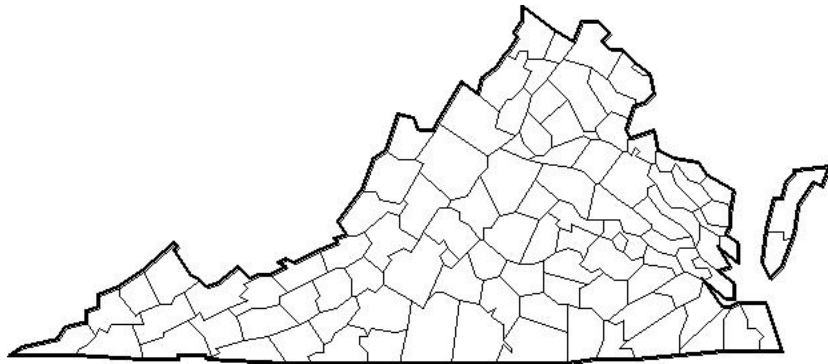


TESTS FOR HIGHER STANDARDS

**DIAGNOSIS AND
REMEDICATION**



**Recommendations for Use of
Tests for Higher Standards
Materials**

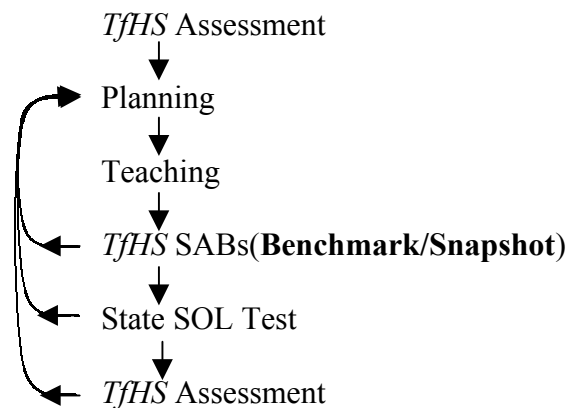
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DIAGNOSIS AND REMEDIATION

Recommendations for Use of TfHS Materials

The *Tests for Higher Standards* materials were created, in part, to provide valid, reliable, SOL-related tests to help teachers and administrators diagnose the strengths and weaknesses of their students. The materials were created with an eye toward allowing great flexibility of use, because we understood that schools and school divisions were different across Virginia. However, we have recently been asked to provide an explicit plan for their use to help our clients plan for their best use. The recommended plan that follows is one of many possibilities. However, we focus on a standards-based instructional approach and not a gains model, which usually requires pre/post tests on the content for the grade or subject. Our plan includes guidance about each of the assessment components *TfHS* offers in Virginia. The *Grade-Level Tests (GL Tests)*, the *Student Achievement Booklets (SABs)*, and the *Simulation Tests (Sim Tests)* can be used together to provide a comprehensive diagnostic system for student learning of the SOLs. Our model of the Assessment—Planning—Teaching process is shown in the chart below.

The Assessment—Planning—Teaching Process



It is obvious that assessment plays an important role in this process, as it supplies input to the planning process. Nevertheless, we do understand that *teaching itself* is the critical activity. We strongly believe that the teaching must be done according to a plan and that plan must be based on data with a focus on SOL assessment data. Data can be obtained through our Grade Level Tests, Simulation Tests, along with snapshot (3-8 items) and benchmark (6 or 9 week assessment) tests which can be generated from our

Student Achievement Books. The CD contains templates for making both benchmark and snapshot tests from the items in the Student Booklets. A good plan, based on good data, will make the best use of the most precious resource, instructional time. Our suggested plan will enhance a standards based instructional system.

You can most likely modify our suggestions and develop a plan for your school or division that would take your own situation and local needs into account. We urge you to do that. Seldom does one size fit all.

