | <b>0</b>  | <b>7</b>  | <b>0</b> | <b>14</b>     |
| 2.1 Synth                   | 2         | 2         | 3         |           | 7         |          |               |
| * 2.2                       | x         | x         | x         | x         | x         | x        |               |
| * 2.3                       | x         | x         | x         | x         | x         | x        |               |
| <b>Indicator 3</b>          | <b>6</b>  | <b>1</b>  | <b>2</b>  | <b>3</b>  | <b>1</b>  | <b>1</b> | <b>14</b>     |
| 3.1 Know                    | 6         |           |           |           |           |          |               |
| 3.2 Analysis                |           | 1         | 2         | 3         |           |          |               |
| 3.3 Eval                    |           |           |           |           | 1         | 1        |               |
| <b>Indicator 4</b>          | <b>0</b>  | <b>1</b>  | <b>2</b>  | <b>4</b>  | <b>0</b>  | <b>0</b> | <b>7</b>      |
| 4.1 Analysis                |           | 1         | 2         | 4         |           |          |               |
| <b>Indicator 5</b>          | <b>1</b>  | <b>3</b>  | <b>4</b>  | <b>1</b>  | <b>2</b>  | <b>0</b> | <b>11</b>     |
| 5.1 Synth                   |           | 1         |           | 1         | 2         |          |               |
| 5.2 Appl                    | 1         | 2         | 4         |           |           |          |               |
| <b>Totals</b>               | <b>11</b> | <b>10</b> | <b>14</b> | <b>10</b> | <b>10</b> | <b>1</b> | <b>56</b>     |

\* Standard not assessed

### Reading Blueprint for Grade 5

| Bloom's DOKs<br>Item Counts | Low      | Medium    |           | High      |          |          | TOTAL<br>TEST |
|-----------------------------|----------|-----------|-----------|-----------|----------|----------|---------------|
|                             | Know     | Comp      | Appl      | Analysis  | Synth    | Eval     |               |
|                             | 8        | 11        | 20        | 14        | 1        | 2        |               |
| <b>Indicator 1</b>          | <b>1</b> | <b>2</b>  | <b>3</b>  | <b>3</b>  | <b>1</b> | <b>0</b> | <b>10</b>     |
| 1.1 Appl                    | 1        | 1         | 2         | 1         |          |          |               |
| 1.2 Analysis                |          | 1         | 1         | 2         | 1        |          |               |
| <b>Indicator 2</b>          | <b>3</b> | <b>2</b>  | <b>7</b>  | <b>2</b>  | <b>0</b> | <b>0</b> | <b>14</b>     |
| 2.1 Appl                    | 3        | 2         | 7         | 2         |          |          |               |
| * 2.2                       | x        | x         | x         | x         | x        | x        |               |
| <b>Indicator 3</b>          | <b>1</b> | <b>3</b>  | <b>5</b>  | <b>3</b>  | <b>0</b> | <b>2</b> | <b>14</b>     |
| 3.1 Analysis                |          | 1         | 1         | 3         |          |          |               |
| 3.2 Eval                    |          | 1         | 1         |           |          | 2        |               |
| 3.3 Appl                    | 1        | 1         | 3         |           |          |          |               |
| <b>Indicator 4</b>          | <b>0</b> | <b>1</b>  | <b>2</b>  | <b>4</b>  | <b>0</b> | <b>0</b> | <b>7</b>      |
| 4.1 Analysis                |          | 1         | 2         | 4         |          |          |               |
| <b>Indicator 5</b>          | <b>3</b> | <b>3</b>  | <b>3</b>  | <b>2</b>  | <b>0</b> | <b>0</b> | <b>11</b>     |
| 5.1 Analysis                |          | 1         | 1         | 2         |          |          |               |
| 5.2 Know                    | 2        | 1         |           |           |          |          |               |
| 5.3 Appl                    | 1        | 1         | 2         |           |          |          |               |
| <b>Totals</b>               | <b>8</b> | <b>11</b> | <b>20</b> | <b>14</b> | <b>1</b> | <b>2</b> | <b>56</b>     |

### Reading Blueprint for Grade 6

| Bloom's DOKs<br>Item Counts | Low      | Medium    |           | High      |          |          | TOTAL<br>TEST |
|-----------------------------|----------|-----------|-----------|-----------|----------|----------|---------------|
|                             | Know     | Comp      | Appl      | Analysis  | Synth    | Eval     |               |
|                             | 8        | 13        | 15        | 14        | 4        | 2        |               |
| <b>Indicator 1</b>          | <b>1</b> | <b>3</b>  | <b>4</b>  | <b>2</b>  | <b>0</b> | <b>0</b> | <b>10</b>     |
| 1.1 Analysis                |          | 1         | 1         | 2         |          |          |               |
| 1.2 Appl                    | 1        | 2         | 3         |           |          |          |               |
| <b>Indicator 2</b>          | <b>1</b> | <b>2</b>  | <b>3</b>  | <b>7</b>  | <b>1</b> | <b>0</b> | <b>14</b>     |
| 2.1 Analysis                | 1        | 2         | 3         | 7         | 1        |          |               |
| * 2.2                       | x        | x         | x         | x         | x        | x        |               |
| <b>Indicator 3</b>          | <b>5</b> | <b>6</b>  | <b>3</b>  | <b>0</b>  | <b>0</b> | <b>0</b> | <b>14</b>     |
| 3.1 Comp                    | 2        | 2         | 1         |           |          |          |               |
| 3.2 Comp                    | 1        | 2         | 1         |           |          |          |               |
| 3.3 Comp                    | 2        | 2         | 1         |           |          |          |               |
| <b>Indicator 4</b>          | <b>1</b> | <b>1</b>  | <b>1</b>  | <b>3</b>  | <b>1</b> | <b>0</b> | <b>7</b>      |
| 4.1 Analysis                | 1        | 1         | 1         | 3         | 1        |          |               |
| <b>Indicator 5</b>          | <b>0</b> | <b>1</b>  | <b>4</b>  | <b>2</b>  | <b>2</b> | <b>2</b> | <b>11</b>     |
| 5.1 Synth                   |          |           | 1         | 1         | 2        |          |               |
| 5.2 Eval                    |          |           | 1         | 1         |          | 2        |               |
| 5.3 Appl                    |          | 1         | 2         |           |          |          |               |
| <b>Totals</b>               | <b>8</b> | <b>13</b> | <b>15</b> | <b>14</b> | <b>4</b> | <b>2</b> | <b>56</b>     |

\* Standard not assessed

### Reading Blueprint for Grade 7

| Bloom's DOKs<br>Item Counts | Low      | Medium    |           | High      |          |          | TOTAL<br>TEST |
|-----------------------------|----------|-----------|-----------|-----------|----------|----------|---------------|
|                             | Know     | Comp      | Appl      | Analysis  | Synth    | Eval     |               |
|                             | 8        | 13        | 15        | 14        | 4        | 2        |               |
| <b>Indicator 1</b>          | <b>0</b> | <b>2</b>  | <b>2</b>  | <b>4</b>  | <b>2</b> | <b>0</b> | <b>10</b>     |
| 1.1 Analysis                |          | 1         | 1         | 2         | 1        |          |               |
| 1.2 Analysis                |          | 1         | 1         | 2         | 1        |          |               |
| <b>Indicator 2</b>          | <b>3</b> | <b>4</b>  | <b>4</b>  | <b>3</b>  | <b>0</b> | <b>0</b> | <b>14</b>     |
| 2.1 Appl                    | 3        | 4         | 4         | 3         |          |          |               |
| * 2.2                       | x        | x         | x         | x         | x        | x        |               |
| <b>Indicator 3</b>          | <b>4</b> | <b>4</b>  | <b>2</b>  | <b>2</b>  | <b>1</b> | <b>1</b> | <b>14</b>     |
| 3.1 Eval                    |          |           |           |           | 1        | 1        |               |
| 3.2 Comp                    | 2        | 2         | 1         | 1         |          |          |               |
| 3.3 Comp                    | 2        | 2         | 1         | 1         |          |          |               |
| <b>Indicator 4</b>          | <b>1</b> | <b>2</b>  | <b>3</b>  | <b>1</b>  | <b>0</b> | <b>0</b> | <b>7</b>      |
| 4.1 Appl                    | 1        | 2         | 3         | 1         |          |          |               |
| <b>Indicator 5</b>          | <b>0</b> | <b>1</b>  | <b>4</b>  | <b>4</b>  | <b>1</b> | <b>1</b> | <b>11</b>     |
| 5.1 Appl                    |          | 1         | 2         |           |          |          |               |
| 5.2 Analysis                |          |           | 1         | 2         |          |          |               |
| 5.3 Eval                    |          |           |           |           | 1        | 1        |               |
| 5.4 Analysis                |          |           | 1         | 2         |          |          |               |
| <b>Totals</b>               | <b>8</b> | <b>13</b> | <b>15</b> | <b>14</b> | <b>4</b> | <b>2</b> | <b>56</b>     |

