Texas Math & Science Diagnostic Systems

Assessment Guide

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The robust TMDS program contains pre-configured, end of level assessments at each grade level, an item bank with approximately 4,800 math items aligned to the TEKS and categorized by objective and difficulty, permits teachers to create their own assessments, and provides immediate individual and group performance results. Moreover, the TMDS program offers flexible offline and online testing, contains online math tools such as a calculator, ruler and protractor, contains items in English and Spanish, and allows students to increase the font of items, change the font and background colors, and increase spacing.

With so much capability built into one program, one may pause and ponder "how should I use TMDS?" This document serves to answer that question by outlining a variety of assessment plans that any administrator – teacher, principal or district administrator – may consider implementing in conjunction with TMDS. These assessment plans are examples only. If anything, these example show that there is clearly no one correct way to use the application. The example plans below are intended to stimulate thought on how you will incorporate TMDS into your class, your school, or your district.

ASSESSMENT PLAN 1: Adaptive Testing

ASSESSMENT PLAN 2: Adaptive and Strand Testing

ASSESSMENT PLAN 3: Simple Pre and Post Testing

ASSESSMENT PLAN 4: Pre Test, Focused Instruction and Assessment, Post Test

ASSESSMENT PLAN 5: Benchmark Testing, End of Chapter Testing

ASSESSMENT PLAN 6: TAKS Preparation Testing

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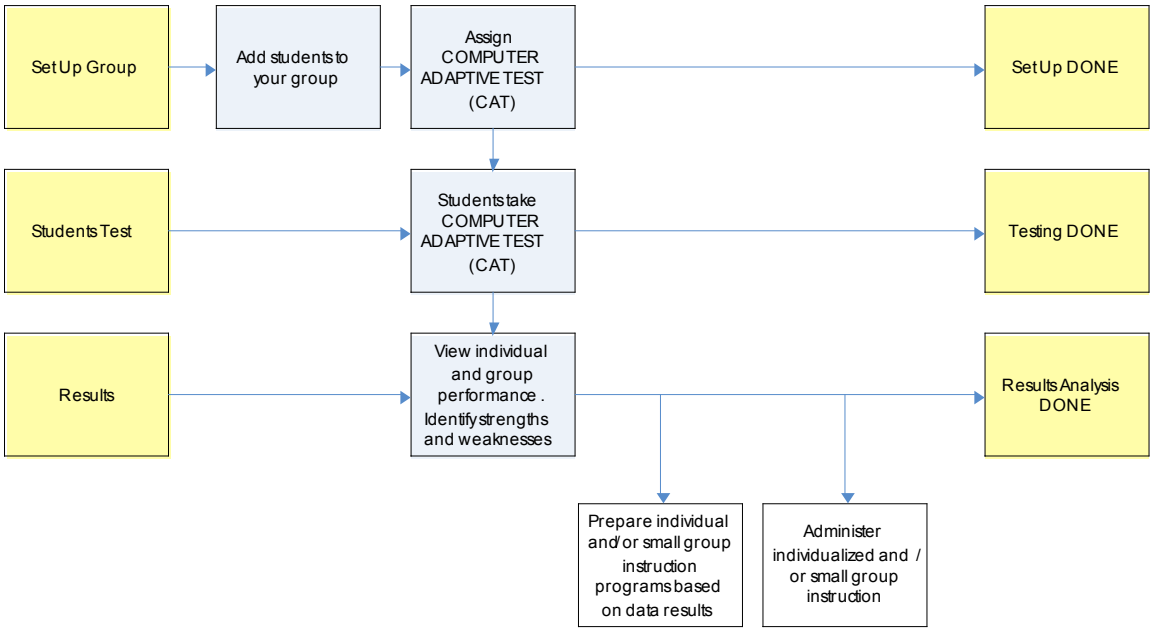
ASSESSMENT PLAN 1: Adaptive Testing



Data collection and three parameter item calibrations on TMDS items have been in progress since the inception of the program a few years ago. This psychometric research and analyses recently concluded, the result of which is the new Computer Adaptive Test (CAT) now available in TMDS. Unlike the preconfigured tests or teacher created exams, CAT has no pre-defined set of test questions. Instead, it creates individual tests for each student, on the fly, based on the student ability level and a set of parameters that instruct the adaptive engine to deliver, for example, at least 3-5 questions in each sub-strand. CAT starts with a mid-level difficulty item and, based on a correct or incorrect response, CAT searches the bank of all items (over 4,000) to find the next best fit for that particular student. Since CAT is not restricted to delivering grade level items only (for example, only 8th grade items to 8th grade students) it can and will deliver below grade level items to students struggling with on-level questions and, likewise, will deliver above grade level items to students demonstrating mastery of on-level question. Thus, with CAT, unlike linear grade level tests, results are particularly useful because teachers can receive important information indicating student weaknesses at ***or*** below grade level. This information may be deemed critical in developing an appropriate instructional plan; one that first concentrates on core concepts below grade level prior to advancing with the grade level lesson plans and curriculum.

Delivering CAT in TMDS is easy.

1. **Set up Group:** From the list of all students in the school, select the students that will take the CAT. Name the group, for example: My Class, CAT.

