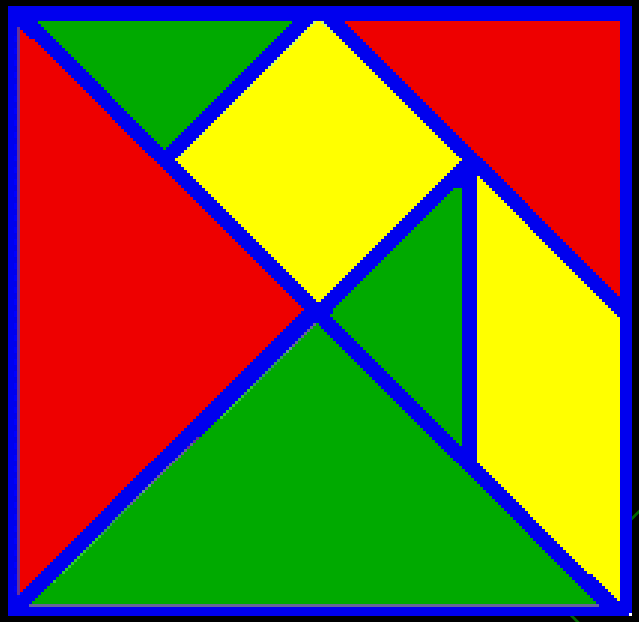
Tests for Higher Standards:

Linking Curriculum, Instruction, and Assessment

What is a tangram?



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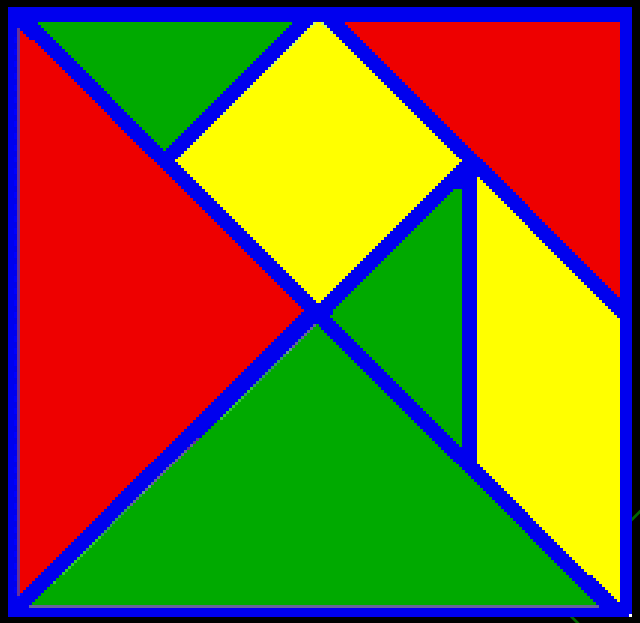
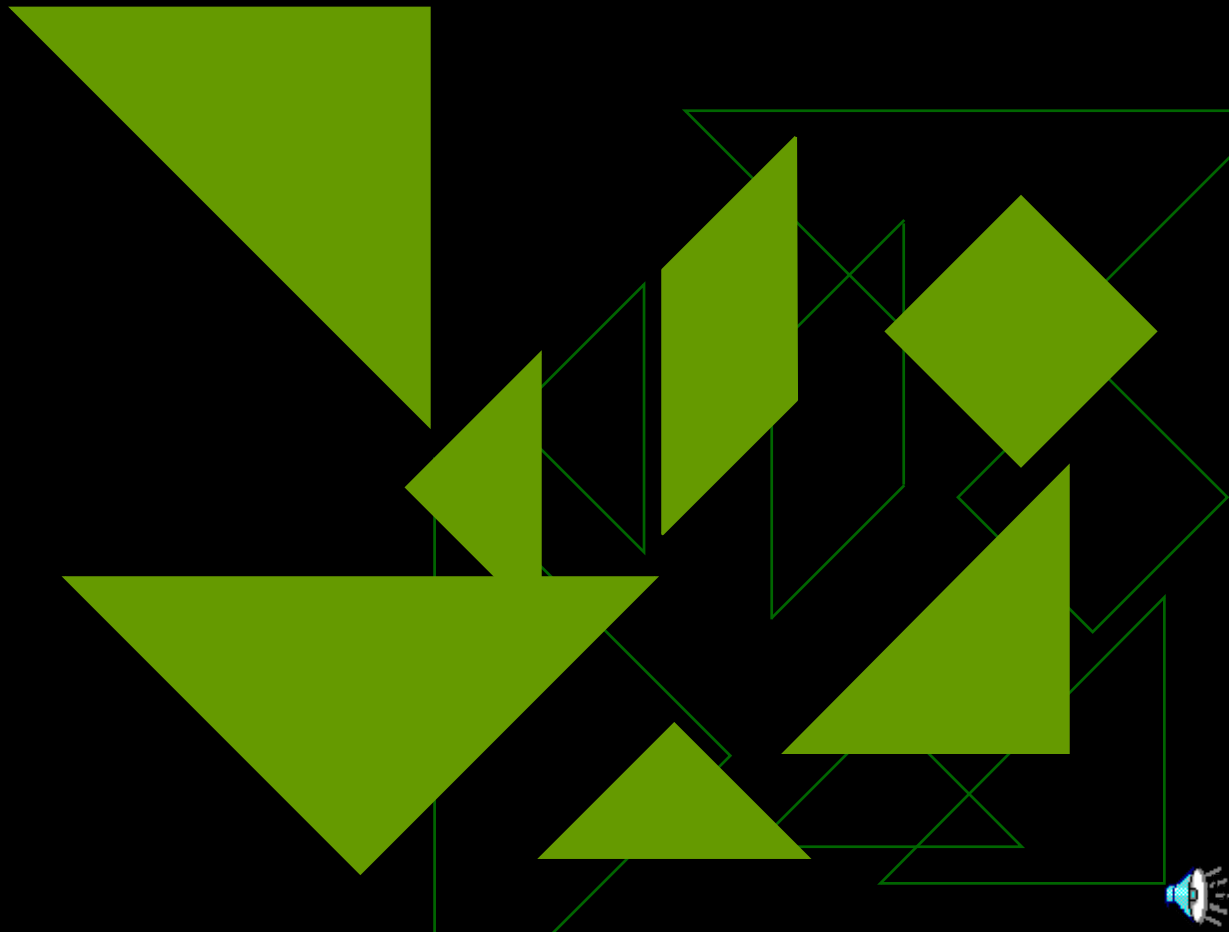
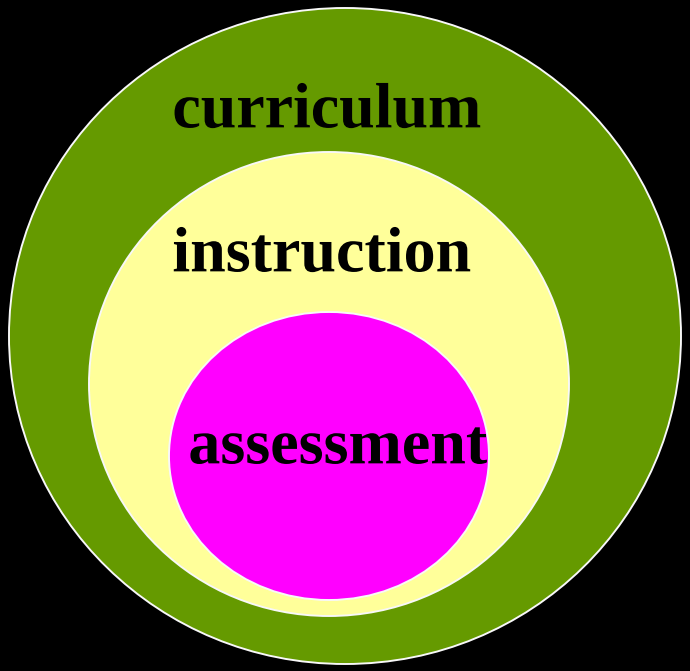


A tangram is an ancient Chinese puzzle that uses seven pieces cut from a square.

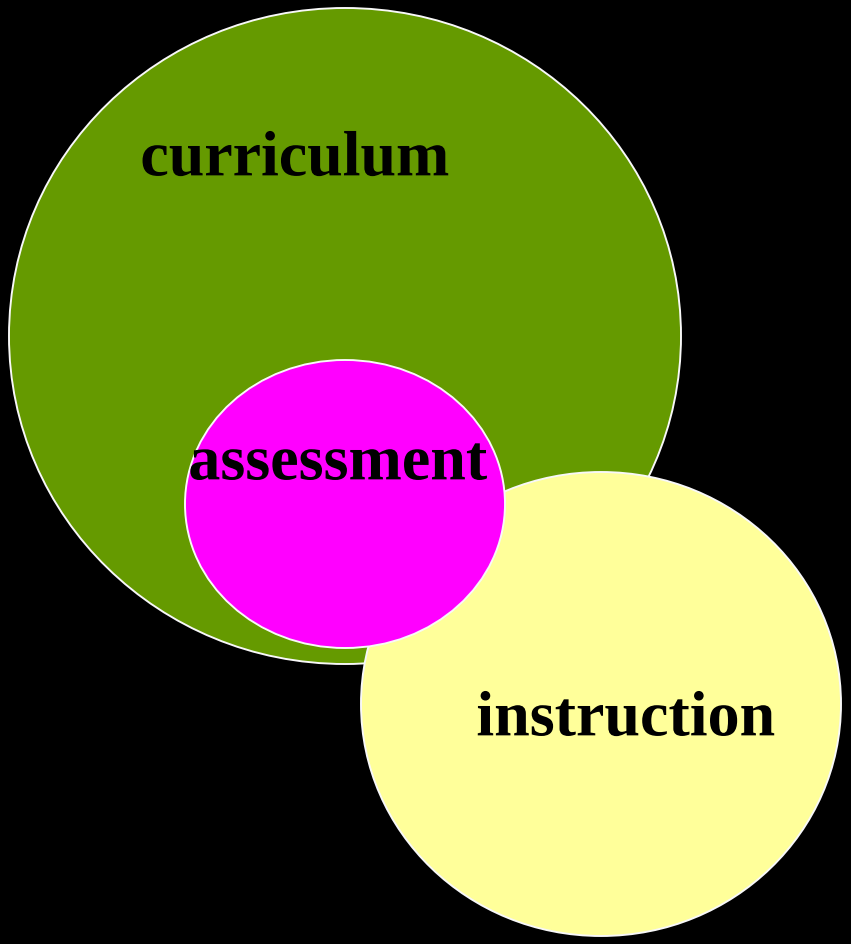
How are TfHS assessments like a tangram?

