



Achieving AYP

Using State-specific
Curriculum Matrix Data

**International Center for
Leadership in Education**

Please visit www.LeaderEd.com and click on Curriculum Matrix on the navigation bar to view sample charts from the Curriculum Matrix for your state.

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Appendix – Essential Skills

Chapter 2



Data-based Decision Making

Using Data

In the past, gathering education data was a slow, unwieldy, and impractical process. Today, technology makes possible and practical the widespread use of data for decision making at every level of the system—from students and teachers to parents, administrators, and community partners. Educators across the nation are embracing performance data as a useful means for focusing and directing achievement. Fear and mistrust of data are giving way to a new culture of use in which teachers and administrators routinely collect and analyze student data to achieve goals.

Many schools that struggle to improve proficiency for all students are data rich but analysis poor.

Many schools that struggle to improve proficiency for all students are data rich but analysis poor. On the other hand, the most successful, high-achieving schools have brought focus to their instructional programs by using data to answer two questions:

1. What is on the test?
2. What will students need to know and be able to do once they leave school?

Knowing the answers to these key questions is critical if instructional and curricular priorities are to be set. True data-driven achievement involves much more than merely reacting to low test scores. Schools and teachers must acquire and analyze more than the results of standardized tests in order to improve student performance.

**Table II
Excerpt from South Dakota Curriculum Matrix**

Column 1		Column 2		Column 3	Column 4	Column 5
South Dakota Communication/ Language Arts Content Standards		Curriculum Survey of Essential Skills		SAT 9 Tested	Curriculum Survey	Priority
9-12 Reading		Rank				
1	Use etymology (word origin) to determine meaning of words.	9	Know how to decipher unfamiliar words.	H	H	H
2	Apply various context clues to determine word meaning.	9	Know how to decipher unfamiliar words.	H	H	H
3	Discern the relationship between word pairs in analogies, e.g., synonyms/antonyms, connotation/denotation.	80	Understand ways an author uses language and text characteristics to aid comprehension.	L	L	L

Description of Columns

Column 1	Column 2	Column 3, 4, 5
A Sample of Communications/ Language Arts Content Standards - Grades 9-12 Reading	Curriculum Survey of Essential Skills national data crosswalked to South Dakota's standards. The essential skills ranking is identified on left side of column.	3 - Crosswalk of standards to Stanford Achievement Test, Edition 9: One question on standard = medium priority More than one question = high priority No questions = low priority
		4 - Standard crosswalked to essential skill ranking in Survey: 1 - 35 = high priority 36 - 70 = medium priority 71- 101 = low priority <i>The highest ranking takes precedence.</i>
		5 - Summary of priority rankings in Columns 3 and 4

Chapter 3



Using the Curriculum Matrix

What Should Be Taught?

In today's schools, educators struggle to answer the question: What should we teach? There are so many considerations involving national, state, and district standards and goals. Teachers and administrators often feel overwhelmed by the numerous and sometimes conflicting standards that they are held responsible for teaching. Most curricula have more content than can be taught in the time allotted in a school year.

Along with the challenge of teaching the standards, educators feel the pressure of having all students meet state testing requirements. All the while, schools are being asked to do more to prepare students to participate effectively in the complex world in which they will live and work.

Then there is the significant impact of past practice. Teachers are used to teaching based on their own vision of a well educated student. Sometimes this vision is compatible with state standards and assessments and students' postsecondary aspirations; however, this vision is almost never completely covered by them.

There is no simple answer to the question of what to teach in an overcrowded curriculum. However, districts can begin by articulating a clear vision for a quality education based on what students must know and be able to do. Content is considered critical either because students need those skills and that knowledge for future success or because they will be tested on those skills and that knowledge, or both. This vision must be shared by everyone. It serves as the guiding force behind all district efforts.

Components of the Curriculum Matrix

To assist educators in determining what should be taught and to improve student performance on state-mandated tests, the International Center developed the Curriculum Matrix. The matrix crosswalks state standards and learning expectations with state tests and with the Curriculum Survey of Essential Skills. This resource kit contains the core data that a district or

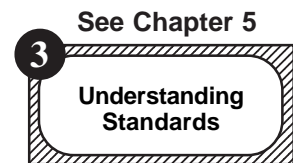
school needs to help it determine what to teach and how to raise scores on the tests.

Also included in Chapter 6 of this resource kit are 150 Gold Seal Lessons, 75 for grades K-8 and 75 for 9-12. These lessons help teach the essential skills by focusing on high priority topics. These performance tasks, written by teachers who have used them successfully in their classrooms, suggest ways the topics can be taught using real-world applications. Many of the tasks are in Quadrant D of the Rigor/Relevance Framework, where academic rigor and meaningful and engaging application of knowledge maximize learning. Additional Gold Seal Lessons by subject and by grade levels are available separately from the International Center.