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2. **Assign the test:** For the group created in step 1 above, now assign the CAT test.
3. **Administer the CAT test:** Students log onto the system using their first and last name, and data of birth. When they reach their test center, instruct the student to click on the CAT test, and answer each question to the best of their ability.
4. **View reports:** Once all of the students complete the CAT, log in and run a CAT report. This report will provide data on the entire group's performance. Quite different from any preconfigured test or teacher created test, it is noteworthy that each student took a different test. While some items may appear on more than one student's test, for the most part, students will see and answer a unique set of test questions. Based on results, some teachers may recommend tutoring, additional one on one time with the teacher, attending a pre or after school program, or other individualized plan focused on teaching core concepts taught in previous grades that are critical to understanding higher level concepts. In addition, student results may indicate that a group of students need additional instruction on a set of TEKS; while another group of students need additional instruction on a different set of TEKS. Without this information, lesson plans may have been designed and delivered to the class as a whole, without knowing that a sub-group already comprehends that matter and needs help elsewhere. With this information, a teacher may elect to divide the class and focus each group on the specific matter and concepts it needs extra help on.

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COMPUTER ADAPTIVE TEST ACTIVITY CHECK LIST

	Activity	Details	Notes
Computer Adaptive Test Plan			
◯	Set up group of students	Group Name: _____ Students: 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ 12. _____ 13. _____ 14. _____ 15. _____ 16. _____ 17. _____ 18. _____ 19. _____	

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		20. _____	
◯	Assign the computer adaptive test to the group	Date CAT Test Assigned: _____	
◯	Schedule time in computer lab for students to take the CAT	Dates and time scheduled: _____	If you do not have computers or laptops in the class room, you will need to coordinate with the computer lab personnel to schedule time in the lab for testing.
◯	Administer the CAT	Students take the CAT. Date all students finished the CAT: _____	
◯	Run CAT report. Print and file CAT group report and/or individual reports.	Date ran: _____ Date printed: _____	Consider including individual student performance report in student take-home file for parent review. In addition, the TMDS individual report is designed to encourage the student to review questions and determine, on their own, why they answered a question incorrectly. The student report lists the correct answer and the student answer for each item and, by clicking on the item number, provides the text of each question.
◯	Identify potential areas of weakness. Consider small working groups based on strengths and weaknesses. Consider review	Areas of weakness: _____ _____ Possible small groups:	Since CAT delivers a unique test form to each student, individual instruction and/or small group instruction may need to target pre-grade level TEKS. The benefits of the CAT are: • Each student is given a test based on their

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	of example questions with the class (questions aligned to TEKS that all or substantially all of the class answered incorrectly)	_____ _____ Questions to review with the class: _____ _____	individual ability level; • Test results provide data on student ability across grade levels; • Plans and remediation can incorporate key concepts that may or may not be at grade level; • Instruction can be targeted to each student's ability and specific weaknesses.

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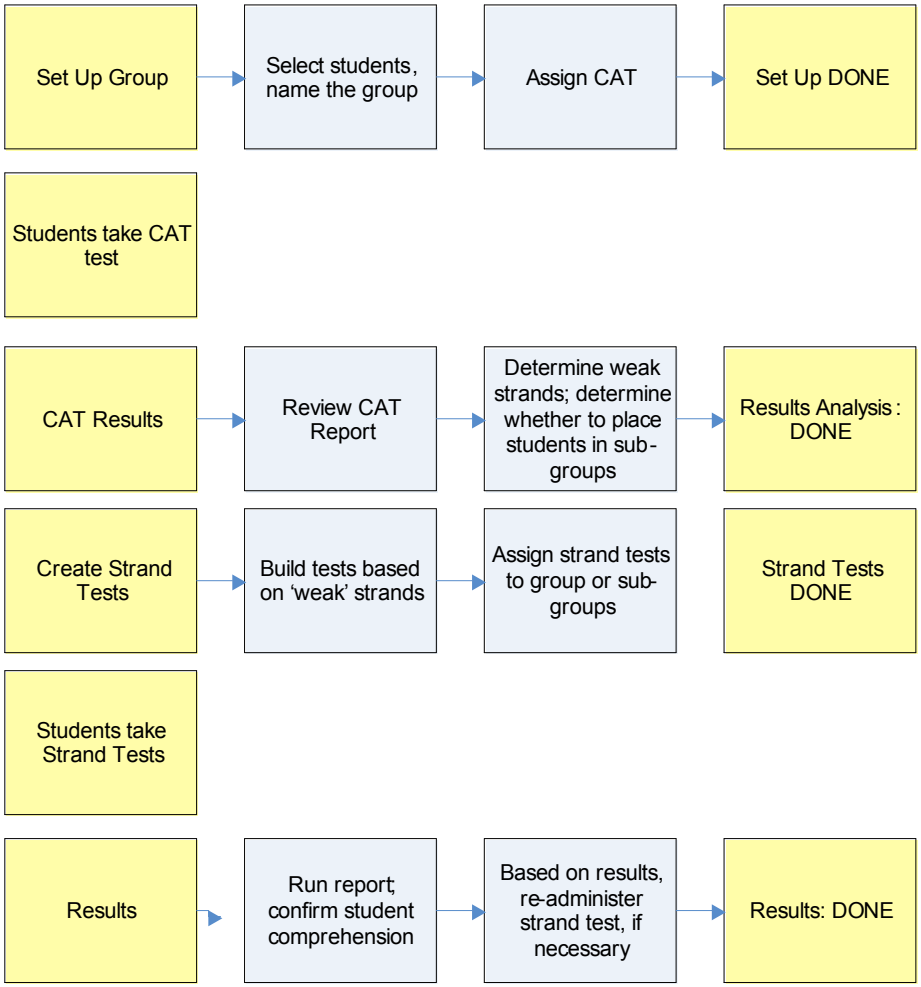
ASSESSMENT PLAN 2: CAT and Strand Testing



The CAT plus strand testing plan extends CAT testing with follow up, focused 'mini' tests containing items aligned to specific TEKS that students answered incorrectly. It's everything in the CAT plan plus more. The 'more' includes building and administering strand tests to sub-groups of students in need of extra help and focus in specific areas. By mastering the content and questions on the strand tests, students can gain confidence in their abilities to perform and apply mathematical formulas and concepts that they did not have strong knowledge of initially.