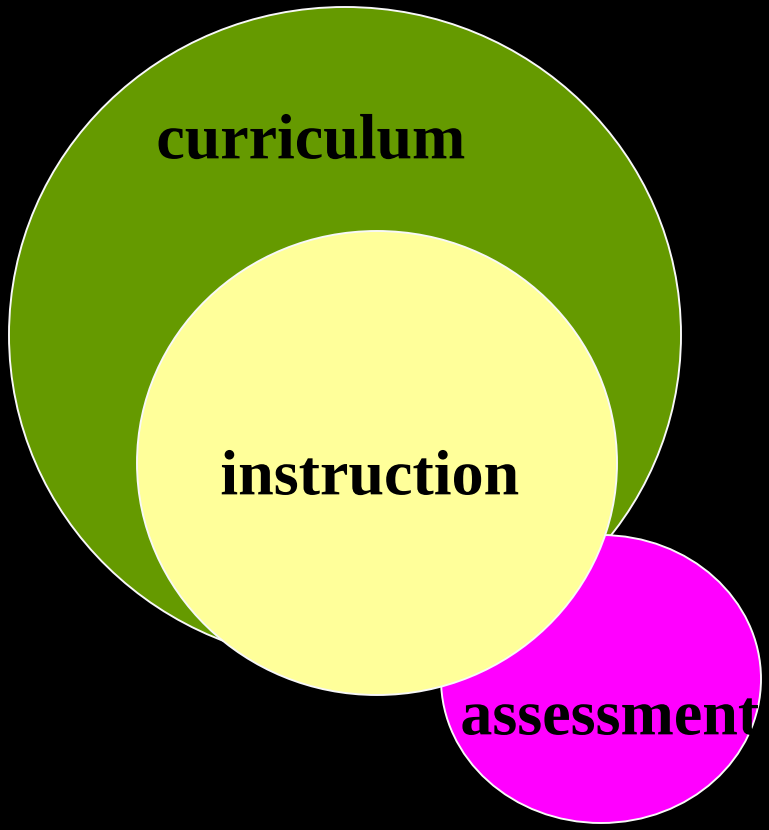


Curriculum Alignment



Classroom instruction and assessment must remain aligned with pacing guides, curriculum documents, and State blueprints





What's wrong with these pictures?

Diagnosis and Assessment of Student Learning

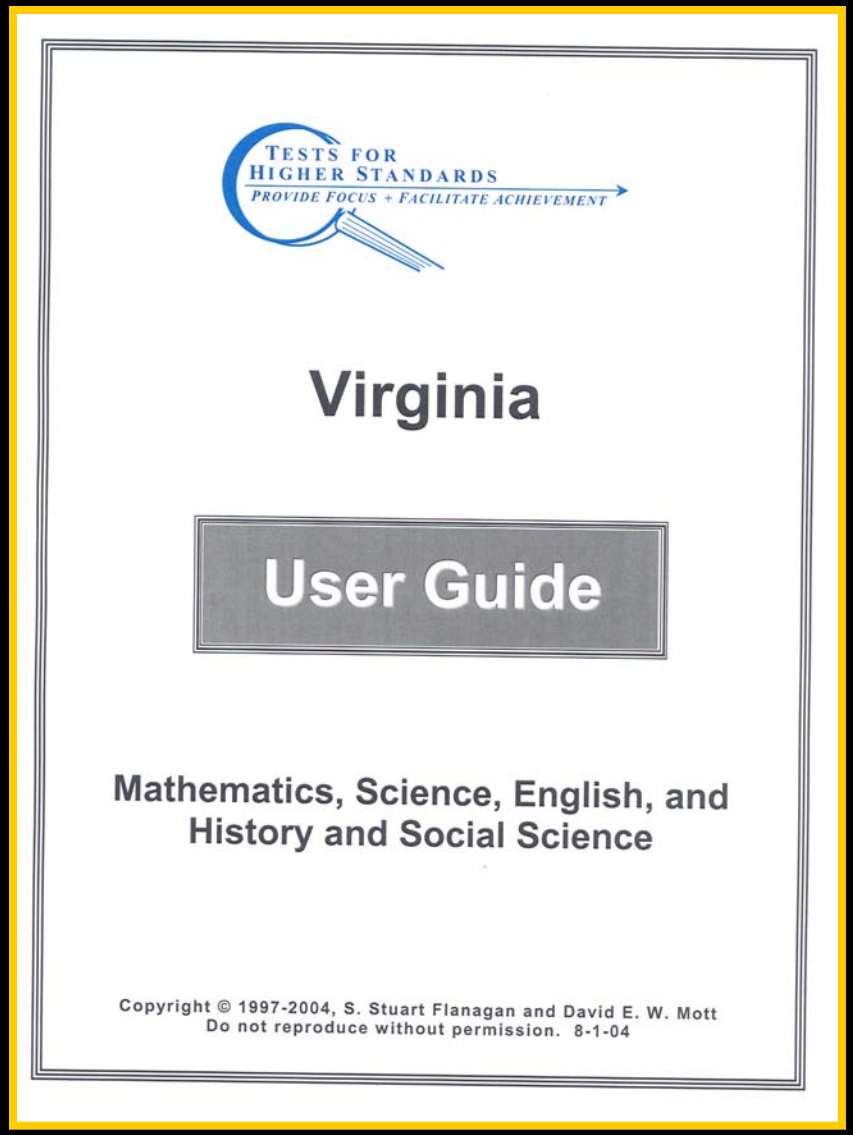
- Assessments are More Than Tests
  - "Diagnosis and assessment of student learning ensure that students have mastered the objectives taught during a specified time period and that instruction is refined and fine-tuned based on the results."
- Assessment Takes Many Forms
  - Pre-tests, post-tests, cumulative review tests, practice and simulation tests, teacher-made tests, warm-ups, homework, snapshot assessments, benchmark assessments

Diagnosis and Assessment of Student Learning

- Assessment Has Many Uses
  - Assessment is a part of teaching
  - Assessment, instruction and curriculum are interrelated in every lesson
  - Assessment should diagnose a student's strengths or needs
  - Assessment can provide feedback to the student and motivate him to achieve
  - Assessments support and assess the mastery and retention of subject matter and determine the need for re-teaching, remediation or enrichment
  - **Assessment informs and guides instruction**

Why Tests for Higher Standards?

- Provide valid, reliable, SOL-related tests to help teachers and administrators diagnose the strengths and weaknesses of individual students
- Allow for great flexibility of use
- Provide a comprehensive standards-based approach to the assessment-planning-teaching process
- Utilize a comprehensive diagnostic system for student learning of the SOLs



User Guide

Table of Contents

Research on Assessment

- **FACT: The most powerful single modification that enhances achievement is feedback. The simplest prescription for improving education must be "dollops of feedback".**
  - **TESTS FOR HIGHER STANDARDS**, through simulation tests, grade level tests, 9-week tests, and ongoing assessments such as TfHS's Item Banks, provide "dollops of feedback" that is based squarely on the State's standards and only on the State's standards.
  - Maximum Potential Gain: 35%

Research on Assessment

- **FACT: Students need assessments that will tell them what they are doing is correct and what is incorrect. They need to know how to correct the performance and work on it until they do.**

  - **TESTS FOR HIGHER STANDARDS** provide diagnostic data so that the student and teacher will know specifically what needs correcting and the related assessment tools to determine the performance in question is correct. The feedback needs to be standards specific to maximize student gains.
  - Maximum Potential Gain: 30%

Research on Assessment

- **FACT: Assessment results need to be immediate. The greater the delay the less impact there is on achievement.**
  - **TESTS FOR HIGHER STANDARDS** provide assessments that allow for immediate feedback. There are several ways for this to happen depending on the scoring technique the teachers opt to employ: hand scoring, Scantron, online, student scoring, etc.
  - Maximum Potential Gain: 20%

Research on Assessment

- **FACT: Corrections should be specific to the task/objective.**
  - **TESTS FOR HIGHER STANDARDS** identify the specific standard that each and every test item measures. The standard is coded next to every item on each and every TfHS test. This better enables the teacher to assist the student in making specific corrections of specific, individual standards.

Research on Assessment

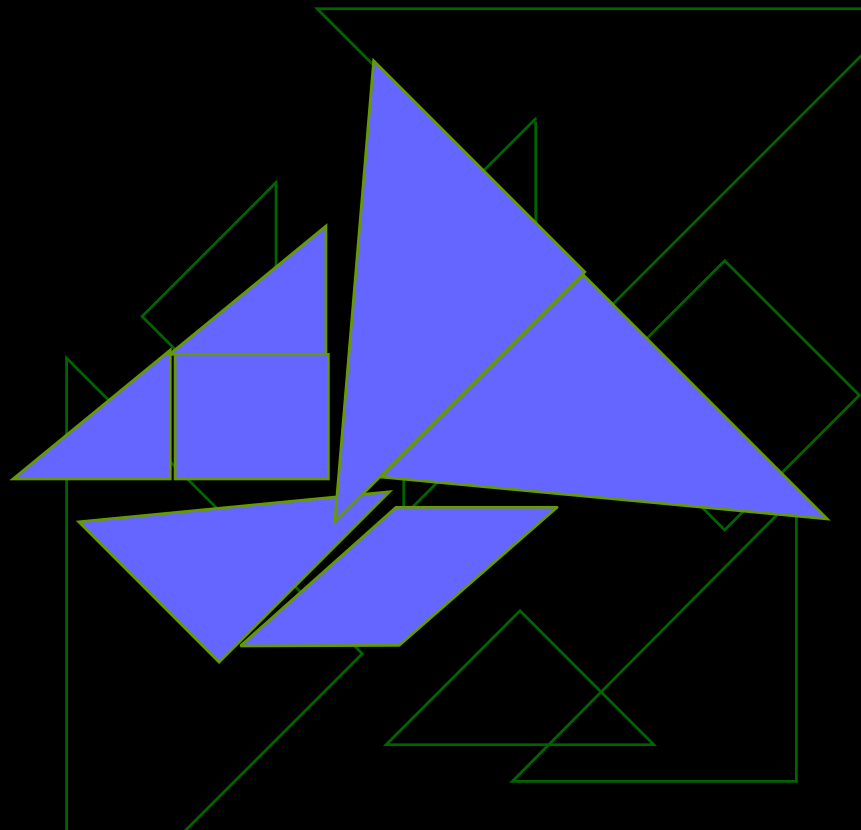
- **FACT: Students could use TfHS's Classroom Matrix to know and evaluate their progress.**
  - **TESTS FOR HIGHER STANDARDS** offer the student a means of mapping and/or seeing their own progress. For grade level pre-post tests and simulation tests, there is an individual student profile and related **Classroom Matrix** that demonstrates what the student knows and the related ongoing progress or lack thereof.