### Reading Blueprint for Grade 8

| Bloom's DOKs<br>Item Counts | Low      | Medium    |           | High      |          |          | TOTAL<br>TEST |
|-----------------------------|----------|-----------|-----------|-----------|----------|----------|---------------|
|                             | Know     | Comp      | Appl      | Analysis  | Synth    | Eval     |               |
|                             | 6        | 10        | 15        | 15        | 8        | 2        |               |
| <b>Indicator 1</b>          | <b>3</b> | <b>3</b>  | <b>3</b>  | <b>1</b>  | <b>0</b> | <b>0</b> | <b>10</b>     |
| 1.1 Appl                    | 3        | 3         | 3         | 1         |          |          |               |
| <b>Indicator 2</b>          | <b>0</b> | <b>3</b>  | <b>4</b>  | <b>4</b>  | <b>3</b> | <b>0</b> | <b>14</b>     |
| 2.1 Analysis                |          | 3         | 4         | 4         | 3        |          |               |
| * 2.2                       | x        | x         | x         | x         | x        | x        |               |
| <b>Indicator 3</b>          | <b>0</b> | <b>2</b>  | <b>4</b>  | <b>6</b>  | <b>2</b> | <b>0</b> | <b>14</b>     |
| 3.1 Analysis                |          | 1         | 2         | 3         | 1        |          |               |
| 3.2 Analysis                |          | 1         | 2         | 3         | 1        |          |               |
| <b>Indicator 4</b>          | <b>0</b> | <b>1</b>  | <b>2</b>  | <b>3</b>  | <b>1</b> | <b>0</b> | <b>7</b>      |
| 4.1 Analysis                |          | 1         | 2         | 3         | 1        |          |               |
| <b>Indicator 5</b>          | <b>3</b> | <b>1</b>  | <b>2</b>  | <b>1</b>  | <b>2</b> | <b>2</b> | <b>11</b>     |
| 5.1 Eval                    |          |           | 1         | 1         |          | 2        |               |
| 5.2 Know                    | 3        |           |           |           |          |          |               |
| 5.3 Synth                   |          | 1         | 1         |           | 2        |          |               |
| <b>Totals</b>               | <b>6</b> | <b>10</b> | <b>15</b> | <b>15</b> | <b>8</b> | <b>2</b> | <b>56</b>     |

\* Standard not assessed

## Reading Blueprint for Grade 11

| <b>Bloom's DOKs</b><br>Item Counts | <i>Low</i>  | <i>Medium</i> |             | <i>High</i>     |              |             | <b>TOTAL<br/>TEST</b> |
|------------------------------------|-------------|---------------|-------------|-----------------|--------------|-------------|-----------------------|
|                                    | <b>Know</b> | <b>Comp</b>   | <b>Appl</b> | <b>Analysis</b> | <b>Synth</b> | <b>Eval</b> |                       |
|                                    | <b>2</b>    | <b>10</b>     | <b>13</b>   | <b>15</b>       | <b>6</b>     | <b>4</b>    |                       |
| <b>Indicator 1</b>                 | <b>1</b>    | <b>2</b>      | <b>3</b>    | <b>1</b>        | <b>0</b>     | <b>0</b>    | <b>7</b>              |
| 1.1 Appl                           | 1           | 2             | 3           | 1               |              |             |                       |
| <b>Indicator 2</b>                 | <b>1</b>    | <b>3</b>      | <b>5</b>    | <b>3</b>        | <b>0</b>     | <b>0</b>    | <b>12</b>             |
| 2.1 Analysis                       |             | 1             | 2           | 3               |              |             |                       |
| 2.2 Appl                           | 1           | 2             | 3           |                 |              |             |                       |
| <b>Indicator 3</b>                 | <b>0</b>    | <b>2</b>      | <b>2</b>    | <b>4</b>        | <b>2</b>     | <b>2</b>    | <b>12</b>             |
| 3.1 Analysis                       |             | 2             | 2           | 4               | 2            | 2           |                       |
| <b>Indicator 4</b>                 | <b>0</b>    | <b>2</b>      | <b>2</b>    | <b>4</b>        | <b>2</b>     | <b>2</b>    | <b>12</b>             |
| 4.1 Analysis                       |             | 2             | 2           | 4               | 2            | 2           |                       |
| <b>Indicator 5</b>                 | <b>0</b>    | <b>1</b>      | <b>1</b>    | <b>3</b>        | <b>2</b>     | <b>0</b>    | <b>7</b>              |
| 5.1 Analysis                       |             | 1             | 1           | 3               | 2            |             |                       |
| <b>Totals</b>                      | <b>2</b>    | <b>10</b>     | <b>13</b>   | <b>15</b>       | <b>6</b>     | <b>4</b>    | <b>50</b>             |