Delivering the CAT, followed by strands tests, in TMDS is easy. Steps 1 through 4 are identical to the CAT test plan. Steps after 4 are the additional components for strand testing.

1. **Set up Group:** From the list of all students in the school, select the students that will take the tests. Name the group, for example: My Class.
2. **Assign the test:** For the group created in step 1 above, now assign the CAT test.

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3. **Administer the CAT test:** Students log onto the system using their first and last name, and data of birth. When they reach their test center, instruct the student to click on the CAT test, and answer each question to the best of their ability.
4. **View reports:** Once all of the students complete the test, log in and run a CAT report. This report will provide data on the entire group's performance. Quite different from any preconfigured test or teacher created test, it is noteworthy that each student took a different test. While some items may appear on more than one student's test, for the most part, students will see and answer a unique set of test questions. Based on results, some teachers may recommend tutoring, additional one on one time with the teacher, attending a pre or after school program, or other individualized plan focused on teaching core concepts taught in previous grades that are critical to understanding higher level concepts. In addition, student results may indicate that a group of students need additional instruction on a set of TEKS; while another group of students need additional instruction on a different set of TEKS. Without this information, lesson plans may have been designed and delivered to the class as a whole, without knowing that a sub-group already comprehends that matter and needs help elsewhere. With this information, a teacher may elect to divide the class and focus each group on the specific matter and concepts it needs extra help on.
5. **Develop strand tests.** Create short tests (7 to 10 questions) focused on the specific strand that students demonstrated lack of strong knowledge in. These tests may contain items from below grade-level, as the CAT may have indicated that some students need to master concepts in lower grade levels. For example, a 7th grade teacher may need to create a Probability and Statistics test with questions aligned to 5th grade TEKS.
6. **Provide interim teaching, lessons, instruction.**
7. **Assign strand tests to group.** Two options are available: (a) assign all strand tests created to the entire group and, as each student begins a test tell the student which one to select; or (b) create new groups, sub-groups and assign only the test(s) that sub-groups needs to take to it. For example, assume that half of the class needs tutoring in Probability and Statistics and the other half of the class needs tutoring in Measurement. The teacher creates a 10 question Probability and Statistics tests and a 10 question Measurement test. Under option (a), the teacher assigns both tests to the group (no new group needed). All students in that class will have access to both tests even though they may only need to take one. Here, when a student logs in, the teacher must tell the student to start either the Probability and Statistic tests or the Measurement test. Under option (b), students do not need to make a choice, since only the test they need to take will display in their test center. To accomplish this, the teacher creates two additional groups, placing the Probability and Statistics students in one group and the Measurement students in the second group. Then the teacher assigns only the Probability and Statistics test to group one; and only the Measurement test to group 2. Both

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options are feasible and the one you incorporate will be based on your personal preference.

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COMPUTER ADAPTIVE TEST (CAT) PLUS STRAND TESTING ACTIVITY CHECK LIST

	Activity	Details	Notes
Computer Adaptive Test Plus Strand Testing Plan			
◯	Set up group of students	Group Name: _____ Students: 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ 12. _____ 13. _____ 14. _____ 15. _____ 16. _____ 17. _____ 18. _____	

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		19. _____ 20. _____	
◯	Assign the computer adaptive test to the group	Date CAT Test Assigned: _____	
◯	Schedule time in computer lab for students to take the CAT	Dates and time scheduled: _____	If you do not have computers or laptops in the class room, you will need to coordinate with the computer lab personnel to schedule time in the lab for testing.
◯	Administer the CAT	Students take the CAT. Date all students finished the CAT: _____	
◯	Run CAT report. Print and file CAT group report and/or individual reports.	Date ran: _____ Date printed: _____	Consider including individual student performance report in student take-home file for parent review. In addition, the TMDS individual report is designed to encourage the student to review questions and determine, on their own, why they answered a question incorrectly. The student report lists the correct answer and the student answer for each item and, by clicking on the item number, provides the text of each question.
◯	Identify potential areas of weakness. Consider small working groups based on strengths and	Areas of weakness: _____ _____	Since CAT delivers a unique test form to each student, individual instruction and/or small group instruction may need to target pre-grade level TEKS. The benefits of the CAT are:

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	weaknesses. Consider review of example questions with the class (questions aligned to TEKS that all or substantially all of the class answered incorrectly)	Possible small groups: _____ _____ Questions to review with the class: _____ _____	• Each student is given a test based on their individual ability level; • Test results provide data on student ability across grade levels; • Plans and remediation can incorporate key concepts that may or may not be at grade level; • Instruction can be targeted to each student's ability and specific weaknesses.
Strand Tests: Start			
◯	Deliver Instruction, Lesson Plans	Deliver instruction TEKS: _____ _____	Based on CAT results, determine whether to create sub-groups and the content to be covered through instruction (either to the entire class or, separate lesson plans to mini-groups)
◯	Create Strand Tests	Test Name: _____ Number of questions: _____ TEKS covered: _____ Language: _____ Item difficulty: _____	Based on CAT results, determine the strands that students need additional focus on. Create a test with items from only that strand. For example, if half of the class needs help on Measurement and the other half needs help on Probability and Statistics, you will create two tests: one with only Measurement questions and the other with Probability and Statistics questions. Remember, since CAT results may indicate below grade level comprehension, you may need to include test items from a lower grade level on this test.
◯	Modify group of students	Group Name: _____ Students: 1. _____	You may have had some students join or leave the school since the date of the pre-test. If this occurs, add the new students and remove the students no longer in the class.