Three Products to Improve Student Achievement

- Grade Level Tests
  - Grades K-8 and End-of-Course
- Achievement Booklets
  - Grades K-8 and End-of-Course
- Simulation Tests
  - Grades 3-8, and End-of-Course
  - Simulation tests for English and Math in grades 3,4,5,6,7, and 8 built on NEW Blueprints

Three Products to Improve Student Achievement

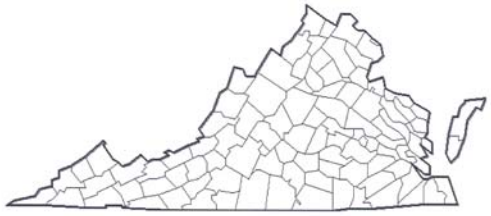
Grade Level Tests



TESTS FOR HIGHER STANDARDS

MATHEMATICS

2002 Standards



GRADE - LEVEL TEST

Grade 8

Dr. S. Stuart Flanagan, Professor Emeritus
College of William and Mary

8.1a
1. Find the value of this expression.

$8 + 8 \div (2 \times 4)$

A 9
B 24
C 32
D 36

8.1a
2. What does 10^0 equal?

A not defined
B 1
C 10
D 100

8.1a
3. $(y^3)(y^3) = ?$

A y^0
B y^3
C y^6
D y^9

8.1a
4. Which of these is NOT a correct step in simplifying this expression?

$2 \div (4 - 3) + 4 \times 5$

A $2 + 4 \times 5$
B $2 \div (1) + 4 \times 5$
C $2 \div 21$
D $2 + 20$

8.1b
5. Which of the following numbers is the largest ?

A 7.5×10^4
B 5.6×10^5
C 6.1×10^5
D 6.5×10^5

8.1c
6. Which shows $\frac{6}{8}$ expressed as a fraction, a decimal, and a percent?

A $\frac{3}{4}$, 0.34, 34%
B $\frac{6}{8}$, 0.68, 68%
C $\frac{3}{4}$, 0.75, 75%
D $\frac{6}{8}$, 0.75, 7.5%

8.1c
7. Which of the following sets of equivalent fractions, decimals, and percents is INCORRECT?

A $0.534 = \frac{534}{1000} = \frac{53.4}{100} = 53.4\%$
B $0.39 = \frac{39}{100} = 39\%$
C $6.07 = \frac{607}{100} = \frac{60.7}{100} = 60.7\%$
D $0.9 = \frac{9}{10} = \frac{90}{100} = 90\%$

TfHS Grade Level Tests

- Four core areas, K-8 grade level tests, and End-of-Course Tests
- Developed to help teachers focus instruction on the content and processes of the SOLs
- Criterion-referenced, four alternative, multiple choice tests
- 50-80 items/3-6 items per Standard
- Administered as a whole or in chunks

Using the TfHS Grade Level Tests

- Can be used before or after instruction to determine the progress of learning
  - Students who take a TfHS Grade Level Test as a pretest at the beginning of a school year should take the test designed for that grade level
  - Teachers could choose to use the TfHS Grade Level Test for the previous, just completed grade level as a diagnostic tool
    - Provides a class profile telling what needs the whole class has and specific needs of each student
  - Grade level tests may also be used to create benchmark tests, end-of-year tests, nine weeks tests, semester exams, unit tests

End-of-Year/Mid-Year Testing Using the TfHS Grade Level Tests

- The grade level tests may certainly be used as a portion of a local division-or teacher written mid-year, nine weeks, unit test, benchmark test or final examination
  - The grade level tests should be supplemented with locally relevant assessment
  - Any customization applied to any TfHS test must leave all copyright notices intact and must indicate that the test is a special form of the original TfHS product
  - Test items which are modifications or close adaptations of the TfHS test items remain the copyright of TfHS, as per copyright law
  - Other test items remain the property of the copyright owner

Practice Testing and Instruction Using the TfHS Grade Level Tests

Any use of the TFHS Grade-Level Tests will do at least two things:

- Provide students with practice for the state-mandated SOL tests
- Give teachers the chance to see SOL content embodied in actual test items

Some tests, such as writing and reading, will be useful as instructional texts:

- Writing tests contain writing passages and answer choices that can become useful subject matter for class discussion
- Reading tests contain literature, both old and new, that may supplement other class reading
- Reading tests may help to build stamina for students taking the Standards of Learning tests

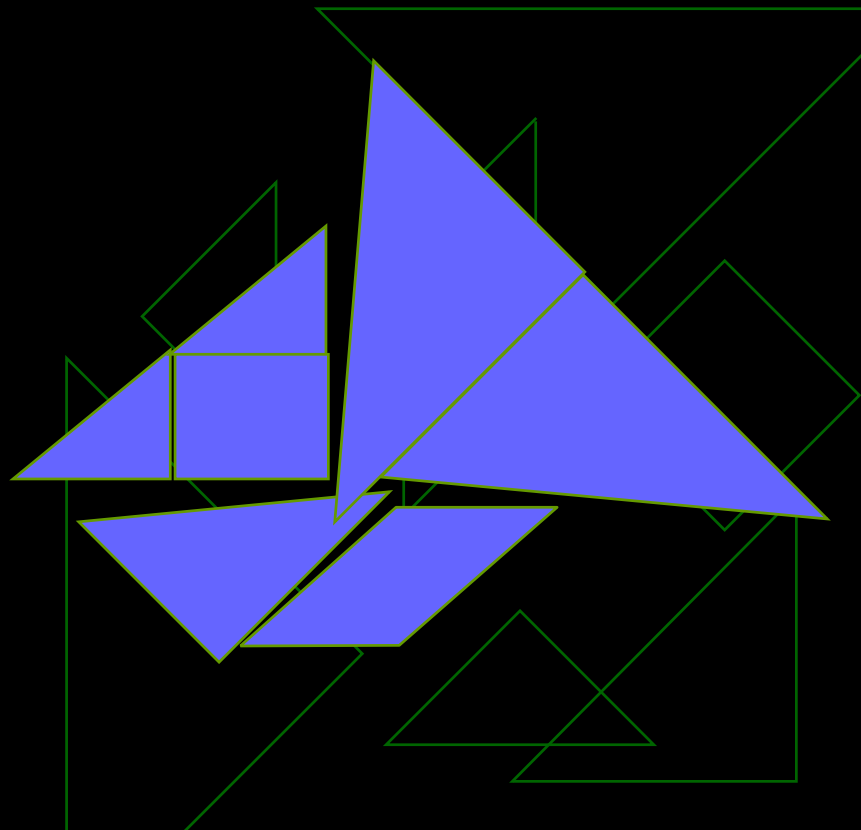
Strengths and Limitations of the TfHS Grade Level Tests

Strengths:

- Simulate the experience of taking the state-mandated SOL test
- Provide pre- and post-data about individual students and whole classes
- Provide diagnostic information about individual students on individual standards
- Provide a focus for instruction

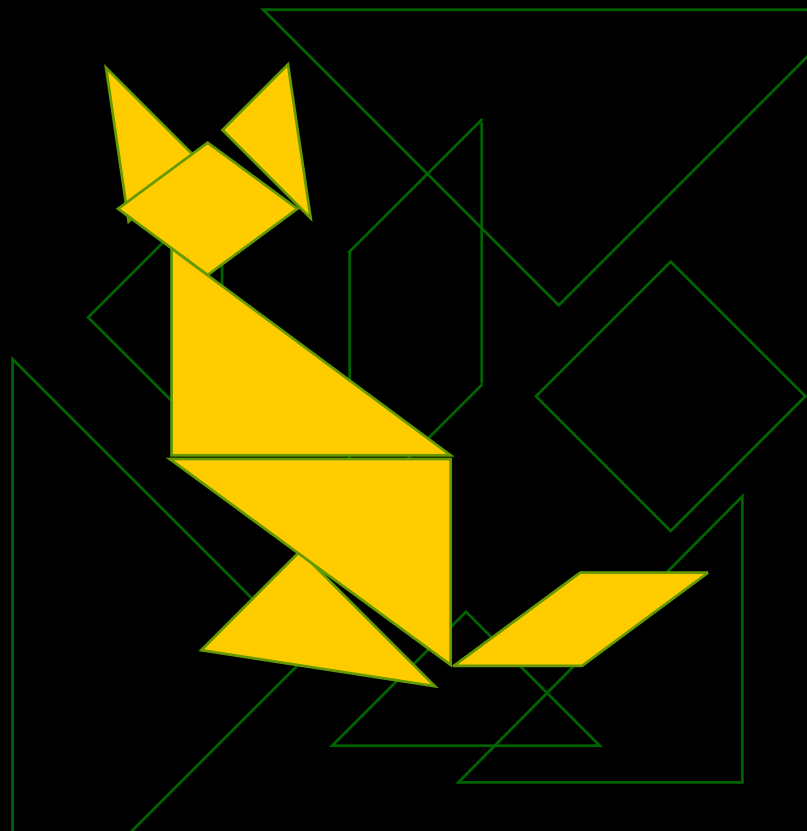
Reflection and Questions about...

Grade Level Tests



Three Products to Improve Student Achievement

Item Banks



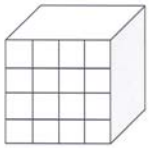
MY ACHIEVEMENT

SOL	PAGE	DESCRIPTION	SCORE	
8.1	1	a) simplify numerical expressions involving positive exponents, using rational numbers, order of operations, and properties of operations with real numbers; b) recognize, represent, compare, and order numbers expressed in scientific notation; and c) compare and order decimals, fractions, percents, and numbers written in scientific notation.		21
8.2	4	Describe orally and in writing the relationship between the subsets of the real number system.		12
8.3	6	Solve practical problems involving rational numbers, percents, ratios, and proportions. Problems will be of varying complexities and will involve real-life data, such as finding a discount and discount prices and balancing a checkbook.		21
8.4	10	Apply the order of operations to evaluate algebraic expressions for given replacement values of the variables. Problems will be limited to positive exponents.		10
8.5	11	Given a whole number from 0 to 100, identify it as a perfect square or find the two consecutive whole numbers between which the square root lies.		13
8.6	13	Verify by measuring and describe the relationships among vertical angles, supplementary angles, and complementary angles and will measure and draw angles of less than 360°.		18
8.7	17	Investigate and solve practical problems involving volume and surface area of rectangular solids (prisms), cylinders, cones, and pyramids.		29
8.8	23	Apply transformations (rotate or turn, reflect or flip, translate or slide, and dilate or scale) to geometric figures represented on graph paper. The student will identify applications of transformations, such as tiling, fabric design, art, and scaling.		12
8.9	26	Construct a three-dimensional model, given the top, side, and/or bottom views.		11
8.10	30	a) verify the Pythagorean Theorem, using diagrams, concrete materials, and measurement; and b) apply the Pythagorean Theorem to find the missing length of a side of a right triangle when given the lengths of the other two sides.		10
8.11	32	Analyze problem situations, including games of chance, board games, or grading scales, and make predictions, using knowledge of probability.		25
8.12	36	Make comparisons, predictions, and inferences, using information displayed in frequency distributions; box-and-whisker plots; scattergrams; line, bar, circle, and picture graphs; and histograms.		12
8.13	41	Use a matrix to organize and describe data.		12
8.14	43	a) describe and represent relations and functions, using tables, graphs, and rules; and b) relate and compare tables, graphs, and rules as different forms of representation for relationships.		15
8.15	49	Solve two-step equations and inequalities in one variable, using concrete materials, pictorial representations, and paper and pencil.		9
8.16	50	Graph a linear equation in two variables, in the coordinate plane, using a table of ordered pairs.		10
8.17	53	Create and solve problems, using proportions, formulas, and functions.		11
8.18	55	Use the following algebraic terms appropriately: *domain, range, independent variable,* and *dependent variable.*		8