\* Standard not assessed

**Mathematics Blueprint for Grade 3**

| Bloom's DOKs<br>Item Counts | Low        | Medium     |            | High          |            |           | TOTAL<br>TEST |
|-----------------------------|------------|------------|------------|---------------|------------|-----------|---------------|
|                             | Know<br>26 | Comp<br>28 | Appl<br>22 | Analysis<br>8 | Synth<br>0 | Eval<br>0 |               |
| <b>Algebra</b>              | <b>10</b>  | <b>10</b>  | <b>7</b>   | <b>1</b>      | <b>0</b>   | <b>0</b>  | <b>28</b>     |
| <b>Indicator 1</b>          | <b>4</b>   | <b>3</b>   | <b>0</b>   | <b>0</b>      | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| A.1.1 Comp                  | 2          | 2          |            |               |            |           |               |
| A.1.2 Know                  | 2          | 1          |            |               |            |           |               |
| <b>Indicator 2</b>          | <b>2</b>   | <b>3</b>   | <b>2</b>   | <b>0</b>      | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| A.2.1 Comp                  | 1          | 2          |            |               |            |           |               |
| A.2.2 Appl                  | 1          | 1          | 2          |               |            |           |               |
| <b>Indicator 3</b>          | <b>2</b>   | <b>1</b>   | <b>3</b>   | <b>1</b>      | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| A.3.1 Appl                  | 2          | 1          | 3          | 1             |            |           |               |
| <b>Indicator 4</b>          | <b>2</b>   | <b>3</b>   | <b>2</b>   | <b>0</b>      | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| A.4.1 Comp                  | 2          | 2          |            |               |            |           |               |
| A.4.2 Appl                  |            | 1          | 2          |               |            |           |               |
| <b>Geometry</b>             | <b>6</b>   | <b>6</b>   | <b>2</b>   | <b>0</b>      | <b>0</b>   | <b>0</b>  | <b>14</b>     |
| <b>Indicator 1</b>          | <b>4</b>   | <b>3</b>   | <b>0</b>   | <b>0</b>      | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| G.1.1 Comp                  | 2          | 2          |            |               |            |           |               |
| G.1.2 Know                  | 2          | 1          |            |               |            |           |               |
| <b>Indicator 2</b>          | <b>2</b>   | <b>3</b>   | <b>2</b>   | <b>0</b>      | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| G.2.1 Comp                  | 2          | 3          | 2          |               |            |           |               |
| <b>Measurement</b>          | <b>3</b>   | <b>0</b>   | <b>2</b>   | <b>2</b>      | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| <b>Indicator 1</b>          | <b>3</b>   | <b>0</b>   | <b>2</b>   | <b>2</b>      | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| M.1.1 Know                  | 1          |            |            |               |            |           |               |
| M.1.2 Appl                  |            |            | 1          | 1             |            |           |               |
| M.1.3 Know                  | 1          |            |            |               |            |           |               |
| M.1.4 Appl                  |            |            | 1          | 1             |            |           |               |
| M.1.5 Know                  | 1          |            |            |               |            |           |               |
| <b>Number Sense</b>         | <b>4</b>   | <b>7</b>   | <b>6</b>   | <b>4</b>      | <b>0</b>   | <b>0</b>  | <b>21</b>     |
| <b>Indicator 1</b>          | <b>4</b>   | <b>3</b>   | <b>0</b>   | <b>0</b>      | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| N.1.1 Comp                  | 1          | 1          |            |               |            |           |               |
| N.1.2 Comp                  | 1          | 1          |            |               |            |           |               |
| N.1.3 Know                  | 2          | 1          |            |               |            |           |               |
| <b>Indicator 2</b>          | <b>0</b>   | <b>2</b>   | <b>3</b>   | <b>2</b>      | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| N.2.1 Appl                  |            | 2          | 3          | 2             |            |           |               |
| <b>Indicator 3</b>          | <b>0</b>   | <b>2</b>   | <b>3</b>   | <b>2</b>      | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| N.3.1 Appl                  |            | 2          | 3          | 2             |            |           |               |
| <b>Statistics</b>           | <b>3</b>   | <b>5</b>   | <b>5</b>   | <b>1</b>      | <b>0</b>   | <b>0</b>  | <b>14</b>     |
| <b>Indicator 1</b>          | <b>0</b>   | <b>2</b>   | <b>4</b>   | <b>1</b>      | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| S.1.1 Appl                  |            | 1          | 2          | 1             |            |           |               |
| S.1.2 Appl                  |            | 1          | 2          |               |            |           |               |
| <b>Indicator 2</b>          | <b>3</b>   | <b>3</b>   | <b>1</b>   | <b>0</b>      | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| S.2.1 Comp                  | 3          | 3          | 1          |               |            |           |               |
| <b>Totals</b>               | <b>26</b>  | <b>28</b>  | <b>22</b>  | <b>8</b>      | <b>0</b>   | <b>0</b>  | <b>84</b>     |

**Mathematics Blueprint for Grade 4**

| Bloom's DOKs<br>Item Counts | Low       | Medium    |           | High     |          |          | TOTAL<br>TEST |
|-----------------------------|-----------|-----------|-----------|----------|----------|----------|---------------|
|                             | Know      | Comp      | Appl      | Analysis | Synth    | Eval     |               |
|                             | 26        | 24        | 26        | 8        | 0        | 0        |               |
| <b>Algebra</b>              | <b>4</b>  | <b>7</b>  | <b>12</b> | <b>5</b> | <b>0</b> | <b>0</b> | <b>28</b>     |
| <b>Indicator 1</b>          | <b>1</b>  | <b>3</b>  | <b>2</b>  | <b>1</b> | <b>0</b> | <b>0</b> | <b>7</b>      |
| A.1.1 Comp                  | 1         | 1         |           |          |          |          |               |
| A.1.2 Appl                  |           | 1         | 1         |          |          |          |               |
| A.1.3 Appl                  |           | 1         | 1         | 1        |          |          |               |
| <b>Indicator 2</b>          | <b>1</b>  | <b>2</b>  | <b>3</b>  | <b>1</b> | <b>0</b> | <b>0</b> | <b>7</b>      |
| A.2.1 Comp                  | 1         | 1         | 1         |          |          |          |               |
| A.2.2 Appl                  |           | 1         | 2         | 1        |          |          |               |
| <b>Indicator 3</b>          | <b>1</b>  | <b>1</b>  | <b>3</b>  | <b>2</b> | <b>0</b> | <b>0</b> | <b>7</b>      |
| A.3.1 Appl                  | 1         | 1         | 3         | 2        |          |          |               |
| <b>Indicator 4</b>          | <b>1</b>  | <b>1</b>  | <b>4</b>  | <b>1</b> | <b>0</b> | <b>0</b> | <b>7</b>      |
| A.4.1 Appl                  | 1         | 1         | 4         | 1        |          |          |               |
| <b>Geometry</b>             | <b>8</b>  | <b>6</b>  | <b>0</b>  | <b>0</b> | <b>0</b> | <b>0</b> | <b>14</b>     |
| <b>Indicator 1</b>          | <b>4</b>  | <b>3</b>  | <b>0</b>  | <b>0</b> | <b>0</b> | <b>0</b> | <b>7</b>      |
| G.1.1 Know                  | 2         | 2         |           |          |          |          |               |
| G.1.2 Know                  | 2         | 1         |           |          |          |          |               |
| <b>Indicator 2</b>          | <b>4</b>  | <b>3</b>  | <b>0</b>  | <b>0</b> | <b>0</b> | <b>0</b> | <b>7</b>      |
| G.2.1 Comp                  | 2         | 2         |           |          |          |          |               |
| G.2.2 Know                  | 2         | 1         |           |          |          |          |               |
| <b>Measurement</b>          | <b>2</b>  | <b>2</b>  | <b>2</b>  | <b>1</b> | <b>0</b> | <b>0</b> | <b>7</b>      |
| <b>Indicator 1</b>          | <b>2</b>  | <b>2</b>  | <b>2</b>  | <b>1</b> | <b>0</b> | <b>0</b> | <b>7</b>      |
| M.1.1 Know                  | 2         |           |           |          |          |          |               |
| M.1.2 Appl                  |           | 1         | 1         |          |          |          |               |
| M.1.3 Appl                  |           |           | 1         | 1        |          |          |               |
| M.1.4 Comp                  |           | 1         |           |          |          |          |               |
| <b>Number Sense</b>         | <b>6</b>  | <b>5</b>  | <b>8</b>  | <b>2</b> | <b>0</b> | <b>0</b> | <b>21</b>     |
| <b>Indicator 1</b>          | <b>2</b>  | <b>4</b>  | <b>1</b>  | <b>0</b> | <b>0</b> | <b>0</b> | <b>7</b>      |
| N.1.1 Comp                  |           | 1         |           |          |          |          |               |
| N.1.2 Comp                  | 1         | 1         |           |          |          |          |               |
| N.1.3 Comp                  | 1         | 1         |           |          |          |          |               |
| N.1.4 Appl                  |           | 1         | 1         |          |          |          |               |
| <b>Indicator 2</b>          | <b>2</b>  | <b>0</b>  | <b>4</b>  | <b>1</b> | <b>0</b> | <b>0</b> | <b>7</b>      |
| N.2.1 Appl                  | 1         |           | 2         | 1        |          |          |               |
| N.2.2 Appl                  | 1         |           | 2         |          |          |          |               |
| <b>Indicator 3</b>          | <b>2</b>  | <b>1</b>  | <b>3</b>  | <b>1</b> | <b>0</b> | <b>0</b> | <b>7</b>      |
| N.3.1 Appl                  | 2         | 1         | 3         | 1        |          |          |               |
| <b>Statistics</b>           | <b>6</b>  | <b>4</b>  | <b>4</b>  | <b>0</b> | <b>0</b> | <b>0</b> | <b>14</b>     |
| <b>Indicator 1</b>          | <b>3</b>  | <b>2</b>  | <b>2</b>  | <b>0</b> | <b>0</b> | <b>0</b> | <b>7</b>      |
| S.1.1 Appl                  | 1         | 1         | 2         |          |          |          |               |
| S.1.2 Know                  | 2         | 1         |           |          |          |          |               |
| <b>Indicator 2</b>          | <b>3</b>  | <b>2</b>  | <b>2</b>  | <b>0</b> | <b>0</b> | <b>0</b> | <b>7</b>      |
| S.2.1 Comp                  | 3         | 2         | 2         |          |          |          |               |
| <b>Totals</b>               | <b>26</b> | <b>24</b> | <b>26</b> | <b>8</b> | <b>0</b> | <b>0</b> | <b>84</b>     |