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		2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ 12. _____ 13. _____ 14. _____ 15. _____ 16. _____ 17. _____ 18. _____ 19. _____ 20. _____	You can assign all strand tests to this one group and tell each student when they log in which test to take. Alternatively, you may create two new groups based on the test each group will take. Under this option, you will place all students taking the Measurement strand test in one group and assign only that test to that group. In addition, you will place all students taking the Probability and Statistics strand test in one group and assign only that strand test to that group.
◯	Assign Strand tests	Test Name _____	See note in previous section above.
◯	Schedule time in computer lab for students to take strand	Dates and time scheduled: _____	If you do not have computers or laptops in the class room, you will need to coordinate with the computer lab personnel to

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	tests.		schedule time in the lab for testing.
◯	Administer the strand tests. .	Students take strand tests. Date all students finished testing: _____	
◯	Run item analysis on strand tests. . Print and file item analysis report and/or individual reports.	Date ran: _____ Date printed: _____	Consider including individual student performance report in student take-home file for parent review.
◯	Identify potential areas of weakness. Consider small working groups based on strengths and weaknesses. Consider review some questions with the class .	Areas of weakness: _____ _____ Possible small groups: _____ _____ Questions to review with the class: _____ _____	
Strand Tests: Finish **REPEAT Strand test steps as needed.**			

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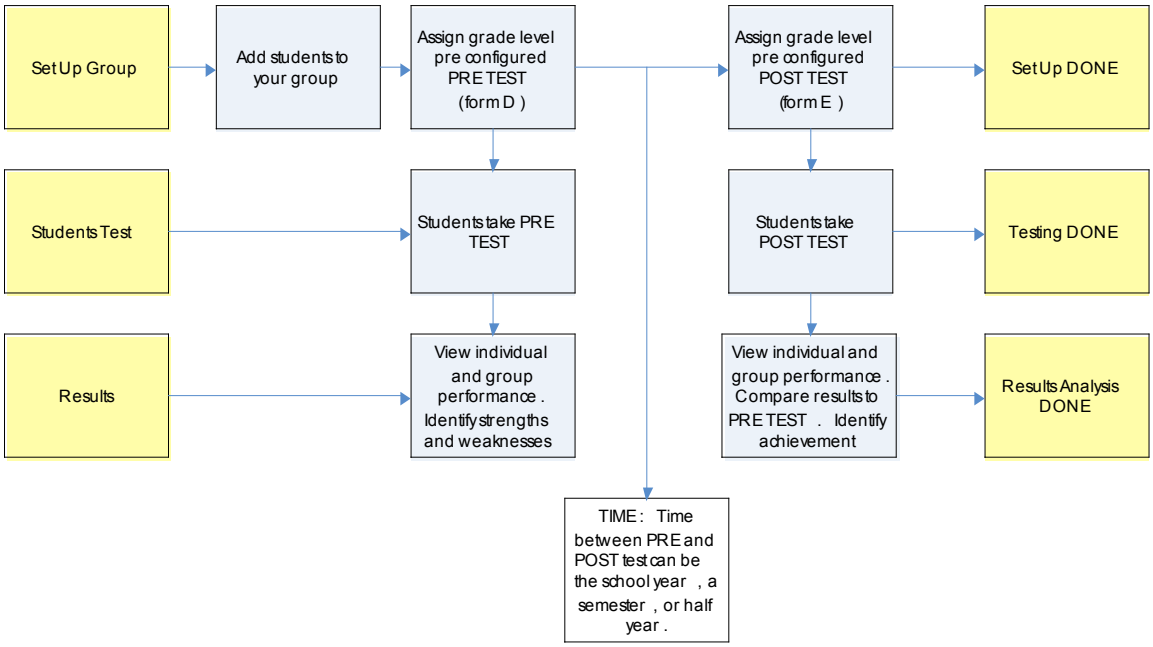
ASSESSMENT PLAN 3: Simple Pre and Post Testing



Pre and Post testing allows the teacher and student to view performance results at two specific points in time and, therefore, progress between two test events. The pre-test and the post-test should assess identical content areas, contain the same number of questions, and be as close in difficulty as possible. Given this requirement, it is not unusual for the same test to be delivered as both the pre-test and the post-test.

Often the pre-test is administered at the beginning of the school year (or semester). Since some content on the pre-test has not yet been taught, pre-test results can provide useful insight to key concepts that may pose challenges for students throughout the year. The results tell the teacher what the class knows and does not know at the start of the school year. These results can also identify areas that students should have mastered in earlier years, but have not. In the end, having pre-test results may impact, mold, and shape how and where instruction emphasis is placed throughout the academic year.

The post-test is almost always delivered at the end of the school year (or semester), after instruction has been delivered on all key TEKS. Post-test scores typically are higher than pre-test scores and allow the teacher to confirm comprehension of key concepts taught throughout the year. The post-test results tell the teacher what the class knows and does not know at the end of the school year. In addition, post-test scores can be used flag students that still misunderstand or otherwise do not fully comprehend certain core TEKS. This may lead to individualized instruction plans for some students. Proper use of pre-test and post-test score results allow for tailored instruction, focusing on areas of known weakness. In addition, by comparing pre-test and post-test score results, student progress can be measured.

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Pre and post-testing within TMDS is easy. The example shown in the graph above and described more fully below uses preconfigured test Form D as the pre-test and preconfigured test Form E as the post test. However, pre and post-testing is not limited to use of these two forms, rather, Forms D and E are used by way of example only. Since TMDS contains a bank of over 4,000 test questions, teachers can create their own pre and post-tests, and are encouraged to do so. Keep in mind the need to maintain the two tests relatively the same in terms of content coverage, length, and difficulty.