Name _____ Date _____

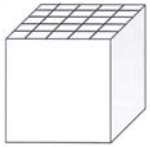
SOL 8.9

1. **If the side of a cube shows sixteen blocks, then the entire cube will have _____ blocks.**



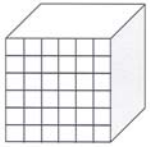
A 24
B 48
C 64
D 128

2. **If the top view of a cube shows 25 blocks, how many more blocks will it take to complete the cube?**



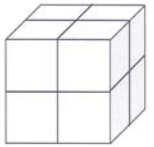
A 25
B 50
C 75
D 100

3. **If the side of a cube has 36 blocks, then the entire cube will have _____ blocks.**



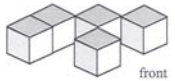
A 172
B 216
C 360
D 720

4. **How many blocks are in a 2x2x2 cube?**

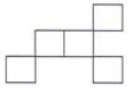


A 6
B 8
C 10
D 12

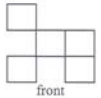
5. **Which drawing below represents a view of the solid figure from directly above?**



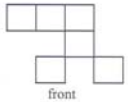
A



B



C

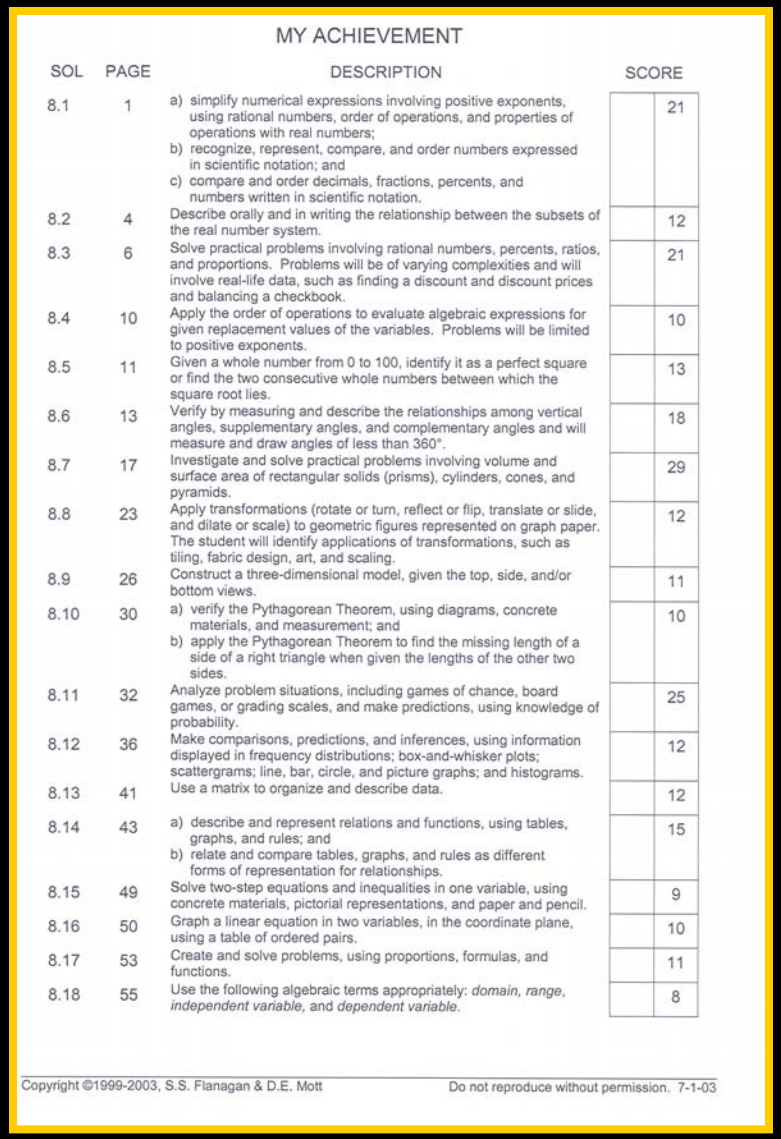


D

Item Banks

- Item Banks exist for all content areas, for all grades, all end-of-course test areas
- Enough items were developed to evaluate the various components of each SOL so that a teacher could make a reliable judgment about a student's individual SOL achievement
- Most banks contain 300-500 items
- Each item is a stand-alone Word document and can be modified

Item Banks



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8.17	53	Create and solve problems, using proportions, formulas, and functions.		11
8.18	55	Use the following algebraic terms appropriately: *domain, range, independent variable,* and *dependent variable.*		8

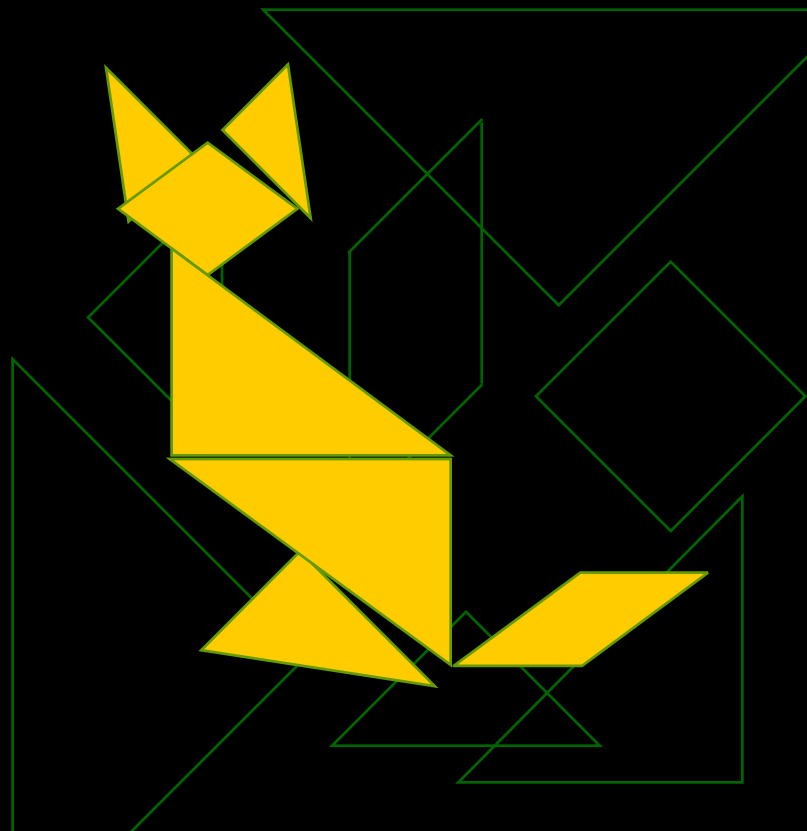
- Item index indicates the number of items available to measure each SOL for that grade

Uses for Item Banks

- Resource to teachers, parents, tutors, and others who are assisting with student learning
- Overhead transparencies can be made and used to either illustrate teaching points or to administer an assessment, without having to print a large number of booklets
- Selections from several banks can easily be combined into one test
- **EXCELLENT source of questions needed for developing benchmark and snapshot assessments**

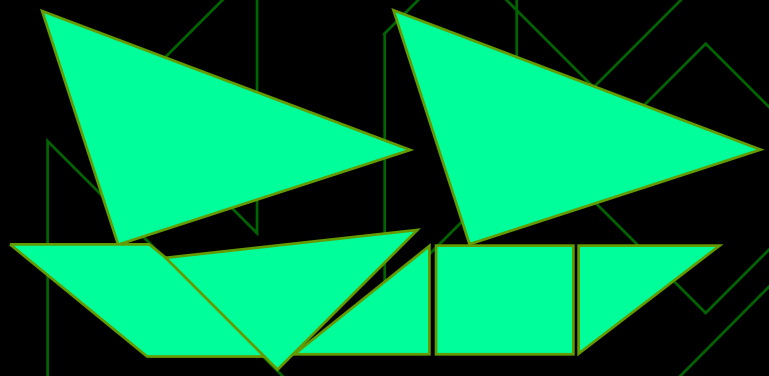
Reflection and Questions about...

Item Banks



Three Products to Improve Student Achievement

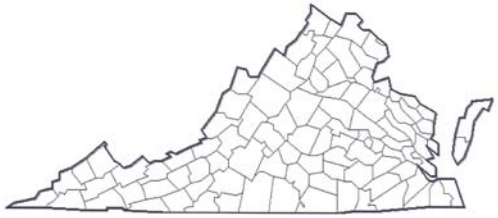
Simulation Tests



TESTS FOR HIGHER STANDARDS

MATHEMATICS

2002 Standards



SIMULATION TEST

Grade 6

Dr. S. Stuart Flanagan, Professor Emeritus
College of William and Mary

Number and Number Sense

(6.1)
1. If there were 100 questions on your math test and you got 85 of them correct, what is your grade, as a fraction, decimal, and a percent?

A $\frac{15}{100}$, 0.15, 15%

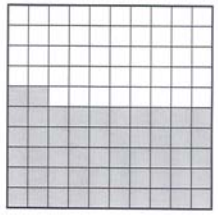
B $\frac{15}{100}$, 0.15, 1.5%

C $\frac{85}{100}$, 0.85, 85%

D $\frac{85}{100}$, 0.15, 8.5%

(6.1)
2. If the entire shaded picture represents 1 whole, which of the following represents this picture?

= 1



F 52%, 5.2, $\frac{2}{5}$

G 52%, 0.52, $\frac{13}{25}$

H 5.2%, 0.52, $\frac{5}{2}$

J 0.52%, 0.52, $\frac{13}{25}$

TfHS Simulation Tests

- Simulation tests provide the student with a means to experience a test that resembles the State tests for grades 3-8, and end-of-course tests
- Requirements spelled out in the State test's blueprints and the formats presented in the sample items are followed in detail
- ENGLISH AND MATH: SIMULATION TESTS FOR GRADES 3,4,5,6,7, AND 8 FOLLOW NEW BLUEPRINTS
- State's reporting categories are used for scoring

Grade 4 Mathematics Test
Blueprint Summary Table

Reporting Categories	Number of Items	Grade 4 SOL
Number and Number Sense	8	4.1a,b,c 4.2a,b,c 4.3 4.4a,b,c
Computation and Estimation	12	4.5 4.6 4.7 4.8 4.9a,b,c
Measurement and Geometry	12	4.10a,b,c 4.11a,b,c 4.12a,b,c 4.13a,b 4.14 4.15a,b 4.16 4.17a,b,c 4.18
Probability and Statistics	8	4.19a,b 4.20
Patterns, Functions, and Algebra	10	4.21 4.22
SOL Excluded From This Test		None
Total Number of Operational Items	50	
Field Test Items*	10	
Total Number of Items	60	

*These field test items will *not* be used to compute students' scores on the test.