Grades K-8

First Year using TfHS materials

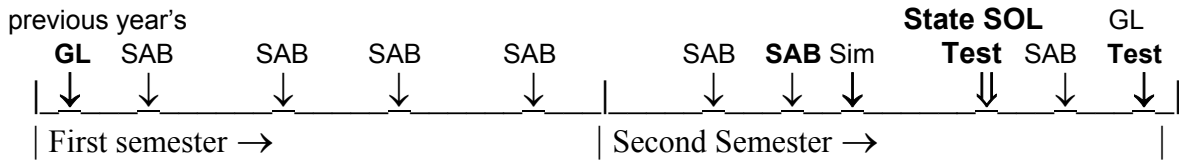
- **GRADE-LEVEL TESTS.** By the second week of school, the teacher should give the previous year's end-of-year *GL Test* as a diagnostic test. Virginia Studies would be an exception as this is usually a one-year course like high school (see high school approach). The teacher should then complete the class matrix. At this point they will have a class profile telling what needs the whole class has and specific needs of each student. These students should be retaught the material they have not learned. In some cases, immediate remediation of the whole class may be needed. In others, group work is indicated or specific work for an individual is necessary. It could mean, however, that the teacher just ensures the missing skills are taught in conjunction with other SOLs, as the occasion arises. What is important is that the teacher knows what remediation is necessary and has a plan to accomplish it. Plan instruction using the *TfHS Time Sequence Planning Chart* or some other method so that you will cover all of the SOLs prior to the SOL test date and accomplish as much remediation as possible. The blueprints for the State SOL tests can help you decide what is most important and how much time to spend teaching certain SOLs.
- **STUDENT ACHIEVEMENT BOOKLETS.** After GL testing, the teacher should have a plan for instruction which is probably complex, as it might involve whole class instruction, group and/or individual instruction at various times throughout the year etc. It is at this time that our *Student Achievement Booklets* should be used extensively to measure student success in learning a specific SOL. Teachers should use their best judgment about how many of the *SAB's* questions to use. We developed the booklets with the idea that all the items might be used to give a valid

and reliable reading of standard attainment. We know this practice will take time, but we would urge teachers to never use less than half of the items available for each SOL. Sometimes teachers have reason to suspect that the students might know certain SOLs. In that case, a teacher may give the student the odd-numbered problems from the *SABs* (using the even-numbered problems for the final assessment). We recommend that the teacher use the *SABs* as a way to stay focused on SOLs. They will obtain a systematic evaluation of both teacher effectiveness and student progress. Moreover, when the student is not making adequate progress, and tutoring or after-class assistance is needed, the *SAB* results provide specific information that a teaching assistant will need.

- **SIMULATION TESTS.** Give the *TfHS Sim Test* about three or four weeks before the *State SOL Test* to give students experience with the state format and to show general areas of weakness where last minute work may be needed. The weakest areas should be retaught. Testing at this time will also refocus teachers on the content coverage and difficulty of the State tests. However, if a teacher believes that the students are well prepared for a SOL test, the *Sim* might be given just a week before the actual test as simulation is the primary purpose. We would urge the teacher to validate the belief that the students are indeed prepared and need no additional diagnosis. As an additional caution, please realize that the *Sims* do not provide a complete diagnosis as they do not cover each and every SOL like the GL tests do. **We urge teachers to pay careful attention to the State's Blueprints as this will help them to know what is emphasized on the SOL tests and hence, assist them in prioritizing their instruction time.**

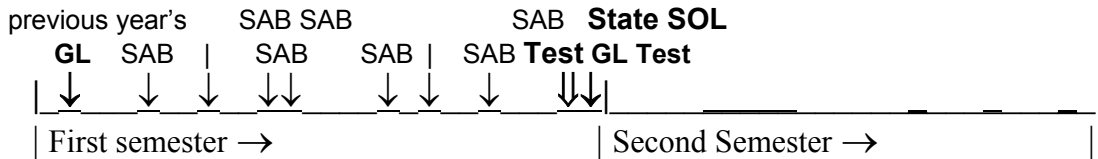
After the *State SOL Test*, near the end of the school year, give the *GL Test* covering the current year's SOL materials. These tests' results could certainly be part of the students' final semester or yearly grade. (We are actually building semester exams based on the SOLs and the pacing chart for some divisions.) When possible, it seems to be a good practice to use *TfHS* products as an integral part of instructional evaluation/grading and have less "testing." The teacher should use the results of this test, together with the results of the *State SOL Test*, to see where next year's students will need more work. The results would reveal where curriculum revisions might be needed or where a different teaching method might be appropriate.