To pre and post test within TMDS using Form D and Form E, follow these basic instructions.

1. **Set up Group:** From the list of all students in the school, select the students that will take the pre-test and the post test. Name the group, for example: My Class.
2. **Assign the tests:** For the group created in step 1 above, now assign the pretest (Form D) and the post test (Form E). If you have created tests other than Form D and E, then assign the tests you created.
3. **Administer the pre test:** Students log onto the system using their first and last name, and data of birth. When they reach their test center, instruct the student to click on the pre-test, Form D and answer each question to the best of their ability.
4. **View reports:** Once all of the students complete the pretest, log in and run the item analysis report. This report will provide data on the entire group's performance. It also highlights items in RED that students answered incorrectly. It is easy to discern from this report the questions that all or substantially all of the students answered incorrectly. Each question is linked directly to a TEK. By clicking on the question, you can view the item and determine the concept misunderstood or misapplied. In addition, by clicking on the TEK you can view the specific TEKS this item covers. Teachers are encouraged to document the specific TEKS that students, in general, appear to have difficulty with. This information can be helpful in creating lesson plans and delivering instruction. In addition, questions that all or substantially all students answered incorrectly may be excellent items to review with the entire class.
5. **Repeat 3 and 4 for the post test.**
6. **Compare pre-test results and post-test results.** Once pre and post-testing concludes, the teacher can compare student results. This can be done online or on paper. Essentially, run the item analysis for the pre-test (and print the results), then run the analysis for the post-test (and print the results). By laying the reports side by side, teachers can view overall class progress from the pre-test to the post-test. Also, TMDS provides a comprehensive analysis for each student. When viewing a class analysis online, click on a student name, then on all tests. This report graphically and numerically summarizes performance on all

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tests. By viewing the bar graphs, the teacher can easily discern areas of improvement and area in need of further instruction.

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TMDS PRE AND POST-TEST ACTIVITY CHECK LIST

	Activity	Details	Notes
Pre-Test Section			
◯	Set up group of students	Group Name: _____ Students: 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ 12. _____ 13. _____ 14. _____ 15. _____ 16. _____ 17. _____ 18. _____	

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		19. _____ 20. _____	
◯	Assign Pre-test to the group	Pre-Test Form Name _____	If you know the post-test form at this point in time, you may also assign the post-test now. Ultimately with the pre-test/post-test assessment plan you will have one group with two test assignments. You can assign just the pre-test now; and wait to assign the post-test later. Or, you can assign both tests now.
◯	Schedule time in computer lab for students to take the pre-test	Dates and time scheduled: _____	If you do not have computers or laptops in the class room, you will need to coordinate with the computer lab personnel to schedule time in the lab for testing.
◯	Administer the pre-test	Students take pre-test. Date all students finished the pre-test: _____	
◯	Run item analysis on pre-test. Print and file pre test item analysis report and/or individual reports.	Date ran: _____ Date printed: _____	Consider including individual student performance report in student take-home file for parent review. In addition, the TMDS individual report is designed to encourage the student to review questions and determine, on their own, why they answered a question incorrectly. The student report lists the correct answer and the student answer for each item and, by clicking on the item number, provides the text of each question.
◯	Identify	Areas of weakness:	

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	potential areas of weakness. Consider small working groups based on strengths and weaknesses. Consider review some questions with the class (questions that all or substantially all of the class answered incorrectly)	_____ _____ Possible small groups: _____ _____ Questions to review with the class: _____ _____	
	Activity	**Details**	**Notes**
Post-Test Section			
◯	Modify group of students	Group Name: _____ Students: 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____	You may have had some students join or leave the school since the date of the pre-test. If this occurs, add the new students and remove the students no longer in the class.

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		11. _____ 12. _____ 13. _____ 14. _____ 15. _____ 16. _____ 17. _____ 18. _____ 19. _____ 20. _____	
◯	Assign Post-test to the group	Post-Test Form Name _____	If you did not assign the post-test at the time you assigned the pre-test, assign it now. Ultimately, under this assessment plan you will have one group of students with two tests assigned.
◯	Schedule time in computer lab for students to take the post-test	Dates and time scheduled: _____	If you do not have computers or laptops in the class room, you will need to coordinate with the computer lab personnel to schedule time in the lab for testing.
◯	Administer the post-test	Students take post-test. Date all students finished the post-test: _____	
◯	Run item analysis on post-test. Print and file post test item	Date ran: _____ Date printed: _____	Consider including individual student performance report in student take-home file for parent review. In addition, the TMDS individual

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	analysis report and/or individual reports.		report is designed to encourage the student to review questions and determine, on their own, why they answered a question incorrectly. The student report lists the correct answer and the student answer for each item and, by clicking on the item number, provides the text of each question.
◯	Identify potential areas of weakness. Consider small working groups based on strengths and weaknesses. Consider review some questions with the class (questions that all or substantially all of the class answered incorrectly)	Areas of weakness: _____ _____ Possible small groups: _____ _____ Questions to review with the class: _____ _____	