Grade 5 Mathematics Test
Blueprint Summary Table

Reporting Categories	Number of Items	Grade 5 SOL
Number and Number Sense	8	5.1a,b,c 5.2a,b
Computation and Estimation	12	5.3 5.4 5.5 5.6 5.7
Measurement and Geometry	12	5.8 5.9 5.10 5.11a,b,c,d,e 5.12 5.13 5.14 5.15a,b,c,d,e 5.16
Probability and Statistics	8	5.17a,b,c 5.18 5.19
Patterns, Functions, and Algebra	10	5.20 5.21a,b,c 5.22
SOL Excluded From This Test		None
Total Number of Operational Items	50	
Field Test Items*	10	
Total Number of Items	60	

*These field test items will *not* be used to compute students' scores on the test.

Grade 6 Mathematics Test
Blueprint Summary Table

Reporting Categories	Number of Items	Grade 6 SOL
Number and Number Sense	8	6.1 6.2 6.3a,b,c 6.4 6.5
Computation and Estimation	10	6.6a,b 6.7 6.8
Measurement and Geometry	12	6.9a,b,c,d 6.10 6.11 6.12a,b 6.13a,b 6.14 6.15 6.17
Probability and Statistics	8	6.18a,b,c 6.19 6.20a,b
Patterns, Functions, and Algebra	12	6.21 6.22 6.23a,b,c
SOL Excluded From This Test		6.16
Total Number of Operational Items	50	
Field Test Items*	10	
Total Number of Items	60	

*These field test items will *not* be used to compute students' scores on the test.

Grade 7 Mathematics Test
Blueprint Summary Table

Reporting Categories	Number of Items	Grade 7 SOL
Number and Number Sense	7	7.1 7.2 7.3a,b,c,d,e
Computation and Estimation	7	7.4a,b 7.5 7.6
Measurement and Geometry	12	7.7a,b 7.8 7.9 7.10 7.11 7.12 7.13
Probability and Statistics	12	7.14 7.15 7.16 7.17a,b,c,d,e,f 7.18
Patterns, Functions, and Algebra	12	7.19 7.20 7.21 7.22a,b
SOL Excluded from This Test		None
Total Number of Operational Items	50	
Field Test Items*	10	
Total Number of Items	60	

*These field test items will *not* be used to compute students' scores on the test.

Grade 8 Mathematics Test
Blueprint Summary Table

Reporting Categories	Number of Items	Grade 8 SOL
Number and Number Sense	7	8.1a,b,c 8.2
Computation and Estimation	7	8.3 8.4 8.5
Measurement and Geometry	12	8.6 8.7 8.8 8.9 8.10a,b
Probability and Statistics	8	8.11 8.12 8.13
Patterns, Functions, and Algebra	16	8.14a,b 8.15 8.16 8.17 8.18
SOL Excluded from This Test		None
Total Number of Operational Items	50	
Field Test Items*	10	
Total Number of Items	60	

*These field test items will *not* be used to compute students' scores on the test.

New Blueprints in Mathematics for Grades 3,4,5,6,7, and 8

New Simulation Tests in Mathematics for Grades 3,4,5,6,7, and 8

Grade 4 Reading Test
Blueprint Summary Table

Reporting Categories	Number of Items	Grade 4 SOL
Use word analysis strategies and information resources	8	4.3 a-d 4.6 b
Demonstrate comprehension of printed materials	27	4.4 a-d 4.4 f 4.5 a-f 4.5 h 4.6 c
SOL Excluded From This Test		4.4 e 4.5 g 4.5 i 4.6 a
Total Number of Operational Items	35	
Field-Test Items*	7	
Total Number of Items	42	

*These field-test items will *not* be used to compute students' scores on the test.

Grade 5 Reading Test
Blueprint Summary Table

Reporting Categories	Number of Items	Grade 5 SOL
Use word analysis strategies and information resources	10	5.4 a-c 5.7 b
Demonstrate comprehension of printed materials	30	5.5 b-c 5.5 e 5.6 a-e 5.7 a
SOL Excluded From This Test		5.5 a 5.5 d 5.6 f-g
Total Number of Operational Items	40	
Field-Test Items*	10	
Total Number of Items	50	

*These field-test items will *not* be used to compute students' scores on the test.

Grade 6 Reading Test
Blueprint Summary Table

Reporting Categories	Number of Items	Grade Six SOL
Use word analysis strategies and information resources	11	6.3 a-d 6.5 c 6.5 g
Demonstrate comprehension of printed materials	34	6.4 a-h 6.5 a-b 6.5 d-f
SOL Excluded From This Test		none
Total Number of Operational Items	45	
Field-Test Items*	10	
Total Number of Items	55	

*These field-test items will *not* be used to compute students' scores on the test.

Grade 7 Reading Test
Blueprint Summary Table

Reporting Categories	Number of Items	Grade 7 SOL
Use word analysis strategies and information resources	11	7.4 a-b 7.7 a-c
Demonstrate comprehension of printed materials	34	7.5 a 7.5 c 7.5 e-g 7.6 a-g
SOL Excluded From This Test		7.4 c 7.5 b 7.5 d 7.7 d
Total Number of Operational Items	45	
Field-Test Items*	10	
Total Number of Items	55	

*These field-test items will *not* be used to compute students' scores on the test.

Grade 8 Reading Test
Blueprint Summary Table

Reporting Categories	Number of Items	Grade Eight SOL
Use word analysis strategies and information resources	11	8.4 a-b
Demonstrate comprehension of printed materials	34	8.5 a-c 8.6 c-i
SOL Excluded From This Test		8.5 d-e 8.6 a-b
Total Number of Operational Items	45	
Field-Test Items*	10	
Total Number of Items	55	

*These field-test items will *not* be used to compute students' scores on the test.

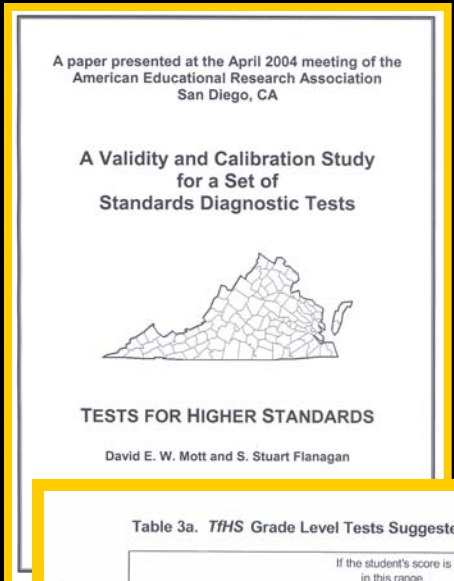
New Blueprints in English for Grades 3,4,5,6,7, and 8

New Simulation Tests in English for Grades 3,4,5,6,7, and 8

Recommended Uses for TfHS Simulation Tests

- Give the simulation tests under the same conditions that the State requires (utilize similar ancillary materials, etc.)
  - About five days prior to the State tests
    - Work through the results with students and have them psychologically ready for the real test (will provide limited time to carry out a diagnostic remediation strategy)
    - Ease test anxiety
    - Teach test-taking strategies
  - Two to four weeks before the State tests
    - Use the results to develop a diagnostic remediation crash program
  - Toward the last of the first semester
    - Use the results to develop a combination remediation program and an augmented , regular instructional process
    - Remediate the weak spots in already covered content and ensure coverage of uninstructed areas

Calibration and Validity to the Standards of Learning Tests



A paper presented at the April 2004 meeting of the American Educational Research Association San Diego, CA

A Validity and Calibration Study for a Set of Standards Diagnostic Tests

TESTS FOR HIGHER STANDARDS

David E. W. Mott and S. Stuart Flanagan

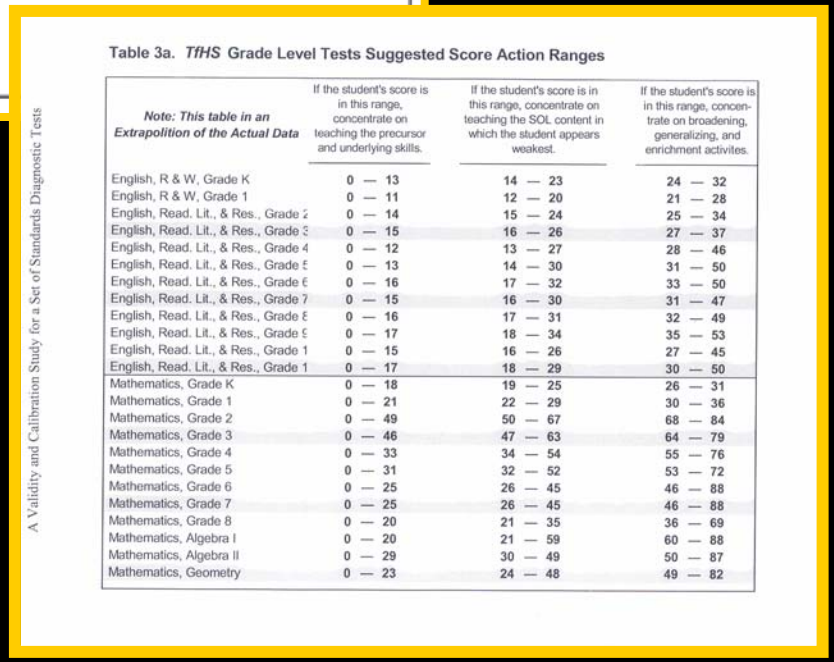


Table 3a. *TfHS* Grade Level Tests Suggested Score Action Ranges

Note: This table in an Extrapolition of the Actual Data	If the student's score is in this range, concentrate on teaching the precursor and underlying skills.	If the student's score is in this range, concentrate on teaching the SOL content in which the student appears weakest.	If the student's score is in this range, concentrate on broadening, generalizing, and enrichment activites.
English, R & W, Grade K	0 — 13	14 — 23	24 — 32
English, R & W, Grade 1	0 — 11	12 — 20	21 — 28
English, Read. Lit., & Res., Grade 2	0 — 14	15 — 24	25 — 34
English, Read. Lit., & Res., Grade 3	0 — 15	16 — 26	27 — 37
English, Read. Lit., & Res., Grade 4	0 — 12	13 — 27	28 — 46
English, Read. Lit., & Res., Grade 5	0 — 13	14 — 30	31 — 50
English, Read. Lit., & Res., Grade 6	0 — 16	17 — 32	33 — 50
English, Read. Lit., & Res., Grade 7	0 — 15	16 — 30	31 — 47
English, Read. Lit., & Res., Grade 8	0 — 16	17 — 31	32 — 49
English, Read. Lit., & Res., Grade 9	0 — 17	18 — 34	35 — 53
English, Read. Lit., & Res., Grade 10	0 — 15	16 — 26	27 — 45
English, Read. Lit., & Res., Grade 11	0 — 17	18 — 29	30 — 50
Mathematics, Grade K	0 — 18	19 — 25	26 — 31
Mathematics, Grade 1	0 — 21	22 — 29	30 — 36
Mathematics, Grade 2	0 — 49	50 — 67	68 — 84
Mathematics, Grade 3	0 — 46	47 — 63	64 — 79
Mathematics, Grade 4	0 — 33	34 — 54	55 — 76
Mathematics, Grade 5	0 — 31	32 — 52	53 — 72
Mathematics, Grade 6	0 — 25	26 — 45	46 — 88
Mathematics, Grade 7	0 — 25	26 — 45	46 — 88
Mathematics, Grade 8	0 — 20	21 — 35	36 — 69
Mathematics, Algebra I	0 — 20	21 — 59	60 — 88
Mathematics, Algebra II	0 — 29	30 — 49	50 — 87
Mathematics, Geometry	0 — 23	24 — 48	49 — 82