Each individual student's results should be passed on to next year's receiving teachers. The chart below shows an example of this testing pattern.

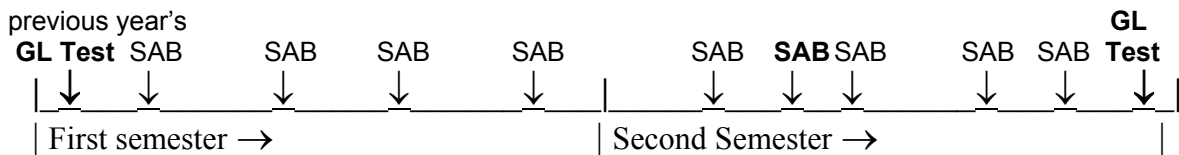


Note that if the student is enrolled in remedial summer school, the end-of-year *GL Tests* results should be used to determine what needs to be taught during the summer session. It is important that no time is wasted at the beginning of summer school discovering what the students knows and does not know. Summer school time is at a premium, as the student is behind already.

If the course is taught on a block schedule, the sequence would be similar to the above diagram but compressed into one semester.



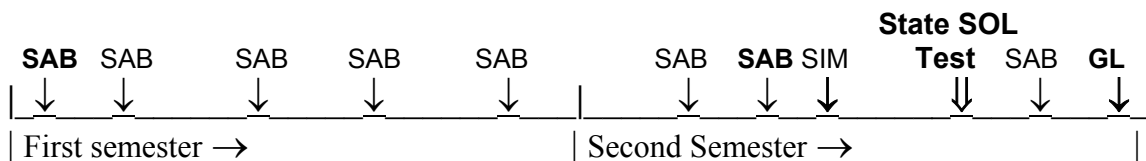
In the grades with no *State SOL Test*, exactly the same pattern can be followed, minus the *Sim Test* and *State SOL Test*. The chart below shows an example of this testing pattern. If a course is taught on a block schedule, a similar change made to the above diagram needs to be made to the diagram below.



Subsequent Years using TfHS materials

- Use the previous year's *GL Test* results as the diagnostic test for the incoming students. No beginning of year *GL Test* is necessary. As stated earlier, Virginia Studies is an exception. In every other way, the use of the *Sims* and *SABs* are the same as stated above. The chart below shows

an example of this testing pattern. However, transfer students may need a beginning *GL Test*. Based on this information and the results of other tests, the time sequence chart can be completed for the year. Again, please note that if a course is taught on a block schedule the diagram below needs to be adjusted.



High School Tests

- For many end-of-course tests, we can identify a test of precursor or enabling SOLs. Sometimes it will be the previous year's content but sometimes it is not. The table below gives our best current guidance about the content that should be covered in a beginning-of-the-year *GL Test*.

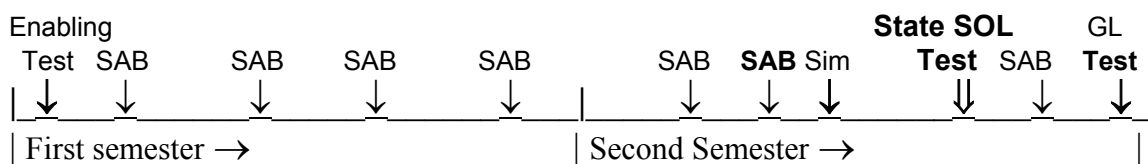
<u>Course</u>	<u>Enabling SOL</u>
Algebra I	Mathematics, Gr. 8 GL; Sims Gr. 8
Algebra II	Algebra I GL
Geometry	
English 9	Reading and Writing, GL Gr. 8; Sims Gr. 8
English 10	Reading and Writing, GL Gr. 9
English 11	Reading and Writing, GL Gr. 10
Biology	Science Gr. 6 (Life Sc.) Note: this is a low-level test.
Chemistry	none unless the GL is used
Earth Science	Science Gr. 6 (Phy. Sc.) Note: this is a low-level test.
Virginia US History	none unless the GL is used
World History I	none unless the GL is used
World History II	none unless the GL is used
World Geography	none unless the GL is used