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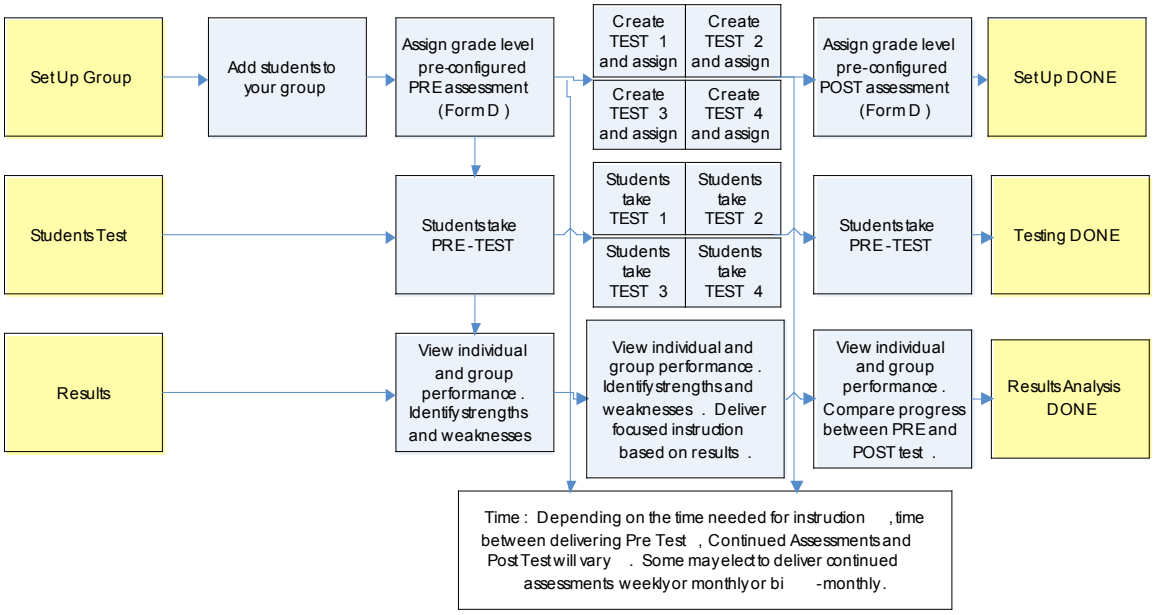
ASSESSMENT PLAN 4: Pre Test, Focused Instruction and Assessment, Post Test



This assessment plan is identical to the simple pre-test/post-test assessment plan with one key difference. While the pre and post-test assessment plan envisions instruction between the two test administration dates, this plan incorporates instruction ***and*** assessment. The example shown in the graph above, illustrates four assessments delivered between the pre-test and post-test. These interim tests usually are short (7-10 questions) and contain limited content, focused solely on the TEKS taught between tests. It is an excellent plan for teachers seeking to emphasize core mathematics concepts taught by administering 'mini' assessment aligned to those TEKS on a regular basis. In addition, interim assessments tied to lesson plans allow for a sneak preview, prior to awaiting the post-test, as to how well students mastered the newly introduced mathematics concepts. Moreover, added value is gained by delivering the interim tests in TMDS since the comprehensive student report displays results for ***all*** tests. TMDS neatly compiles all tests into one report, allowing the teacher to view overall performance on every test taken for the year at a glance.

This assessment plan requires the same steps as the pre-test and post-test plan (set up the group, assign the test, run reports for pre-test and post-test) and, ***in addition***, requires the teacher to create the interim tests and deliver the interim tests.

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To pre and post-test within TMDS (using Form D and Form E by way of example) together with interim assessments aligned to curriculum, follow these basic instructions. The example below assumes an interim assessment administered after every four weeks of instruction.

1. **Set up Group:** From the list of all students in the school, select the students that will take the tests. Name the group, for example: My Class.
2. **Assign the pre and post-tests:** For the group created in step 1 above, now assign the pretest (Form D) and the post test (Form E). If you plan to use tests other than Form D and E for pre and post-testing, then assign those tests you created.
3. **Administer the pre test:** Students log onto the system using their first and last name, and data of birth. When they reach their test center, instruct the student to click on the pre-test, Form D and answer each question to the best of their ability.
4. **View reports:** Once all of the students complete the test, log in and run the item analysis report. This report will provide data on the entire group's performance. It also highlights items in RED that students answered incorrectly. It is easy to discern from this report the questions that all or substantially all of the students answered incorrectly. Each question is linked directly to a TEK. By clicking on the question, you can view the item and determine the concept misunderstood or misapplied. In addition, by clicking on the TEK you can view the specific TEKS this item covers. Teachers are encouraged to document the specific TEKS that students, in general, appear to have difficulty with. This information can be helpful in creating lesson plans and delivering instruction. In addition, questions that all or substantially all students answered incorrectly may be excellent items to review with the entire class.
5. **Deliver instruction for four weeks.** Note, the amount of time spent delivering instruction is completely optional. You may elect to test weekly, or monthly, or some interval between there.
6. **Develop interim test 1.** Log into TMDS and create a short, interim test aligned to the instruction recently delivered. Name the test something meaningful. Select MATH as the subject. Select language (you can create a test in Spanish or in English). Select the grade level, TEK and item difficulty (easy, medium, hard). A list of items matching your parameters will display. View them; select the items you want on the test. Save the test.
7. **Assign interim test 1 to your group.** Just as you assigned the pre-test form, now assign interim test 1.

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8. **Administer interim test 1.** Students log onto the system using their first and last name, and data of birth. When they reach their test center, instruct the student to click on interim test 1 and answer each question to the best of their ability.
9. **View reports.** Once all of the students have completed interim test 1, log in and run the item analysis report. This report will provide data on the entire group's performance. It also highlights items in RED that students answered incorrectly. It is easy to discern from this test the questions that all or substantially all of the students answered correctly and/or incorrectly. Each question is linked directly to a TEK and, in this case, likely to be linked to the TEKs recently covered in class. By clicking on the question, you can view the item and determine the concept misunderstood or misapplied. Questions that all or substantially all students answered incorrectly may be excellent items to review with the entire class.
10. **Repeat steps 5-9 for interim tests 2, 3 and 4.**
11. **Repeat 3 and 4 for the post test.**
12. **Compare pre-test results and post-test results.** Once pre and post-testing concludes, the teacher can compare student results. This can be done online or on paper. Essentially, run the item analysis for the pre-test (and print the results), then run the analysis for the post-test (and print the results). By laying the reports side by side, teachers can view overall class progress from the pre-test to the post-test. Also, TMDS provides a comprehensive analysis for each student. When viewing a class analysis online, click on a student name, then on all tests. This report graphically and numerically summarizes performance on all tests. By viewing the bar graphs, the teacher can easily discern areas of improvement and area in need of further instruction.