A Validity and Calibration Study for a Set of Standards Diagnostic Tests

Cut scores were established for each of the TfHS Simulation Tests to divide the scores into three score Action Ranges:

- **Lower range** –instruction needs to focused on precursor skills
- **Middle range** –instruction needs to focused on standard-specific remediation
- **Top range** – instruction needs to be focused on identified weaknesses and/or enrichment

Using Data to Inform Instruction

Let's Look at a Sample Classroom Matrix

Tests for Higher Standards in Mathematics – Classroom Matrix

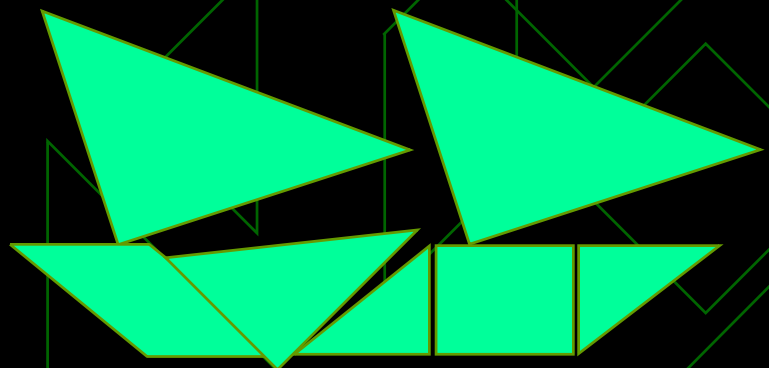
Grade 7, School _____, Teacher _____, Date Completed ____

2002 Standards

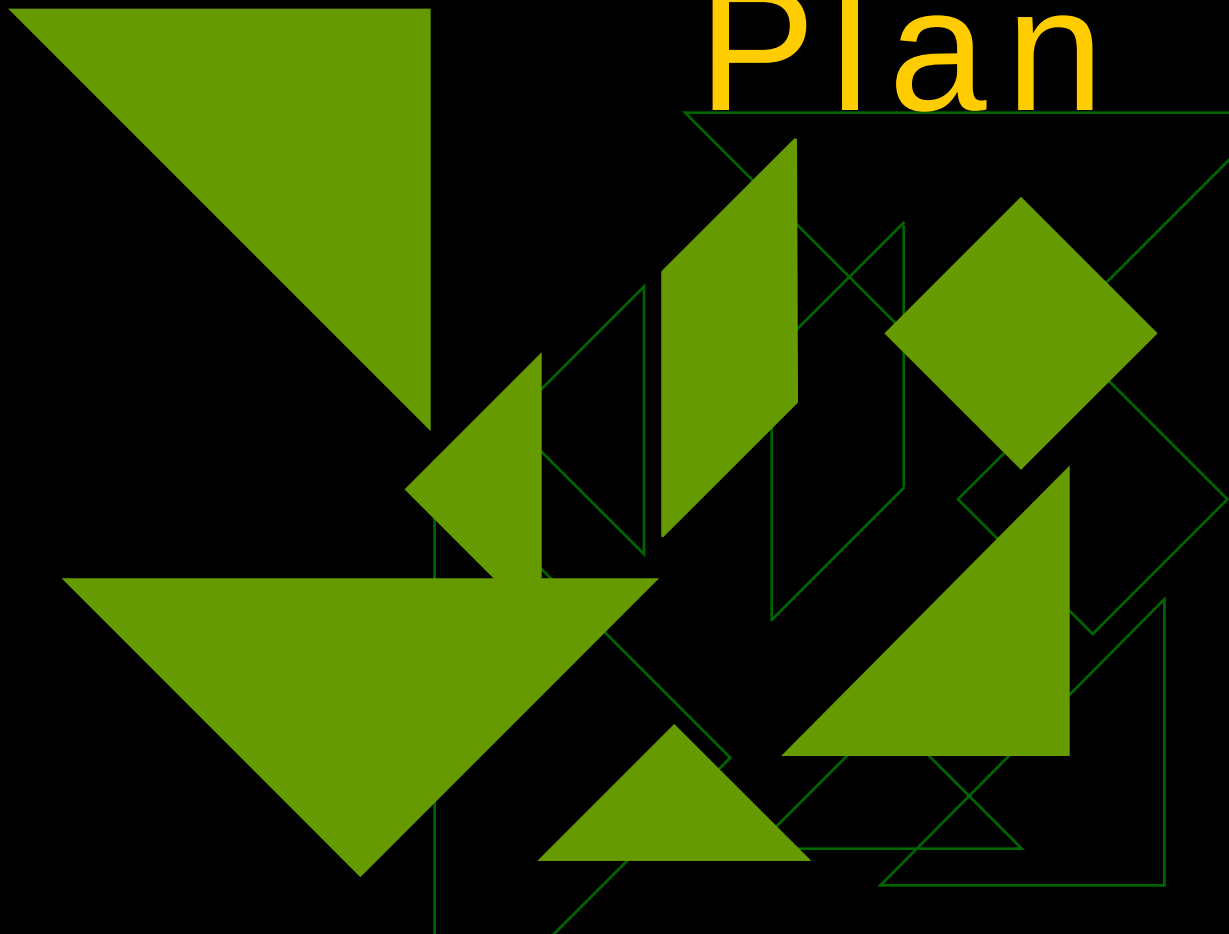
	Strand	Number & Number Sense				Computation & Estimation				Measurement			
	SOL #	7.1	7.2	7.3	7.4a	7.4b	7.5	7.6	7.7a	7.7b	7.8	7.9	
	Starting Item #	1	5	9	12	14	18	22	26	29	31	35	
	Student Names												
1	Ann	X X X		X X	X X	X	X			X X			
2	Billy				X	X							
3	Cindy	X X X X	X X	X X	X X		X			X			
4	Donna												
5	Earle	X X		X X X	X X		X			X			
6	Frank	X X		X X	X X	X	X			X X			
7	Gayle	X X		X X	X		X						
8	Henry	X			X		X X						
9	Izzy	X X X X	X X	X X X	X X	X X X X	X X	X X X	X X X		X X	X	
10													

Reflection and Questions about...

Simulation Tests



District Implementation Plan



Implementation Plan

- Phase I: Dissemination of materials, review of components, general and immediate uses
- Phase II: Content specific strategies and uses
- Phase III: Preparation for simulation tests/post-tests, using the data for remediation, remediation strategies
- Phase IV: Summer Session uses

Administrative Support and Involvement

- Supply testing materials to teachers, along with Classroom Matrices and Time/Sequence Planning Charts
  - Materials can be loaded on your school server
  - Materials can be copied on individual computers as long as materials are destroyed at the end of summer session
- Determine an assessment plan for your school
- Determine suitable plans to interact with teachers about initial test results, plans, and progress throughout the year

Administrative Support and Involvement

- Assist teachers as they develop appropriate class assessments for evaluating student achievement throughout the school year
- Assist teachers in providing remediation to students
- Review the item analysis on each assessment with the grade level and/or individual teacher…make sure that teachers are connecting assessing, analysis, and planning for instruction

Cost-cutting tips

- Classroom sets of materials
  - Not writing on tests
- Using Scanners and Online Scoring and Reporting
  - Online scoring: www.rosworks.com is available for TfHS content

Creating Benchmark and Snapshot Assessments

Creating Benchmark and Snapshot Assessments

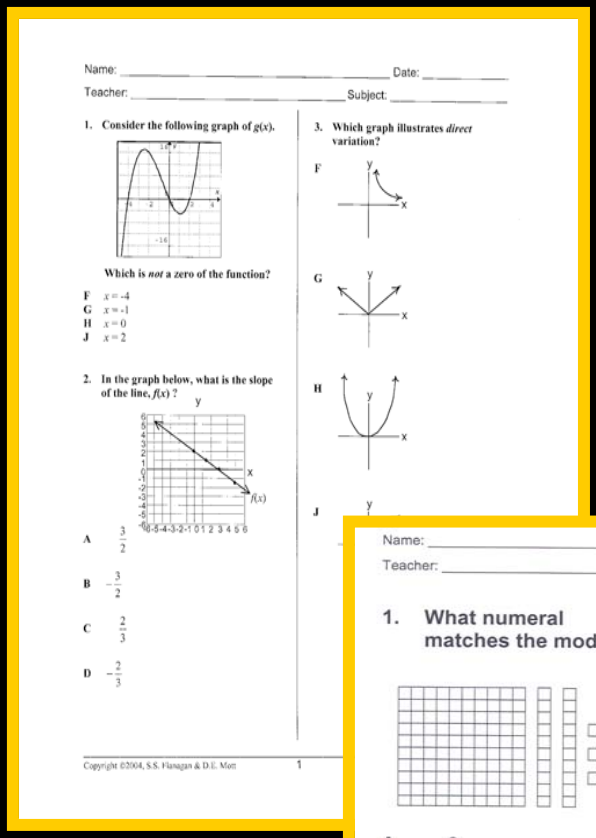
- The teacher can use periodic cumulative review to support and assess the mastery and retention of subject matter and to determine the need of:
  - reteaching
  - remediation
  - enrichment

Creating Benchmark and Snapshot Assessments

- Study your division pacing guides to decide which standards are to be covered.
- Select items from the TfHS Item Banks.
- Use the templates provided on the TfHS CD.