**Mathematics Blueprint for Grade 5**

| Bloom's DOKs<br>Item Counts | Low       | Medium    |           | High      |          |          | TOTAL<br>TEST |
|-----------------------------|-----------|-----------|-----------|-----------|----------|----------|---------------|
|                             | Know      | Comp      | Appl      | Analysis  | Synth    | Eval     |               |
|                             | 21        | 20        | 30        | 13        | 0        | 0        |               |
| <b>Algebra</b>              | <b>0</b>  | <b>8</b>  | <b>13</b> | <b>7</b>  | <b>0</b> | <b>0</b> | <b>28</b>     |
| <b>Indicator 1</b>          | <b>0</b>  | <b>2</b>  | <b>3</b>  | <b>2</b>  | <b>0</b> | <b>0</b> | <b>7</b>      |
| A.1.1 Appl                  |           | 1         | 1         | 1         |          |          |               |
| A.1.2 Appl                  |           | 1         | 2         | 1         |          |          |               |
| <b>Indicator 2</b>          | <b>0</b>  | <b>2</b>  | <b>3</b>  | <b>2</b>  | <b>0</b> | <b>0</b> | <b>7</b>      |
| A.2.1 Appl                  |           | 2         | 3         | 2         |          |          |               |
| <b>Indicator 3</b>          | <b>0</b>  | <b>2</b>  | <b>4</b>  | <b>1</b>  | <b>0</b> | <b>0</b> | <b>7</b>      |
| A.3.1 Appl                  |           | 1         | 2         | 1         |          |          |               |
| A.3.2 Appl                  |           | 1         | 2         |           |          |          |               |
| <b>Indicator 4</b>          | <b>0</b>  | <b>2</b>  | <b>3</b>  | <b>2</b>  | <b>0</b> | <b>0</b> | <b>7</b>      |
| A.4.1 Appl                  |           | 2         | 3         | 2         |          |          |               |
| <b>Geometry</b>             | <b>10</b> | <b>3</b>  | <b>1</b>  | <b>0</b>  | <b>0</b> | <b>0</b> | <b>14</b>     |
| <b>Indicator 1</b>          | <b>6</b>  | <b>1</b>  | <b>0</b>  | <b>0</b>  | <b>0</b> | <b>0</b> | <b>7</b>      |
| G.1.1 Know                  | 3         | 1         |           |           |          |          |               |
| G.1.2 Know                  | 3         |           |           |           |          |          |               |
| <b>Indicator 2</b>          | <b>4</b>  | <b>2</b>  | <b>1</b>  | <b>0</b>  | <b>0</b> | <b>0</b> | <b>7</b>      |
| G.2.1 Comp                  | 1         | 1         |           |           |          |          |               |
| G.2.2 Know                  | 3         |           |           |           |          |          |               |
| G.2.3 Appl                  |           | 1         | 1         |           |          |          |               |
| <b>Measurement</b>          | <b>1</b>  | <b>1</b>  | <b>3</b>  | <b>2</b>  | <b>0</b> | <b>0</b> | <b>7</b>      |
| <b>Indicator 1</b>          | <b>1</b>  | <b>1</b>  | <b>3</b>  | <b>2</b>  | <b>0</b> | <b>0</b> | <b>7</b>      |
| M.1.1 Comp                  | 1         | 1         |           |           |          |          |               |
| M.1.2 Appl                  |           |           | 1         |           |          |          |               |
| M.1.3 Appl                  |           |           | 1         | 1         |          |          |               |
| M.1.4 Appl                  |           |           | 1         | 1         |          |          |               |
| <b>Number Sense</b>         | <b>5</b>  | <b>7</b>  | <b>7</b>  | <b>2</b>  | <b>0</b> | <b>0</b> | <b>21</b>     |
| <b>Indicator 1</b>          | <b>2</b>  | <b>4</b>  | <b>1</b>  | <b>0</b>  | <b>0</b> | <b>0</b> | <b>7</b>      |
| N.1.1 Comp                  |           | 1         | 1         |           |          |          |               |
| N.1.2 Comp                  |           | 1         |           |           |          |          |               |
| N.1.3 Know                  | 2         |           |           |           |          |          |               |
| N.1.4 Comp                  |           | 1         |           |           |          |          |               |
| N.N.5 Comp                  |           | 1         |           |           |          |          |               |
| <b>Indicator 2</b>          | <b>1</b>  | <b>2</b>  | <b>3</b>  | <b>1</b>  | <b>0</b> | <b>0</b> | <b>7</b>      |
| N.2.1 Appl                  |           | 1         | 1         |           |          |          |               |
| N.2.2 Appl                  |           | 1         | 1         |           |          |          |               |
| N.2.3 Appl                  | 1         |           | 1         | 1         |          |          |               |
| <b>Indicator 3</b>          | <b>2</b>  | <b>1</b>  | <b>3</b>  | <b>1</b>  | <b>0</b> | <b>0</b> | <b>7</b>      |
| N.3.1 Appl                  | 2         | 1         | 3         | 1         |          |          |               |
| <b>Statistics</b>           | <b>5</b>  | <b>1</b>  | <b>6</b>  | <b>2</b>  | <b>0</b> | <b>0</b> | <b>14</b>     |
| <b>Indicator 1</b>          | <b>2</b>  | <b>1</b>  | <b>2</b>  | <b>2</b>  | <b>0</b> | <b>0</b> | <b>7</b>      |
| S.1.1 Appl                  | 1         | 1         | 1         | 1         |          |          |               |
| S.1.2 Appl                  | 1         |           | 1         | 1         |          |          |               |
| <b>Indicator 2</b>          | <b>3</b>  | <b>0</b>  | <b>4</b>  | <b>0</b>  | <b>0</b> | <b>0</b> | <b>7</b>      |
| S.2.1 Appl                  | 2         |           | 2         |           |          |          |               |
| S.2.2 Appl                  | 1         |           | 2         |           |          |          |               |
| <b>Totals</b>               | <b>21</b> | <b>20</b> | <b>30</b> | <b>13</b> | <b>0</b> | <b>0</b> | <b>84</b>     |