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PRE-TEST, ONGOING INSTRUCTION AND ASSESSMENT, POST-TEST ACTIVITY CHECK LIST

	Activity	Details	Notes
Pre-Test Section			
◯	Set up group of students	Group Name: _____ Students: 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ 12. _____ 13. _____ 14. _____ 15. _____ 16. _____ 17. _____ 18. _____ 19. _____	

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		20. _____	
◯	Assign Pre-test to the group	Pre-Test Form Name _____	Eventually, this one group will be assigned the pre-test, the post-test and the interim tests. If you know the post-test at this time, you may assign it now. Similarly, if the interim tests have been created and you have them available, you may assign them now.
◯	Schedule time in computer lab for students to take the pre-test	Dates and time scheduled: _____	If you do not have computers or laptops in the class room, you will need to coordinate with the computer lab personnel to schedule time in the lab for testing.
◯	Administer the pre-test	Students take pre-test. Date all students finished the pre-test: _____	
◯	Run item analysis on pre-test. Print and file pre test item analysis report and/or individual reports.	Date ran: _____ Date printed: _____	Consider including individual student performance report in student take-home file for parent review. In addition, the TMDS individual report is designed to encourage the student to review questions and determine, on their own, why they answered a question incorrectly. The student report lists the correct answer and the student answer for each item and, by clicking on the item number, provides the text of each question.
◯	Identify potential areas of weakness. Consider small working groups	Areas of weakness: _____ _____	

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	based on strengths and weaknesses. Consider review some questions with the class (questions that all or substantially all of the class answered incorrectly)	Possible small groups: _____ _____ Questions to review with the class: _____ _____	
	Activity	**Details**	**Notes**
Interim Test 1: Start			
◯	Deliver Instruction, Lesson Plans	Deliver instruction for four weeks (or whatever timeframe works best given the curriculum, natural 'breaking' points, and other constraints). Identify the key TEKS covered. TEKS: _____ _____	
◯	Create Interim Test 1	Test Name: _____ Number of questions: _____ TEKS covered: _____ Language: _____ Item difficulty: _____	
◯	Modify group of students	Group Name: _____ Students: 1. _____	You may have had some students join or leave the school since the date of the pre-test. If this occurs, add the new students and remove the students no longer in the class.

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		2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ 12. _____ 13. _____ 14. _____ 15. _____ 16. _____ 17. _____ 18. _____ 19. _____ 20. _____	
◯	Assign Interim Test 1 to the group	Test Name _____	If you have not already done so, assign interim test 1 to the group.
◯	Schedule time in computer lab for students to	Dates and time scheduled: _____	If you do not have computers or laptops in the class room, you will need to coordinate with the

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	take interim test 1		computer lab personnel to schedule time in the lab for testing.
◯	Administer the interim test 1.	Students take interim test 1. Date all students finished testing: _____	
◯	Run item analysis on interim test 1. Print and file item analysis report and/or individual reports.	Date ran: _____ Date printed: _____	Consider including individual student performance report in student take-home file for parent review.
◯	Identify potential areas of weakness. Consider small working groups based on strengths and weaknesses. Consider review some questions with the class .	Areas of weakness: _____ _____ Possible small groups: _____ _____ Questions to review with the class: _____ _____	
Interim Test 1: Finish **REPEAT INTERIM TEST STEPS (FROM START TO FINISH) FOR EACH INTERIM TEST**			
Post-Test Section			
◯	Modify group of students	Group Name: _____	You may have had some students join or leave the school since the

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		Students: 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ 12. _____ 13. _____ 14. _____ 15. _____ 16. _____ 17. _____ 18. _____ 19. _____ 20. _____	date of the pre-test. If this occurs, add the new students and remove the students no longer in the class.
◯	Assign Post-test to the group	Post-Test Form Name _____	If you did not assign the post-test at the time you assigned the pre-test, assign it now. Ultimately, under this assessment plan you

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			will have one group of students with the pre-test, interim tests, and post-test assigned.
◯	Schedule time in computer lab for students to take the post-test	Dates and time scheduled: _____	If you do not have computers or laptops in the class room, you will need to coordinate with the computer lab personnel to schedule time in the lab for testing.
◯	Administer the post-test	Students take post-test. Date all students finished the post-test: _____	
◯	Run item analysis on post-test. Print and file post test item analysis report and/or individual reports.	Date ran: _____ Date printed: _____	Consider including individual student performance report in student take-home file for parent review.
◯	Identify potential areas of weakness. Consider small working groups based on strengths and weaknesses. Consider review some questions with the class	Areas of weakness: _____ _____ Possible small groups: _____ _____ Questions to review with the class: _____	

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		_____	
◯	Compare pre-test results and post-test results.		