CUMULATIVE REVIEW...

Shoot for the moon by creating your own spiraled cumulative review and watch student success shine!!!!!



Name: _____ Date: _____

Teacher: _____ Subject: _____

1. Consider the following graph of $g(x)$.

Which is *not* a zero of the function?

F $x = -4$
G $x = -1$
H $x = 0$
J $x = 2$

2. In the graph below, what is the slope of the line, $f(x)$?

A $\frac{3}{2}$
B $-\frac{3}{2}$
C $\frac{2}{3}$
D $-\frac{2}{3}$

3. Which graph illustrates *direct* variation?

F
G
H
J

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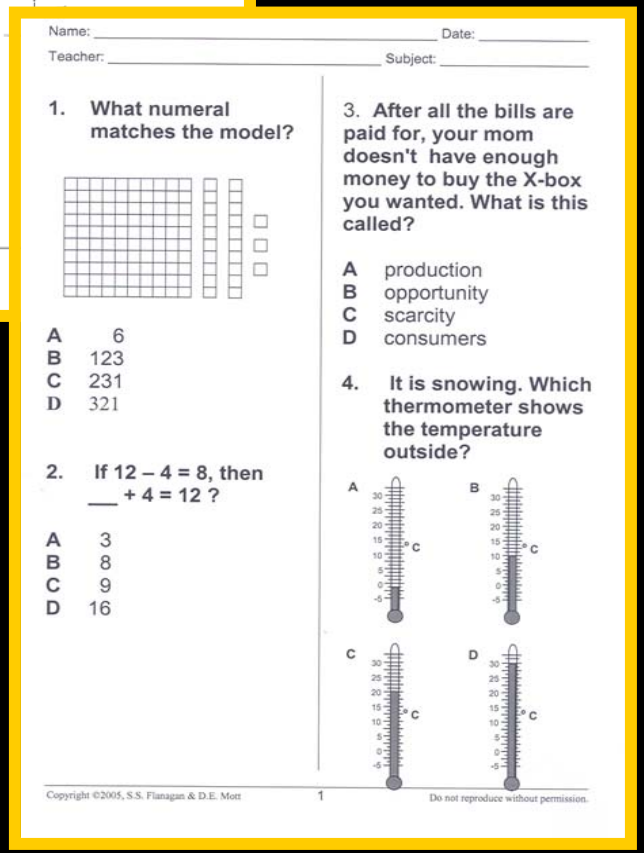

Name: _____ Date: _____

Teacher: _____ Subject: _____

1. What numeral matches the model?

A 6
B 123
C 231
D 321

2. If 12 – 4 = 8, then ___ + 4 = 12 ?

A 3
B 8
C 9
D 16

3. After all the bills are paid for, your mom doesn't have enough money to buy the X-box you wanted. What is this called?

A production
B opportunity
C scarcity
D consumers

4. It is snowing. Which thermometer shows the temperature outside?

A B C D

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You Do the Math!

- Say you commit to try spiraled cumulative review
  - 4 days a week
  - 3 multiple choice problems per day
    - How many questions reviewed per week?
    - How many questions reviewed per month?
    - After 5 months your students will have reviewed how many questions?
    - Given that simulation tests have approximately 50 questions, how many simulation tests will your students have experienced over a period of five months?

But I Just Don't Have Time to Create Quality Multiple Choice Assessments!

PROBLEM

- **Multiple choice items are difficult to write**
  - The item writer must have a thorough knowledge of the instructional objectives, content, students' levels of development and technical skills in item writing
- **Spiraled cumulative reviews take too much time to create**

SOLUTION

- **Use multiple choice items created by the experts**
  - SOL Released test items
  - TfHS Achievement Booklet items
- **Use the cut and paste technique…you are just a clip or two away from great spiraled cumulative review items**

Practice Test-Taking Strategies All Year Long

- Practice highlighting, underlining or circling key words or important details in the stem
- Ensure students can apply various strategies to solve different kinds of problems
- Ensure students understand the mechanics of test-taking, such as the need to follow instructions and check their work

Have Some Fun by Reinforcing Effort and Providing Recognition

Shoot for the Moon!
Cumulative Review Points

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

http://www.mrsperkins.com/files/100chart.doc

Let’s Create Your First Snapshot Assessment!

Directions for Creating a Snapshot

Directions for Making Snapshot Tests

1. Decide which SOLs you wish to review with the Snapshot test.
2. Select the items on the Student Achievement Booklets needed to test each SOL you have identified. Snapshot tests generally run from 6-8 items, not testing more than one or two SOLs. When selecting the items, make sure they cover the Essential Skills and Essential Knowledge from the Teacher Resource Guide. **If you desire to avoid repeated use of the items, clone or delete the items you use from the Student Booklet.**
3. The Snapshot Blank is an empty blank page set up for two columns with a line between, though it will not show this until the first column is filled. Type the SOL numbers for the test in parentheses on the empty blank page, leaving an empty line between each one.
4. With the list of items selected from the Student Achievement Booklets in number (2) above, open the first SAB document and highlight the first item you need, copy it, select its location on the snapshot test, and paste the item. Repeat for the other items from the SAB document, then repeat with the other SAB documents until you have pasted all needed items into the snapshot test. Also check the SAB items for any directions that may need to be included on the snapshot test, and paste those as necessary. The fonts, item numbers, and margins on the snapshot test will likely require adjustment. This will be done later.
5. Some items will have charts or other graphics. Some of these will be picked up by the item paste. Others will not, and they will have to be selected individually, and pasted separately into the snapshot test. Some maps, charts, etc can be selected simply by clicking on them. Others must be selected with the Select Objects arrow on the Drawing toolbar. The toolbar can be selected by View:Toolbars:Drawing. Then, click on the arrow in the toolbar and use it to draw a box around the map, chart, etc. to select it. Remember to click on the arrow again to turn it off. Some graphics are composed of drawing elements, and should be grouped together before being pasted. A few graphics have 'line-wrapping' enabled; this should be disabled after the paste as it will introduce formatting difficulties. Some graphics have text boxes; these boxes should be checked for readability after pasting, as the fonts and settings in those boxes are sometimes altered by the paste.
6. Once all the items are pasted into the snapshot test and the graphics are prepared and in place, highlight the entire test excluding the cover page. Select "Normal" as the style, Arial as the font, and 12 pt as the size (16 pt for grade 2 tests). Select a left indent of 3/8 inch (1/2 inch for grade 2 tests). At this point, read through the test and make any needed adjustments (item numbers, adding or removing ABCD lettering, adding or removing boldface). Compare the items on the snapshot test to those on the SAB for any needed changes on the snapshot tests (italics, additional indenting, etc.). Also check any directions on the snapshot test, correcting item number references as needed. Review the test for readability, making sure that graphics or passages are on the same page as their items.

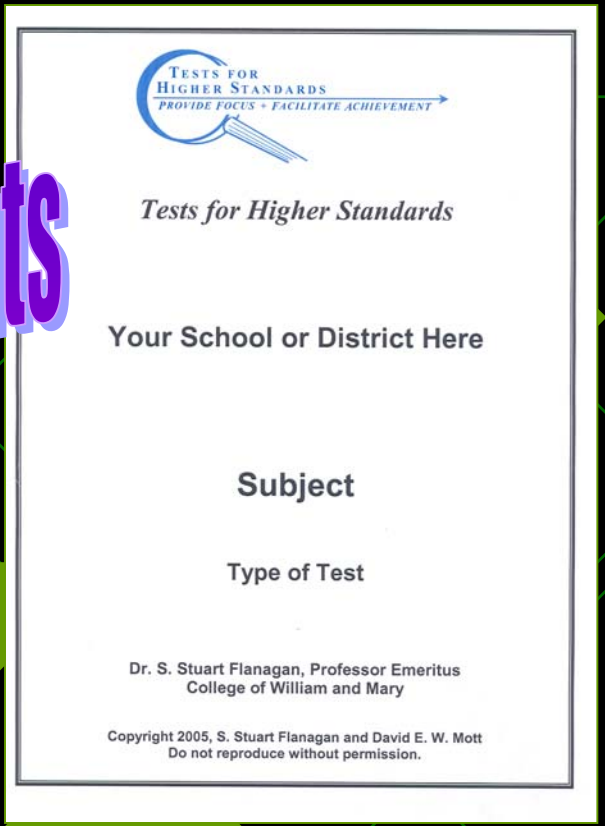
Name: _____ Date: _____

Teacher: _____ Subject: _____

Customize warm-ups, quizzes, tests, homework assignments

Creating Benchmark Assessments

Customize benchmark assessments for your school or district



Creating Benchmark Tests

1. Look at your division pacing guide and determine the SOLs that will be taught during the nine weeks of school for the subjects you are working with.
2. Make a hard copy of the sections of the Student Achievement Booklets for the grades and subjects you will be working with. Use the Student Achievement Booklets on your CD.
3. Look at the Teacher Resource Guides on the State website.

Creating Benchmark Tests

4. With **2.** and **3.** in hand, select the items on the Student Achievement Booklets needed to test each SOL you have identified.
   - You should use approximately 20-30 items (10-12 items for grades K and 1; up to 35 if needed for high school) for each subject for each nine weeks.
   - When selecting the items, make sure they cover the Essential Skills and Essential Knowledge from the Teacher Resource Guide.
   - **To avoid repeated use of the items, clone or delete the items you use from the Student Booklet.**

Directions for Creating Benchmark Assessments

Directions for Making Benchmark Tests
Test Construction

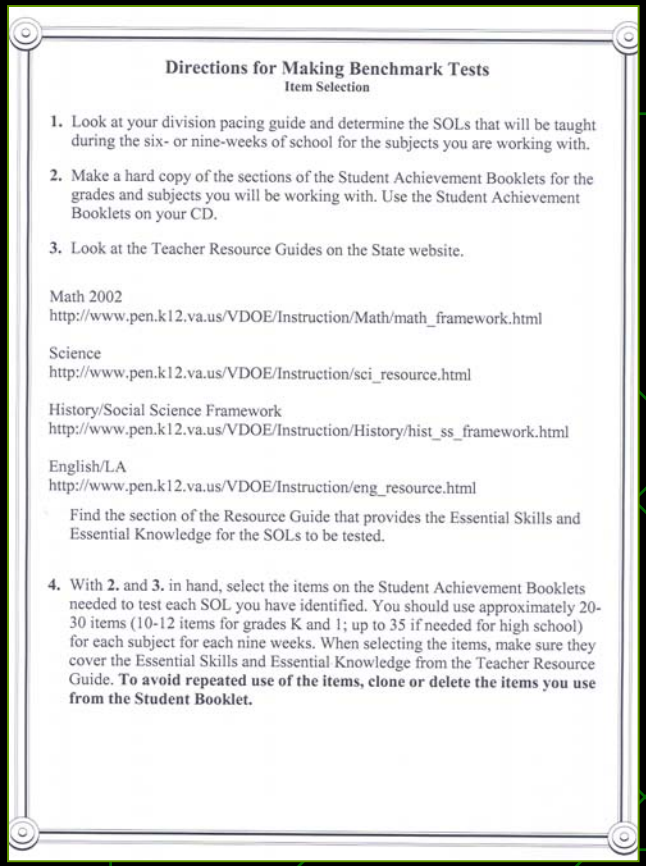
1. The Benchmark Blank test document has two pages: a cover and an empty first page. Edit the cover page for the test you are making: subject (Mathematics, Reading, Writing, Science, History/Social Science), grade or course, and which six- or nine-weeks. The empty first page has a header and footer; the header also needs to be edited to reflect the content of the test.