State Standards

The Curriculum Matrix is based on a state’s standards in English language arts, mathematics, and science. Most states divide their standards into general statements of learning expectations and subcategories (sometimes called learning outcomes or grade level expectations) that help to define the standards. The subcategories are called by various names from state to state. The general category is stated as a broad goal or outcome statement or as an identified content area. The subcategories are variously referred to as key ideas, performance indicators, benchmarks, or topics. We will use the word “topic” to refer to the subcategories that lend definition to the standards.

The topics have the greatest impact on instructional decision making since they give more detail regarding what the student must know or be able to do to meet the standard. Often, the topics suggest appropriate instructional activities and may even provide a sample activity.



Activities for Professional Development

Developing an Understanding of Standards

1. Identifying Factors that Influence Change
2. Matching Standards to Curriculum
3. Understanding Standards

Analyzing State Tests

4. Using the Curriculum Matrix
5. Reading Test Specifications/Blueprints
6. Analyzing Test Questions
7. Analyzing the Test

Developing Local Standards

8. Differentiating Standards and Instruction

Curriculum Mapping and Gap Analysis

9. Valuing a Curriculum Map
10. Developing a Curriculum Map
11. Analyzing Gaps Using Curriculum Maps
12. Scaffolding Skills

Connecting Academic and Career and Technical Education

13. Mapping Across Disciplines

District/School Improvement Planning

14. Identifying Root Causes

Instructional Planning

15. Planning for Rigorous and Relevant Learning
16. Which Instructional Strategies Work Best?
17. Linking Standards and Student Work

Selecting/Developing Local Assessments

18. Designing Parallel Tasks

Analyzing Student Achievement

19. Analyzing Students' Performance on the Test
20. Identifying Academic Intervention Strategies

Instructional Improvement

21. Peer Review of Lessons

6 Analyzing Sample Test Questions

Purpose

This activity helps teachers to see the connection between what a student is being asked in a test question and the related state standards/performance indicators/topics as learning areas.

Preparation

- Have copies of the state standards on hand (may be taken from the Curriculum Matrix in Chapter 7)
- Provide sample test questions or questions from previous years' assessments
- Make copies of **Sample Linking Standards to Test Questions** hand-out and **Linking Standards to Test Questions** worksheet

Procedure

Time
1 hour

1. Working in small groups of 3-4, have teachers study sample test questions and identify the state standards addressed in the questions.
2. Using the Linking Standards to Test Questions worksheet, have them fill in the chart for each test question. Questions may test more than one standard or benchmark.
3. Discuss findings with the entire group.

Optional

- Have teachers search for more sample items for their state tests. These are generally available from the state education department and/or its Web site.
- Compile a resource guide of sample test items for students and other teachers.

Sample Linking Standards to Test Questions

Test: *High School Exit Exam*

Subject: *English Language Arts*

Test Question	Standard/Topic/Benchmark	Evidence in Question
#1 – In which situation would the writer’s purpose be primarily to instruct?	Critical Thinking – Recognizes different purposes and methods of writing; identifies a writer’s tone and point of view.	The student is asked to distinguish among situations and indicate which one matches the given purpose of instructing.

Sample Item

1. In which situation would the writer’s purpose be primarily to instruct?
 - A. writing jokes for a speech to be given before a civic group
 - B. writing about the opening of a new play for the local newspaper
 - C. writing the owner’s manual that accompanies a new printer
 - D. writing a letter to the editor of the newspaper opposing the building of a hazardous waste dump.



Linking Standards to Test Questions

Test:

Subject:

Test Question	Standard/Topic/Benchmark	Evidence in Question

8

Differentiating Standards and Instruction

Purpose

The purpose of this activity is to help teachers distinguish terms that are used to describe student achievement from those used to describe instruction. Many teachers are used to describing their teaching in terms of content. The movement to standards requires teachers to think more about student learning as defined in the subcategories of state standards.

Preparation

- Make copies of **Differentiating Standards and Instruction** worksheet and answer key
- Do not hand out answer key until end

Procedure

1. Review for teachers the terms used in your state standards and what constitutes evidence of knowledge or mastery of student work.

Time

45-60 minutes

2. Have teachers complete the handout individually and then compare answers with a partner. Hand out the answer key and discuss any questions that teachers have.



Differentiating Standards and Instruction

The purpose of this worksheet is to differentiate clearly among **standards** (skills and knowledge students are expected to learn), **curriculum content** (the labels that describe portions of the curriculum), and **student work** (what students will do to demonstrate competence as part of instruction or assessment).

Review each of the following items and label it S for Standards, C for Content, or W for student work.