**Mathematics Blueprint for Grade 6**

| Bloom's DOKs<br>Item Counts | Low       | Medium    |           | High      |          |          | TOTAL<br>TEST |
|-----------------------------|-----------|-----------|-----------|-----------|----------|----------|---------------|
|                             | Know      | Comp      | Appl      | Analysis  | Synth    | Eval     |               |
|                             | 21        | 26        | 21        | 16        | 0        | 0        |               |
| <b>Algebra</b>              | <b>6</b>  | <b>6</b>  | <b>9</b>  | <b>7</b>  | <b>0</b> | <b>0</b> | <b>28</b>     |
| <b>Indicator 1</b>          | <b>0</b>  | <b>0</b>  | <b>4</b>  | <b>3</b>  | <b>0</b> | <b>0</b> | <b>7</b>      |
| A.1.1 Appl                  |           |           | 2         | 1         |          |          |               |
| A.1.2 Appl                  |           |           | 2         | 2         |          |          |               |
| <b>Indicator 2</b>          | <b>1</b>  | <b>2</b>  | <b>2</b>  | <b>2</b>  | <b>0</b> | <b>0</b> | <b>7</b>      |
| A.2.1 Appl                  | 1         | 2         | 2         | 2         |          |          |               |
| <b>Indicator 3</b>          | <b>3</b>  | <b>2</b>  | <b>1</b>  | <b>1</b>  | <b>0</b> | <b>0</b> | <b>7</b>      |
| A.3.1 Know                  | 2         | 1         |           |           |          |          |               |
| A.3.2 Appl                  | 1         | 1         | 1         | 1         |          |          |               |
| <b>Indicator 4</b>          | <b>2</b>  | <b>2</b>  | <b>2</b>  | <b>1</b>  | <b>0</b> | <b>0</b> | <b>7</b>      |
| A.4.1 Comp                  | 2         | 2         | 2         | 1         |          |          |               |
| <b>Geometry</b>             | <b>3</b>  | <b>6</b>  | <b>3</b>  | <b>2</b>  | <b>0</b> | <b>0</b> | <b>14</b>     |
| <b>Indicator 1</b>          | <b>2</b>  | <b>4</b>  | <b>1</b>  | <b>0</b>  | <b>0</b> | <b>0</b> | <b>7</b>      |
| G.1.1 Comp                  | 1         | 2         | 1         |           |          |          |               |
| G.1.2 Comp                  | 1         | 2         |           |           |          |          |               |
| <b>Indicator 2</b>          | <b>1</b>  | <b>2</b>  | <b>2</b>  | <b>2</b>  | <b>0</b> | <b>0</b> | <b>7</b>      |
| G.2.1 Appl                  | 1         | 2         | 2         | 2         |          |          |               |
| <b>Measurement</b>          | <b>1</b>  | <b>4</b>  | <b>1</b>  | <b>1</b>  | <b>0</b> | <b>0</b> | <b>7</b>      |
| <b>Indicator 1</b>          | <b>1</b>  | <b>4</b>  | <b>1</b>  | <b>1</b>  | <b>0</b> | <b>0</b> | <b>7</b>      |
| M.1.1 Comp                  |           | 2         | 1         | 1         |          |          |               |
| M.1.2 Comp                  | 1         | 2         |           |           |          |          |               |
| <b>Number Sense</b>         | <b>7</b>  | <b>6</b>  | <b>5</b>  | <b>3</b>  | <b>0</b> | <b>0</b> | <b>21</b>     |
| <b>Indicator 1</b>          | <b>4</b>  | <b>2</b>  | <b>1</b>  | <b>0</b>  | <b>0</b> | <b>0</b> | <b>7</b>      |
| N.1.1 Comp                  | 1         | 2         | 1         |           |          |          |               |
| N.1.2 Know                  | 3         |           |           |           |          |          |               |
| <b>Indicator 2</b>          | <b>2</b>  | <b>2</b>  | <b>2</b>  | <b>1</b>  | <b>0</b> | <b>0</b> | <b>7</b>      |
| N.2.1 Comp                  | 2         | 2         | 2         | 1         |          |          |               |
| <b>Indicator 3</b>          | <b>1</b>  | <b>2</b>  | <b>2</b>  | <b>2</b>  | <b>0</b> | <b>0</b> | <b>7</b>      |
| N.3.1 Appl                  | 1         | 2         | 2         | 2         |          |          |               |
| <b>Statistics</b>           | <b>4</b>  | <b>4</b>  | <b>3</b>  | <b>3</b>  | <b>0</b> | <b>0</b> | <b>14</b>     |
| <b>Indicator 1</b>          | <b>1</b>  | <b>2</b>  | <b>2</b>  | <b>2</b>  | <b>0</b> | <b>0</b> | <b>7</b>      |
| S.1.1 Comp                  | 1         | 2         |           |           |          |          |               |
| S.1.2 Appl                  |           |           | 2         | 2         |          |          |               |
| <b>Indicator 2</b>          | <b>3</b>  | <b>2</b>  | <b>1</b>  | <b>1</b>  | <b>0</b> | <b>0</b> | <b>7</b>      |
| S.2.1 Know                  | 3         | 2         | 1         | 1         |          |          |               |
| <b>Totals</b>               | <b>21</b> | <b>26</b> | <b>21</b> | <b>16</b> | <b>0</b> | <b>0</b> | <b>84</b>     |

**Mathematics Blueprint for Grade 7**

| Bloom's DOKs<br>Item Counts | Low        | Medium     |            | High           |            |           | TOTAL<br>TEST |
|-----------------------------|------------|------------|------------|----------------|------------|-----------|---------------|
|                             | Know<br>17 | Comp<br>24 | Appl<br>22 | Analysis<br>21 | Synth<br>0 | Eval<br>0 |               |
| <b>Algebra</b>              | <b>2</b>   | <b>8</b>   | <b>9</b>   | <b>9</b>       | <b>0</b>   | <b>0</b>  | <b>28</b>     |
| <b>Indicator 1</b>          | <b>2</b>   | <b>2</b>   | <b>2</b>   | <b>1</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| A.1.1 Appl                  |            | 1          | 2          | 1              |            |           |               |
| A.1.2 Know                  | 2          | 1          |            |                |            |           |               |
| <b>Indicator 2</b>          | <b>0</b>   | <b>2</b>   | <b>2</b>   | <b>3</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| A.2.1 Appl                  |            | 2          | 2          | 3              |            |           |               |
| <b>Indicator 3</b>          | <b>0</b>   | <b>2</b>   | <b>3</b>   | <b>2</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| A.3.1 Appl                  |            | 1          | 1          | 1              |            |           |               |
| A.3.2 Appl                  |            | 1          | 2          | 1              |            |           |               |
| <b>Indicator 4</b>          | <b>0</b>   | <b>2</b>   | <b>2</b>   | <b>3</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| A.4.1 Appl                  |            | 2          | 2          | 3              |            |           |               |
| <b>Geometry</b>             | <b>3</b>   | <b>4</b>   | <b>3</b>   | <b>4</b>       | <b>0</b>   | <b>0</b>  | <b>14</b>     |
| <b>Indicator 1</b>          | <b>3</b>   | <b>2</b>   | <b>1</b>   | <b>1</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| G.1.1 Appl                  | 1          | 1          | 1          | 1              |            |           |               |
| G.1.2 Know                  | 2          | 1          |            |                |            |           |               |
| <b>Indicator 2</b>          | <b>0</b>   | <b>2</b>   | <b>2</b>   | <b>3</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| G.2.1 Appl                  |            | 2          | 2          | 3              |            |           |               |
| <b>Measurement</b>          | <b>3</b>   | <b>4</b>   | <b>0</b>   | <b>0</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| <b>Indicator 1</b>          | <b>3</b>   | <b>4</b>   | <b>0</b>   | <b>0</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| M.1.1 Comp                  | 2          | 2          |            |                |            |           |               |
| M.1.2 Comp                  | 1          | 2          |            |                |            |           |               |
| <b>Number Sense</b>         | <b>5</b>   | <b>4</b>   | <b>7</b>   | <b>5</b>       | <b>0</b>   | <b>0</b>  | <b>21</b>     |
| <b>Indicator 1</b>          | <b>2</b>   | <b>2</b>   | <b>2</b>   | <b>1</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| N.1.1 Comp                  | 2          | 1          | 1          |                |            |           |               |
| N.1.2 Appl                  |            | 1          | 1          | 1              |            |           |               |
| <b>Indicator 2</b>          | <b>2</b>   | <b>1</b>   | <b>2</b>   | <b>2</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| N.2.1 Appl                  | 2          | 1          | 2          | 2              |            |           |               |
| <b>Indicator 3</b>          | <b>1</b>   | <b>1</b>   | <b>3</b>   | <b>2</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| N.3.1 Appl                  | 1          | 1          | 3          | 2              |            |           |               |
| <b>Statistics</b>           | <b>4</b>   | <b>4</b>   | <b>3</b>   | <b>3</b>       | <b>0</b>   | <b>0</b>  | <b>14</b>     |
| <b>Indicator 1</b>          | <b>1</b>   | <b>2</b>   | <b>2</b>   | <b>2</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| S.1.1 Comp                  | 1          | 2          |            |                |            |           |               |
| S.1.2 Appl                  |            |            | 2          | 2              |            |           |               |
| <b>Indicator 2</b>          | <b>3</b>   | <b>2</b>   | <b>1</b>   | <b>1</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| S.2.1 Comp                  | 3          | 2          | 1          | 1              |            |           |               |
| <b>Totals</b>               | <b>17</b>  | <b>24</b>  | <b>22</b>  | <b>21</b>      | <b>0</b>   | <b>0</b>  | <b>84</b>     |