2. The empty blank page is set up for two columns with a line between, though it will not show this until the first column is filled. Type the SOL numbers for the test in parentheses on the empty blank page, leaving an empty line between each one.

3. With the list of items from the Student Achievement Booklets in hand, open the first SAB document and highlight the first item you need, copy it, select its location on the nine-weeks test, and paste the item. Repeat for the other items from the SAB document, then repeat with the other SAB documents until you have pasted all needed items into the nine-weeks test. Also check the SAB items for any directions that may need to be included on the benchmark test, and paste those as necessary. The fonts, item numbers, and margins on the benchmark test will likely require adjustment. This will be done later.

4. Some items will have charts or other graphics. Some of these will be picked up by the item paste. Others will not, and they will have to be selected individually, and pasted separately into the benchmark test. Some maps, charts, etc can be selected simply by clicking on them. Others must be selected with the Select Objects arrow on the Drawing toolbar. The toolbar can be selected by View:Toolbars:Drawing. Then, click on the arrow in the toolbar and use it to draw a box around the map, chart, etc. to select it. Remember to click on the arrow again to turn it off. Some graphics are composed of drawing elements, and should be grouped together before being pasted. A few graphics have 'line-wrapping' enabled; this should be disabled after the paste as it will introduce formatting difficulties. Some graphics have text boxes; these boxes should be checked for readability after pasting, as the fonts and settings in those boxes are sometimes altered by the paste.

5. Once all the items are pasted into the benchmark test and the graphics are prepared and in place, highlight the entire test excluding the cover page. Select "Normal" as the style, Arial as the font, and 12 pt as the size (16 pt for grade 2 tests). Select a left indent of 3/8 inch (1/2 inch for grade 2 tests). At this point, read through the test and make any needed adjustments (item numbers, adding or removing ABCD lettering, adding or removing boldface). Compare the items on the benchmark test to those on the SAB for any needed changes on the benchmark tests (italics, additional indenting, etc.). Also check any directions on the benchmark test, correcting item number references as needed. Review the test for readability, making sure that graphics or passages are on the same page as their items.



Directions for Making Benchmark Tests
Item Selection

1. Look at your division pacing guide and determine the SOLs that will be taught during the six- or nine-weeks of school for the subjects you are working with.

2. Make a hard copy of the sections of the Student Achievement Booklets for the grades and subjects you will be working with. Use the Student Achievement Booklets on your CD.

3. Look at the Teacher Resource Guides on the State website.

Math 2002
http://www.pen.k12.va.us/VDOE/Instruction/Math/math_framework.html

Science
http://www.pen.k12.va.us/VDOE/Instruction/sci_resource.html

History/Social Science Framework
http://www.pen.k12.va.us/VDOE/Instruction/History/hist_ss_framework.html

English/LA
http://www.pen.k12.va.us/VDOE/Instruction/eng_resource.html

Find the section of the Resource Guide that provides the Essential Skills and Essential Knowledge for the SOLs to be tested.

4. With **2.** and **3.** in hand, select the items on the Student Achievement Booklets needed to test each SOL you have identified. You should use approximately 20-30 items (10-12 items for grades K and 1; up to 35 if needed for high school) for each subject for each nine weeks. When selecting the items, make sure they cover the Essential Skills and Essential Knowledge from the Teacher Resource Guide. **To avoid repeated use of the items, clone or delete the items you use from the Student Booklet.**

Let’s Create the BEGINNING of a Benchmark Test!

CCPS Mathematics Pacing Guide
2003-04

8th Grade Mathematics

McDougal Littell
Passport to Algebra and Geometry

First Nine Weeks

SOL	Topic	Section
8.1	Order of Operations	1.4
8.5	Powers and Squares Roots	1.3, 9.1
8.1, 8.4	Evaluating Algebraic Expressions Exploring Data: Tables and Graphs	1.5, 1.6
8.1	Simplifying Numerical Expressions	2.1, 2.2
	Solving One-Step Equations	2.3-2.9
8.3	Solving Practical Problems Involving Integers	3.1-3.8
8.15	Solving Multi-Step Equations	4.1-4.5
8.17	Solving Problems Using Formulas and Functions	4.6-4.8

Second Nine Weeks

SOL	Topic	Section
8.1, 8.3	Solving Practical Problems Involving Rational Numbers	6.1-6.8, 7.1-7.5
8.1, 8.3	Solving Practical Probolems Using Percents	7.6-7.9
8.1, 8.3,	Using Ratios and Proportions	8.1-8.6
8.2	Subsets of the Real Number System	9.2, p.450
8.10	Pythagorean Theorem	9.3-9.4
8.6	Relationships Between Angles	10.1-10.4

Third Nine Weeks

SOL		
8.9		
8.8		
8.9		
8.7		
8.12		

SOL		
8.12		
8.13		
8.11		

ALIGNED CURRICULUM

"Teachers working in teams – grade levels, departments or other groups – are constantly connecting and aligning what is written, taught and tested to improve student achievement."

-Donna Dalton
Director of Curriculum and Instruction

TEAMWORK!

Be sure to check for understanding!

show your thinking

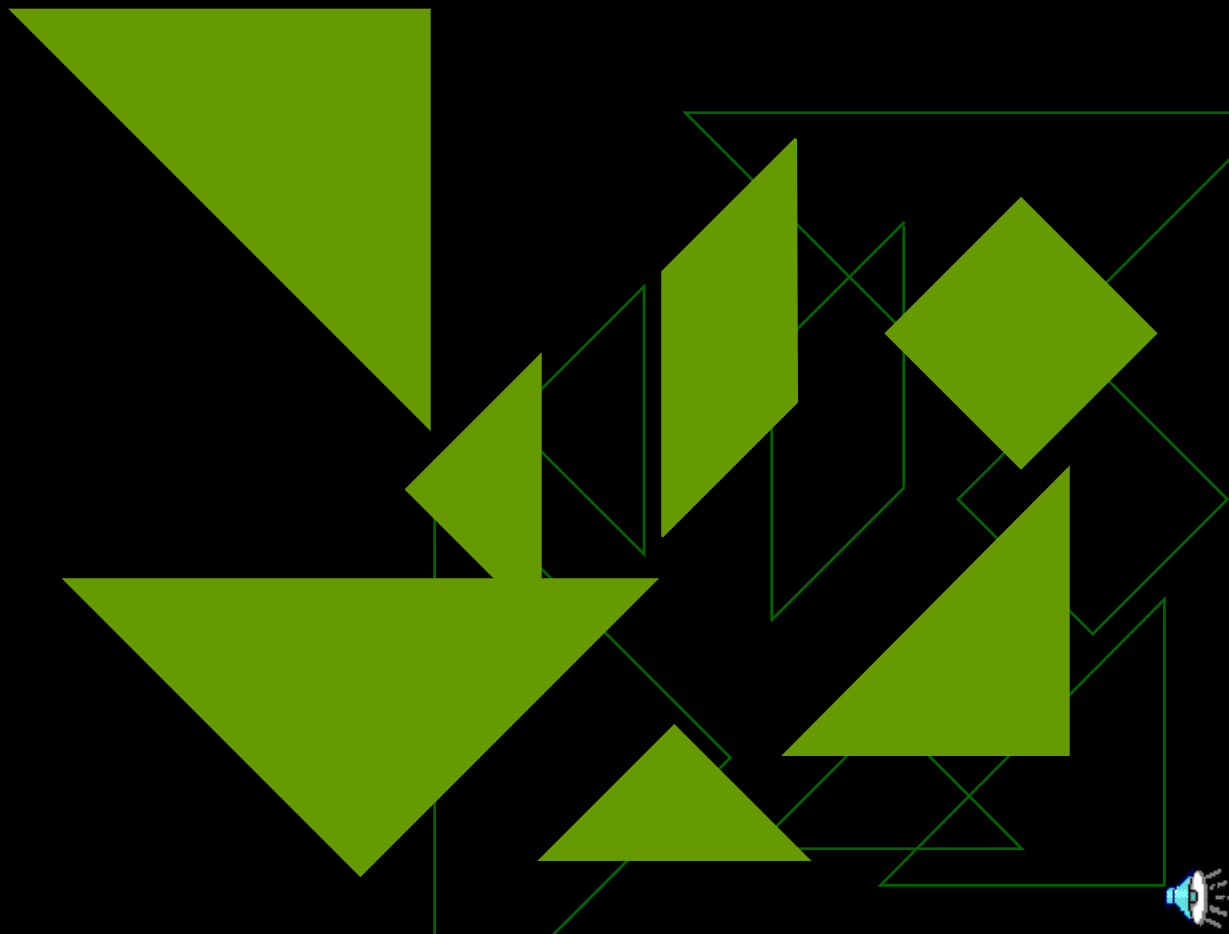
explain why you eliminated one of your choices

justify your answer

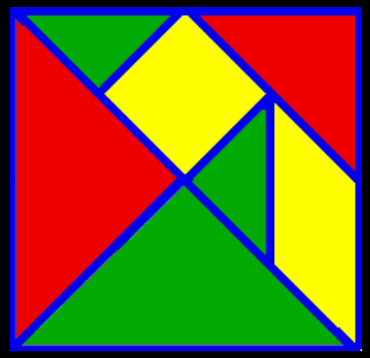
Creative Ways to Assess Students

- Games
  - Jeopardy
    - http://www.hardin.k12.ky.us/res_techn/download/blankjeopardy.ppt
  - Who Wants To Be A Winner
    - http://www.teachnet.com/lesson/misc/winnergame022500.html

How are TfHS assessments like tangram pieces?



Develop your *individual*
plan for
your school,
your teachers,
your students



We believe...

1. What we assess and how we assess communicates what we value.
2. Assessment should be learning opportunities for students not intrusions into instruction.
3. Assessment should give timely feedback on student achievement as well as on the effectiveness of instruction.
4. Assessment should reflect what is important to learn rather than what is easy to assess.
5. Assessment is ongoing and based on multiple sources of evidence.

TO BE A WINNER,

GIVE ALL YOU'VE GOT

For more information regarding TfHS contact Dr. Stuart Flanagan

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OR

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