S

Standards – describe what students will know and be able to do

C

Content – labels topics to be covered in teaching

W

Student Work – describes tasks students do to engage in learning

- _____ Speak to share data, facts, and ideas
- _____ Speaking and listening
- _____ Statistics and probability
- _____ Test consumer products and illustrate data graphically
- _____ Tour the school building and identify parallel lines, planes, and triangles
- _____ Understand and apply ratios, proportions, and percents through a wide variety of hands-on explorations
- _____ Understand the purpose for writing; for example, explain, describe, narrate, persuade, and express feelings
- _____ Literature
- _____ Listen in order to follow directions involving a few steps
- _____ Know all perimeter and area formulas
- _____ Journal of observations from a scientific inquiry
- _____ Informational reading
- _____ Give and seek constructive feedback in order to improve writing
- _____ Geometric shapes
- _____ Demonstrate understanding of probability by solving word problems

- _____ Creative writing
- _____ Algebra
- _____ Add, subtract, multiply, and divide fractions, decimals, and integers
- _____ Make a scale drawing of the classroom
- _____ Measurement
- _____ Use estimation to solve problems for which exact answers are inappropriate
- _____ Use pattern blocks to discover relationship of fractions
- _____ Solve problems that illustrate the use of fractions and decimals
- _____ Research paper on a current scientific issue
- _____ Reasoning and problem solving
- _____ Reading for critical evaluation
- _____ Read from informational texts such as textbooks, reference materials, graphs, charts and diagrams
- _____ Read two books a month
- _____ Presentation using computer visuals

Chapter 6



Gold Seal Lessons

What Are Gold Seal Lessons?

All 150 Gold Seal Lessons in their entirety are on the CD included with this kit. Only a fragment of each lesson is shown in this chapter for browsing.

The Curriculum Matrix is in Chapter 7.

Gold Seal Lessons are a practical solution to the challenge of increasing the rigor and relevance of instruction for all students.

The International Center has been developing performance-based lessons since the mid-1990s. Over that time, revisions and improvements have been made to make the lessons more useful and effective. Gold Seal Lessons are the most recent generation of these performance tasks.

Gold Seal Lessons require students to learn and perform in a number of different ways. The student may research, write, compute, model, demonstrate, build, survey, or report in a variety of academic, technical, work, and community environments. The level of rigor and relevance of each lesson is calibrated on the Rigor/Relevance Framework. The vast majority are in Quadrant D (high rigor/high relevance).

A lesson may take as little time as a class period or as much as a year to complete. The task may run concurrently with other class activities, or it may be the exclusive activity for a period of time. Students sometimes work individually, but more frequently they accomplish the task in a small work group.

Gold Seal Lessons are strategically designed to teach to specific academic standards and their subcategories (e.g., topics, performance objectives, benchmarks) in English language arts, mathematics, and science. The connection to each state's standards is made through the International Center's Curriculum Survey of Essential Skills, as shown on the Curriculum Matrix.

Each Gold Seal Lesson is centered about a highly motivating theme, activity, or project. The lessons are typically multidisciplinary and deal with real-world situations or problems. Each lesson includes a scoring guide to be shared with students and used by the teacher to assess performance.

Gold Seal Lessons are not intended to be full-blown lesson plans. Rather, they are suggestions for real-world applications of the skills and knowledge that are frequently tested and that are considered essential for students to master.

Chapter 7



State Curriculum Matrix Data

Overview

This chapter contains the Curriculum Matrix, which crosswalks your state standards in English language arts, mathematics, and science to your state assessments and to the Curriculum Survey of Essential Skills. The Curriculum Matrix is preceded by a State Information Resources chart and a Curriculum Matrix Summary chart. These charts, described below, provide background and summary information to help you interpret the crosswalks.

State Information Resources

The State Information Resources chart indicates where the International Center for Leadership in Education found information about the state standards and subcategories (e.g., strands, goals, areas of study, knowledge indicators, objectives, benchmarks, performance indicators). It also gives the source of the assessment data used in the Curriculum Matrix. The International Center assembled a State Development Team to assist in the review and analysis of Curriculum Matrix data.

Curriculum Matrix Summary

The Curriculum Matrix Summary chart provides a summary of the crosswalks of the state standards/subcategories to state assessments and to the Curriculum Survey of Essential Skills national rankings.

- The first column identifies the discipline and the tests, by grade level, that were researched.
- The next two columns identify the number of broad-based areas and subcategories in the state standards that correlate to the grade level.
- The fourth column offers summary information about the match between the state assessment and the standards. The numbers under the H (high), M (medium), and L/No Q (low, which means no questions)

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designations indicate the number of standard subcategories (benchmarks, indicators, etc.) that are tested on the state assessment.

- In the last column, the standard subcategories are crosswalked to the Curriculum Survey of Essential Skills. H (high) is the label for the top 35 ranked essential skills; M (medium) labels the skills ranked between 36 and 70; and L (low) means the essential skill was ranked 71 or above. The numbers under H, M, and L indicate how many standard subcategories matched essential skills at that level. A standard subcategory is also included under L if there was no match to the essential skills.

The Curriculum Survey of Essential Skills is in the Appendix.

Note: Every effort has been made to ensure that the data used to compile the Curriculum Matrix were accurate, complete, and the most currently available at the time. Changes in state curriculum and assessment programs do occur, however, and may affect the data or the analysis of the data.

Please advise the International Center of any changes in state standards or state assessment practices and data that could impact this Curriculum Matrix data. Any updates of the Curriculum Matrix data completed within 12 months of the purchase of this kit will be provided at no additional charge upon request and with confirmation of purchase.

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