**Mathematics Blueprint for Grade 8**

| Bloom's DOKs<br>Item Counts | Low        | Medium     |            | High           |            |           | TOTAL<br>TEST |
|-----------------------------|------------|------------|------------|----------------|------------|-----------|---------------|
|                             | Know<br>17 | Comp<br>22 | Appl<br>24 | Analysis<br>19 | Synth<br>2 | Eval<br>0 |               |
| <b>Algebra</b>              | <b>4</b>   | <b>6</b>   | <b>8</b>   | <b>8</b>       | <b>2</b>   | <b>0</b>  | <b>28</b>     |
| <b>Indicator 1</b>          | <b>1</b>   | <b>2</b>   | <b>2</b>   | <b>2</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| A.1.1 Appl                  | 1          | 2          | 2          | 2              |            |           |               |
| <b>Indicator 2</b>          | <b>1</b>   | <b>2</b>   | <b>2</b>   | <b>2</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| A.2.1 Appl                  | 1          | 2          | 2          | 2              |            |           |               |
| <b>Indicator 3</b>          | <b>2</b>   | <b>2</b>   | <b>2</b>   | <b>1</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| A.3.1 Comp                  | 2          | 2          | 2          | 1              |            |           |               |
| <b>Indicator 4</b>          | <b>0</b>   | <b>0</b>   | <b>2</b>   | <b>3</b>       | <b>2</b>   | <b>0</b>  | <b>7</b>      |
| A.4.1 Synth                 |            |            | 1          | 1              | 2          |           |               |
| A.4.2 Analy                 |            |            | 1          | 2              |            |           |               |
| <b>Geometry</b>             | <b>2</b>   | <b>4</b>   | <b>4</b>   | <b>4</b>       | <b>0</b>   | <b>0</b>  | <b>14</b>     |
| <b>Indicator 1</b>          | <b>1</b>   | <b>2</b>   | <b>2</b>   | <b>2</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| G.1.1 Appl                  | 1          | 1          | 1          | 1              |            |           |               |
| G.1.2 Appl                  |            | 1          | 1          | 1              |            |           |               |
| <b>Indicator 2</b>          | <b>1</b>   | <b>2</b>   | <b>2</b>   | <b>2</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| G.2.1 Appl                  | 1          | 2          | 2          | 2              |            |           |               |
| <b>Measurement</b>          | <b>2</b>   | <b>2</b>   | <b>2</b>   | <b>1</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| <b>Indicator 1</b>          | <b>2</b>   | <b>2</b>   | <b>2</b>   | <b>1</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| M.1.1 Appl                  | 1          | 1          | 1          | 1              |            |           |               |
| M.1.2 Comp                  | 1          | 1          | 1          |                |            |           |               |
| <b>Number Sense</b>         | <b>5</b>   | <b>6</b>   | <b>6</b>   | <b>4</b>       | <b>0</b>   | <b>0</b>  | <b>21</b>     |
| <b>Indicator 1</b>          | <b>3</b>   | <b>2</b>   | <b>2</b>   | <b>0</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| N.1.1 Comp                  | 3          | 2          | 2          |                |            |           |               |
| <b>Indicator 2</b>          | <b>1</b>   | <b>2</b>   | <b>2</b>   | <b>2</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| N.2.1 Appl                  | 1          | 2          | 2          | 2              |            |           |               |
| <b>Indicator 3</b>          | <b>1</b>   | <b>2</b>   | <b>2</b>   | <b>2</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| N.3.1 Appl                  | 1          | 2          | 2          | 2              |            |           |               |
| <b>Statistics</b>           | <b>4</b>   | <b>4</b>   | <b>4</b>   | <b>2</b>       | <b>0</b>   | <b>0</b>  | <b>14</b>     |
| <b>Indicator 1</b>          | <b>2</b>   | <b>2</b>   | <b>2</b>   | <b>1</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| S.1.1 Comp                  | 2          | 1          | 1          |                |            |           |               |
| S.1.2 Appl                  |            | 1          | 1          | 1              |            |           |               |
| <b>Indicator 2</b>          | <b>2</b>   | <b>2</b>   | <b>2</b>   | <b>1</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| S.2.1 Comp                  | 2          | 2          | 2          | 1              |            |           |               |
| <b>Totals</b>               | <b>17</b>  | <b>22</b>  | <b>24</b>  | <b>19</b>      | <b>2</b>   | <b>0</b>  | <b>84</b>     |

**Mathematics Blueprint for Grade 11**

| Bloom's DOKs<br>Item Counts | Low        | Medium     |            | High           |            |           | TOTAL<br>TEST |
|-----------------------------|------------|------------|------------|----------------|------------|-----------|---------------|
|                             | Know<br>13 | Comp<br>20 | Appl<br>22 | Analysis<br>28 | Synth<br>1 | Eval<br>0 |               |
| <b>Algebra</b>              | <b>2</b>   | <b>8</b>   | <b>10</b>  | <b>8</b>       | <b>0</b>   | <b>0</b>  | <b>28</b>     |
| <b>Indicator 1</b>          | <b>1</b>   | <b>2</b>   | <b>2</b>   | <b>2</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| A.1.1 Comp                  | 1          | 2          | 2          | 2              |            |           |               |
| <b>Indicator 2</b>          | <b>0</b>   | <b>2</b>   | <b>3</b>   | <b>2</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| A.2.1 Comp                  |            | 1          | 1          | 1              |            |           |               |
| A.2.2 Appl                  |            | 1          | 2          | 1              |            |           |               |
| <b>Indicator 3</b>          | <b>0</b>   | <b>2</b>   | <b>3</b>   | <b>2</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| A.3.1 Appl                  |            | 1          | 2          | 1              |            |           |               |
| A.3.2 Comp                  |            | 1          | 1          | 1              |            |           |               |
| <b>Indicator 4</b>          | <b>1</b>   | <b>2</b>   | <b>2</b>   | <b>2</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| A.4.1 Appl                  | 1          | 2          | 2          | 2              |            |           |               |
| <b>Geometry</b>             | <b>0</b>   | <b>0</b>   | <b>5</b>   | <b>8</b>       | <b>1</b>   | <b>0</b>  | <b>14</b>     |
| <b>Indicator 1</b>          | <b>0</b>   | <b>0</b>   | <b>3</b>   | <b>4</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| G.1.1 Appl                  |            |            | 1          | 2              |            |           |               |
| G.1.2 Appl                  |            |            | 2          | 2              |            |           |               |
| <b>Indicator 2</b>          | <b>0</b>   | <b>0</b>   | <b>2</b>   | <b>4</b>       | <b>1</b>   | <b>0</b>  | <b>7</b>      |
| G.2.1 Analy                 |            |            |            | 2              | 1          |           |               |
| G.2.2 Appl                  |            |            | 1          | 1              |            |           |               |
| G.2.3 Appl                  |            |            | 1          | 1              |            |           |               |
| <b>Measurement</b>          | <b>2</b>   | <b>2</b>   | <b>1</b>   | <b>2</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| <b>Indicator 1</b>          | <b>2</b>   | <b>2</b>   | <b>1</b>   | <b>2</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| M.1.1 Comp                  | 1          | 1          |            |                |            |           |               |
| M.1.2 Comp                  | 1          | 1          |            |                |            |           |               |
| M.1.3 Appl                  |            |            | 1          | 2              |            |           |               |
| <b>Number Sense</b>         | <b>5</b>   | <b>7</b>   | <b>4</b>   | <b>5</b>       | <b>0</b>   | <b>0</b>  | <b>21</b>     |
| <b>Indicator 1</b>          | <b>3</b>   | <b>4</b>   | <b>0</b>   | <b>0</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| N.1.1 Comp                  | 2          | 2          |            |                |            |           |               |
| N.1.2 Comp                  | 1          | 2          |            |                |            |           |               |
| <b>Indicator 2</b>          | <b>1</b>   | <b>2</b>   | <b>2</b>   | <b>2</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| N.2.1 Comp                  | 1          | 2          | 2          | 2              |            |           |               |
| <b>Indicator 3</b>          | <b>1</b>   | <b>1</b>   | <b>2</b>   | <b>3</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| N.3.1 Analy                 |            |            | 1          | 2              |            |           |               |
| N.3.2 Comp                  | 1          | 1          | 1          | 1              |            |           |               |
| <b>Statistics</b>           | <b>4</b>   | <b>3</b>   | <b>2</b>   | <b>5</b>       | <b>0</b>   | <b>0</b>  | <b>14</b>     |
| <b>Indicator 1</b>          | <b>1</b>   | <b>1</b>   | <b>1</b>   | <b>4</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| S.1.1 Analy                 |            |            |            | 2              |            |           |               |
| S.1.2 Comp                  | 1          | 1          | 1          |                |            |           |               |
| S.1.3 Analy                 |            |            |            | 2              |            |           |               |
| <b>Indicator 2</b>          | <b>3</b>   | <b>2</b>   | <b>1</b>   | <b>1</b>       | <b>0</b>   | <b>0</b>  | <b>7</b>      |
| S.2.1 Know                  | 2          | 1          |            |                |            |           |               |
| S.2.2 Comp                  | 1          | 1          | 1          | 1              |            |           |               |
| <b>Totals</b>               | <b>13</b>  | <b>20</b>  | <b>22</b>  | <b>28</b>      | <b>1</b>   | <b>0</b>  | <b>84</b>     |