By the second week of school, the teacher should complete the *GL Test* of the enabling SOLs as a diagnostic test. In the case of English and Mathematics, if the grade 8 GL did not yield sufficient diagnostic data, it

is possible that the grade 8 *Sims* will. This would mean that the student has to be directed back to grade 6-7 SOLs. This would be rare, but none the less necessary, should that be where the student needs remediation. Plan instruction using the *TfHS Time Sequence Planning Chart* or some other method so that all of the course's SOLs will be covered prior to the SOL test date. The teacher will have to decide if the class will benefit from taking the *GL Test* for the course. If the teacher suspects the student will score at least 20%, then giving the *GL Test* could prove helpful as a diagnostic tool.

- After teaching each SOL or group of SOLs, administer the corresponding SOL test questions from the *TfHS SABs*. Use your best judgment about how many of the *SAB*'s questions to use. The *SABs* were developed with the idea that all the items would be used. If you believe this would use too much time, we recommend teachers use at least half of the total questions per SOL. If there is reason to believe students have some substantial knowledge of a SOL, you might use the even numbered *SABs* items, using the odd numbered items after instruction to do final testing of that SOL. This is especially true where you have not given an enabling test.
- Give the *TfHS Sim Test* about three to four weeks before the *State SOL Test*. This will provide students an experience with the State format and show general areas where more last-minute work may be needed. Testing at this time will also refocus teachers on the content coverage and difficulty of the State tests. However, if a teacher believes that the students are well prepared for a SOL test, the *Sim Test* might be given just a week before the actual test, as simulation is the primary purpose. We would urge the teacher to validate the belief that the students are indeed prepared and need no additional diagnosis. As an additional caution, please realize that the *Sim Tests* do not provide a complete diagnosis, as they do not cover each and every SOL like the *GL Tests* do. **We urge teachers to pay careful attention to the State's Blueprints as this will help them to know what is emphasized on the SOL tests and hence, assist them in prioritizing their instruction time.**
- After the *State SOL Test*, near the end of the school year, or semester for block courses, give the *GL Test* covering the current year's SOL materials. When possible, it seems appropriate to use test results as part of the students' course grades. The teacher should use the results of this

test, together with the results of the *State SOL Tests*, to see where next year's students will need more work and to help explore desirable curriculum changes, etc. Certainly, each individual student's results should be passed on to next year's receiving teachers. If the student is attending summer school, these results should be the diagnostic tool that reflects what remediation would be needed. Hence, the results must be forwarded to summer school teachers and administrators. The chart below shows an example of this testing pattern. Block courses would follow this same pattern; although it would occur in just one semester.



At the end of the first semester, you might consider giving a test based on the SOLs covered, according to your division's pacing chart. We build exams for school divisions based on their pacing chart and SOLs taught therein. Some divisions give the *GL Test* for a yearlong course at the end of the first semester. They can check progress to date and see what is needed for the second semester. While we do not specifically recommend this, some school divisions claim they benefit from this practice.

IMPORTANT CONSIDERATION

Starting with LPT testing in the 1980s and continuing with SOL testing today, we find one truism that sticks out: **There must be a skill maintenance component of each teacher's instructional plan. You might call it cumulative review or ongoing snapshots. Regardless of the name, there needs to be a plan for reviewing and maintaining what has been learned and this would be especially true at the grade level where SOL testing is occurring. However, one should not limit this concept to just the testing grades.**

RESEARCH ON ASSESSMENT

We believe the research below should guide one in deciding on how to best use **TESTS FOR HIGHER STANDARDS**. The primary tools will be grade level tests, simulation tests, snapshot and benchmark tests. The total approach should focus on providing teachers with data for making effective and efficient instructional decisions. The approach needs to be ongoing and continuous to provide necessary quality control.

- **The most powerful single modification that enhances achievement is feedback. The simplest prescription for improving education must be "dollops of feedback".**

MAXIMUM POTENTIAL GAIN UP TO 35%

Hattie, J.A. (1992). Measuring the effects of schooling. *Australian Journal of Education*, 36(1), 5-13

TESTS FOR HIGHER STANDARDS, through simulation tests, grade level tests, 9-week tests, and ongoing assessments such as TfHS's minitests/student achievement booklets, provide "dollops of feedback" that is based squarely on the State's standards and only on the State's standards.

- **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.**

MAXIMUM POTENTIAL GAIN UP TO 30%

Lysakowski, R.S. and Walberg, H.J. (1981). Classroom reinforcement in relation to learning: A quantitative analysis. *Journal of Educational Research*, 75, 69-77.

Lysakowski, R.S. and Walberg, H.J. (1982). Instructional effect of cues, participation, and corrective feedback: A quantitative synthesis. *American Educational Research Journal*, 19(4), 559-578

Bangert-Downs, R.L., Kulik, C.C., Kulik, J.A., & Morgan, M. (1991). The instructional effects of feedback in test-like events. *Review of Educational Research*, 61(2), 213-238

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.

- **Assessment results need to be immediate. The greater the delay the less impact there is on achievement.**

MAXIMUM POTENTIAL GAIN UP TO 20%

Bangert-Downs, R.L., Kulik, C.C., Kulik, J.A., & Morgan, M. (1991). The instructional effects of feedback in test-like events. *Review of Educational Research*, 61(2), 213-238.

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.

- **Corrections should be specific to the task/objective.**

Crooks, T.J. (1988). The impact of classroom evaluation practices on students. *Review of Educational Research*, 58(4), 438-481.

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.

- **Students could use TfHS's Classroom Matrix and My Achievement to know and evaluate their progress.**

Trammel, D.L., Schloss, P.J., Alper, S. (1994). Using self-recording and graphing to increase completion of homework assignments. *Journal of Learning Disabilities*, 27(2), 75-81.

TESTS FOR HIGHER STANDARDS offer the student a means of mapping and/or seeing their own progress. Each and every TfHS test has an individual student response sheet that indicates the level of student achievement. For ongoing assessments, like student achievement booklets/minitests, there is an individual record of the student's performance, **My Achievement**, on each and every grade level standard. 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.

For more information on this topic that is in summary form, you might want to obtain the following ASCD publication:

CLASSROOM INSTRUCTION THAT WORKS
 Research-Based Strategies for Increasing Student Achievement
 Robert J. Marzano, Debra J. Pickering, and Jane E. Pollock

CONCLUSION

We encourage our clients to let us know how they use our materials in their division, school, or class. Please let us know what works for you; we will share that information with others as we are now doing. We have attempted to give some specific directions and suggestions for using *TfHS* materials. You are encouraged to consider alternatives to our suggestions, given your local division specifics. Again, one size does *not* fit all.

For a complete description of all our materials and how they were developed, we suggest that you refer to the User Guide and it is found at our website: <http://www.tfhs.net> .

To assist teachers in predicting students' success on the *State SOL Tests* and, more importantly, to aid in planning for the instructional process, we have compared the scores on the *TfHS* and State tests for over 6,000 students and published these results in a paper called *TfHS Simulation Tests — Validity and Calibration Study*. We also suggest how to better use the Grade-Level Test scores for instructional purposes. It is important for each school division using *TfHS* materials to have these results. If you have not received a copy of this study, please let us know and we will send you one.