## Science Blueprint for Grade 5

| Bloom's DOKs<br>Item Counts | Low       | Medium    |           | High     |          |          | TOTAL<br>TEST |
|-----------------------------|-----------|-----------|-----------|----------|----------|----------|---------------|
|                             | Know      | Comp      | Appl      | Analysis | Synth    | Eval     |               |
|                             | 17        | 24        | 15        | 6        | 2        | 6        |               |
| <b>Physical Science</b>     | <b>7</b>  | <b>6</b>  | <b>4</b>  | <b>3</b> | <b>1</b> | <b>0</b> | <b>21</b>     |
| <b>Indicator 1</b>          | <b>3</b>  | <b>2</b>  | <b>2</b>  | <b>0</b> | <b>0</b> | <b>0</b> | <b>7</b>      |
| P.1.1 Know                  | 3         | 2         | 2         |          |          |          |               |
| <b>Indicator 2</b>          | <b>2</b>  | <b>1</b>  | <b>1</b>  | <b>2</b> | <b>1</b> | <b>0</b> | <b>7</b>      |
| P.2.1 Know                  | 2         | 1         |           |          |          |          |               |
| P.2.2 Analysis              |           |           | 1         | 2        | 1        |          |               |
| <b>Indicator 3</b>          | <b>2</b>  | <b>3</b>  | <b>1</b>  | <b>1</b> | <b>0</b> | <b>0</b> | <b>7</b>      |
| P.3.1 Appl                  |           | 1         | 1         | 1        |          |          |               |
| P.3.2 Comp                  | 1         | 1         |           |          |          |          |               |
| P.3.3 Comp                  | 1         | 1         |           |          |          |          |               |
| <b>Life Science</b>         | <b>5</b>  | <b>7</b>  | <b>5</b>  | <b>2</b> | <b>0</b> | <b>2</b> | <b>21</b>     |
| <b>Indicator 1</b>          | <b>2</b>  | <b>2</b>  | <b>2</b>  | <b>1</b> | <b>0</b> | <b>0</b> | <b>7</b>      |
| L.1.1 Comp                  | 2         | 2         | 2         | 1        |          |          |               |
| <b>Indicator 2</b>          | <b>1</b>  | <b>2</b>  | <b>1</b>  | <b>1</b> | <b>0</b> | <b>2</b> | <b>7</b>      |
| L.2.1 Eval                  |           |           |           | 1        |          | 2        |               |
| L.2.2 Comp                  | 1         | 2         | 1         |          |          |          |               |
| <b>Indicator 3</b>          | <b>2</b>  | <b>3</b>  | <b>2</b>  | <b>0</b> | <b>0</b> | <b>0</b> | <b>7</b>      |
| L.3.1 Comp                  | 1         | 1         |           |          |          |          |               |
| L.3.2 Appl                  |           | 1         | 1         |          |          |          |               |
| L.3.3 Comp                  | 1         | 1         | 1         |          |          |          |               |
| <b>Earth/Space Sci</b>      | <b>3</b>  | <b>7</b>  | <b>4</b>  | <b>0</b> | <b>0</b> | <b>0</b> | <b>14</b>     |
| <b>Indicator 1</b>          | <b>2</b>  | <b>3</b>  | <b>2</b>  | <b>0</b> | <b>0</b> | <b>0</b> | <b>7</b>      |
| E.1.1 Comp                  | 2         | 3         | 2         |          |          |          |               |
| <b>Indicator 1</b>          | <b>1</b>  | <b>4</b>  | <b>2</b>  | <b>0</b> | <b>0</b> | <b>0</b> | <b>7</b>      |
| E.2.1 Comp                  | 1         | 2         | 1         |          |          |          |               |
| E.2.2 Comp                  |           | 2         | 1         |          |          |          |               |
| <b>Sci/Tech/Envrn</b>       | <b>2</b>  | <b>4</b>  | <b>2</b>  | <b>1</b> | <b>1</b> | <b>4</b> | <b>14</b>     |
| <b>Indicator 1</b>          | <b>2</b>  | <b>4</b>  | <b>1</b>  | <b>0</b> | <b>0</b> | <b>0</b> | <b>7</b>      |
| S.1.1 Know                  | 2         | 2         |           |          |          |          |               |
| S.1.2 Comp                  |           | 2         | 1         |          |          |          |               |
| <b>Indicator 2</b>          | <b>0</b>  | <b>0</b>  | <b>1</b>  | <b>1</b> | <b>1</b> | <b>4</b> | <b>7</b>      |
| S.2.1 Eval                  |           |           | 1         | 1        | 1        | 4        |               |
| <b>Totals</b>               | <b>17</b> | <b>24</b> | <b>15</b> | <b>6</b> | <b>2</b> | <b>6</b> | <b>70</b>     |

## Science Blueprint for Grade 8

| Bloom's DOKs<br>Item Counts | Low       | Medium    |           | High      |          |          | TOTAL<br>TEST |
|-----------------------------|-----------|-----------|-----------|-----------|----------|----------|---------------|
|                             | Know      | Comp      | Appl      | Analysis  | Synth    | Eval     |               |
|                             | 14        | 15        | 20        | 13        | 8        | 0        |               |
| <b>Nature of Science</b>    | <b>4</b>  | <b>4</b>  | <b>2</b>  | <b>0</b>  | <b>4</b> | <b>0</b> | <b>14</b>     |
| <b>Indicator 1</b>          | <b>3</b>  | <b>3</b>  | <b>1</b>  | <b>0</b>  | <b>0</b> | <b>0</b> | <b>7</b>      |
| N.1.1 Comp                  | 3         | 3         | 1         |           |          |          |               |
| <b>Indicator 2</b>          | <b>1</b>  | <b>1</b>  | <b>1</b>  | <b>0</b>  | <b>4</b> | <b>0</b> | <b>7</b>      |
| N.2.1 Synth                 | 1         | 1         | 1         |           | 4        |          |               |
| <b>Physical Science</b>     | <b>4</b>  | <b>3</b>  | <b>5</b>  | <b>2</b>  | <b>0</b> | <b>0</b> | <b>14</b>     |
| <b>Indicator 1</b>          | <b>4</b>  | <b>3</b>  | <b>5</b>  | <b>2</b>  | <b>0</b> | <b>0</b> | <b>14</b>     |
| P.1.1 Analysis              |           | 1         | 1         | 2         |          |          |               |
| P.1.2 Appl                  | 2         |           | 3         |           |          |          |               |
| P.1.3 Comp                  | 2         | 2         | 1         |           |          |          |               |
| <b>Earth/Space Sci</b>      | <b>4</b>  | <b>4</b>  | <b>10</b> | <b>10</b> | <b>0</b> | <b>0</b> | <b>28</b>     |
| <b>Indicator 1</b>          | <b>4</b>  | <b>3</b>  | <b>8</b>  | <b>6</b>  | <b>0</b> | <b>0</b> | <b>21</b>     |
| E.1.1 Appl                  | 2         |           | 3         |           |          |          |               |
| E.1.2 Analysis              |           | 1         | 1         | 2         |          |          |               |
| E.1.3 Analysis              |           | 1         | 1         | 2         |          |          |               |
| E.1.4 Appl                  | 2         |           | 2         |           |          |          |               |
| E.1.5 Analysis              |           | 1         | 1         | 2         |          |          |               |
| <b>Indicator 2</b>          | <b>0</b>  | <b>1</b>  | <b>2</b>  | <b>4</b>  | <b>0</b> | <b>0</b> | <b>7</b>      |
| E.2.1 Analysis              |           | 1         | 1         | 2         |          |          |               |
| E.2.2 Analysis              |           |           | 1         | 2         |          |          |               |
| <b>Sci/Tech/Envrn</b>       | <b>2</b>  | <b>4</b>  | <b>3</b>  | <b>1</b>  | <b>4</b> | <b>0</b> | <b>14</b>     |
| <b>Indicator 1</b>          | <b>2</b>  | <b>3</b>  | <b>2</b>  | <b>0</b>  | <b>0</b> | <b>0</b> | <b>7</b>      |
| S.1.1 Comp                  | 2         | 3         | 2         |           |          |          |               |
| <b>Indicator 2</b>          | <b>0</b>  | <b>1</b>  | <b>1</b>  | <b>1</b>  | <b>4</b> | <b>0</b> | <b>7</b>      |
| S.2.1 Synth                 |           | 1         | 1         | 1         | 4        |          |               |
| <b>Totals</b>               | <b>14</b> | <b>15</b> | <b>20</b> | <b>13</b> | <b>8</b> | <b>0</b> | <b>70</b>     |

## Science Blueprint for Grade 11

| Bloom's DOKs<br>Item Counts | Low      | Medium   |          | High     |          |          | TOTAL<br>TEST |
|-----------------------------|----------|----------|----------|----------|----------|----------|---------------|
|                             | Know     | Comp     | Appl     | Analysis | Synth    | Eval     |               |
|                             | 13       | 16       | 22       | 16       | 11       | 6        |               |
| <b>Nature of Science</b>    | <b>1</b> | <b>1</b> | <b>3</b> | <b>2</b> | <b>5</b> | <b>2</b> | <b>14</b>     |
| <b>Indicator 1</b>          | <b>0</b> | <b>0</b> | <b>1</b> | <b>1</b> | <b>3</b> | <b>2</b> | <b>7</b>      |
| N.1.1 Eval                  |          |          |          |          | 1        | 2        |               |
| N.1.2 Synth                 |          |          | 1        | 1        | 2        |          |               |
| <b>Indicator 2</b>          | <b>1</b> | <b>1</b> | <b>2</b> | <b>1</b> | <b>2</b> | <b>0</b> | <b>7</b>      |
| N.2.1 Synth                 |          |          |          | 1        | 2        |          |               |
| N.2.2 Appl                  | 1        | 1        | 2        |          |          |          |               |
| <b>Physical Science</b>     | <b>3</b> | <b>5</b> | <b>9</b> | <b>4</b> | <b>0</b> | <b>0</b> | <b>21</b>     |
| <b>Indicator 1</b>          | <b>0</b> | <b>2</b> | <b>3</b> | <b>2</b> | <b>0</b> | <b>0</b> | <b>7</b>      |
| P.1.1 Analysis              |          |          |          | 2        |          |          |               |
| P.1.2 Comp                  |          | 1        | 1        |          |          |          |               |
| P.1.3 Appl                  |          |          | 1        |          |          |          |               |
| P.1.4 Appl                  |          |          | 1        |          |          |          |               |
| P.1.5 Comp                  |          | 1        |          |          |          |          |               |
| <b>Indicator 2</b>          | <b>0</b> | <b>2</b> | <b>3</b> | <b>2</b> | <b>0</b> | <b>0</b> | <b>7</b>      |
| P.2.1 Analysis              |          |          | 1        | 2        |          |          |               |
| P.2.2 Appl                  |          | 1        | 1        |          |          |          |               |
| P.2.3 Appl                  |          | 1        | 1        |          |          |          |               |
| <b>Indicator 3</b>          | <b>3</b> | <b>1</b> | <b>3</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>7</b>      |
| P.3.1 Appl                  | 1        |          | 2        |          |          |          |               |
| P.3.2 Comp                  | 1        | 1        |          |          |          |          |               |
| P.3.3 Appl                  | 1        |          | 1        |          |          |          |               |
| <b>Life Science</b>         | <b>3</b> | <b>6</b> | <b>4</b> | <b>5</b> | <b>2</b> | <b>1</b> | <b>21</b>     |
| <b>Indicator 1</b>          | <b>0</b> | <b>1</b> | <b>2</b> | <b>4</b> | <b>0</b> | <b>0</b> | <b>7</b>      |
| L.1.1 Analysis              |          |          |          | 2        |          |          |               |
| L.1.2 Appl                  |          | 1        | 2        |          |          |          |               |
| L.1.3 Analysis              |          |          |          | 2        |          |          |               |
| <b>Indicator 2</b>          | <b>0</b> | <b>1</b> | <b>2</b> | <b>1</b> | <b>2</b> | <b>1</b> | <b>7</b>      |
| L.2.1 Appl                  |          | 1        | 2        |          |          |          |               |
| L.2.2 Synth                 |          |          |          | 1        | 2        | 1        |               |
| <b>Indicator 3</b>          | <b>3</b> | <b>4</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>0</b> | <b>7</b>      |
| L.3.1 Comp                  | 3        | 4        |          |          |          |          |               |

**Science Blueprint for Grade 11 (continued)**

|                        |           |           |           |           |           |          |           |
|------------------------|-----------|-----------|-----------|-----------|-----------|----------|-----------|
| <b>Earth/Space Sci</b> | <b>4</b>  | <b>4</b>  | <b>4</b>  | <b>2</b>  | <b>0</b>  | <b>0</b> | <b>14</b> |
| <b>Indicator 1</b>     | <b>2</b>  | <b>2</b>  | <b>2</b>  | <b>1</b>  | <b>0</b>  | <b>0</b> | <b>7</b>  |
| E.1.1 Comp             | 1         | 1         |           |           |           |          |           |
| E.1.2 Appl             | 1         | 1         | 1         |           |           |          |           |
| E.1.3 Analysis         |           |           | 1         | 1         |           |          |           |
| <b>Indicator 2</b>     | <b>2</b>  | <b>2</b>  | <b>2</b>  | <b>1</b>  | <b>0</b>  | <b>0</b> | <b>7</b>  |
| E.2.1 Comp             | 2         | 2         | 2         | 1         |           |          |           |
| <b>Sci/Tech/Envrn</b>  | <b>2</b>  | <b>0</b>  | <b>2</b>  | <b>3</b>  | <b>4</b>  | <b>3</b> | <b>14</b> |
| <b>Indicator 1</b>     | <b>2</b>  | <b>0</b>  | <b>2</b>  | <b>0</b>  | <b>1</b>  | <b>2</b> | <b>7</b>  |
| S.1.1 Appl             | 2         |           | 2         |           |           |          |           |
| S.1.2 Eval             |           |           |           |           | 1         | 2        |           |
| <b>Indicator 2</b>     | <b>0</b>  | <b>0</b>  | <b>0</b>  | <b>3</b>  | <b>3</b>  | <b>1</b> | <b>7</b>  |
| S.2.1 Eval             |           |           |           | 1         | 1         | 1        |           |
| S.2.3 Analysis         |           |           |           | 1         | 1         |          |           |
| S.2.3 Synth            |           |           |           | 1         | 1         |          |           |
| <b>Totals</b>          | <b>13</b> | <b>16</b> | <b>22</b> | <b>16</b> | <b>11</b> | <b>6</b> | <b>84</b> |