	Pre	Post	Change
Total Score	____	____	____
Strand 1	____	____	____
Strand 2	____	____	____
Strand 3	____	____	____
Strand 4	____	____	____
Strand 5	____	____	____
Strand 6	____	____	____

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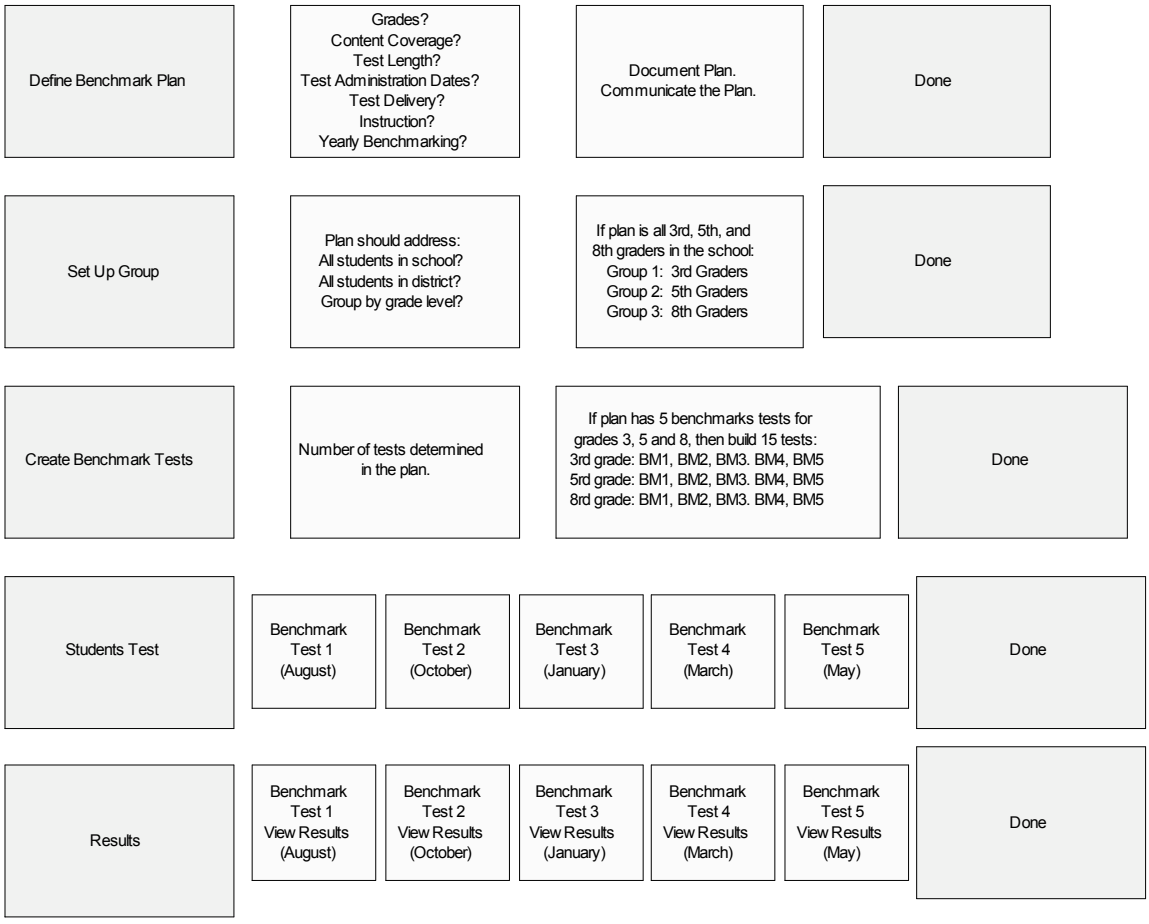
ASSESSMENT PLAN 5 Benchmark Testing, End of Chapter Testing



Benchmark testing is vehicle often used to view school-wide or district-wide performance throughout the year. It is dependent on teachers within the school, or schools across the district, adopting the same curriculum and sometimes even the same lesson plans, strategies, and teaching methodologies. If your teachers within the school (or school within a district) teach to the same curriculum, in the same order, then benchmark testing may be an assessment vehicle of interest.[1] It assesses all students in the school (or district) on a set of common questions aligned to the adopted curriculum. Upon review of the curriculum, there may be natural times to administer the benchmark tests, for example, at the end of each chapter, or at the end of each semester, or every so many weeks.

Some districts use benchmark testing to view high level patterns, trends, and needs rather than to drill down to individual performance and analyze performance on a student level. For example, a district with 25 schools can administer a benchmark test to all 5th graders

[1] Obviously, if schools are not teaching to a common curriculum, then a benchmark test is less meaningful since the questions on the test may have been taught in some schools but not yet taught in others; thus, results may be misinterpreted.

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every 6 weeks. Then, based on district-wide and school-wide results, the district administrator can identify, in general, overall strengths and weakness of 5th graders; identify schools that may have an a disproportionate percentage of struggling students and that, therefore, may be in need of additional resources and/or funding; find trends across the districts (for example, that from year to year, 5th graders consistently perform weak in Underlying Processes and Mathematical Tools) that may influence curriculum focus. In the end, benchmark testing can prove quite useful if used appropriately.[2]

Benchmark testing in TMDS is easy. The example below assumes the school level administrator creates four 5th grade benchmark tests and assigns the benchmark tests (to all 5th graders in the school). You'll notice that the steps are essentially the same as with some of the other assessment plans, just done at a higher level within the application (at the school level, not the teacher level).

1. **Set up Group:** Log in at the school level and select all 5th graders for your group. Name the group, for example: 5th Grade Benchmark.
2. **Establish the benchmark plan.** Upon reviewing the curriculum, determine: How often will we deliver a benchmark test? What will each test cover? How will the benchmark testing program be communicated to teachers? Will the plan be implemented every year? How frequently will the tests be updated (every 3, 4, 5 years)?
3. **Communicate the benchmark testing plan.**
4. **Develop benchmark test 1.** Log into TMDS and create the 5th grade benchmark 1 test, aligned to the instruction and curriculum expected to be taught during benchmark 1 instruction timeline. Select MATH as the subject. Select language (you can create a test in Spanish or in English). Select the grade level, TEK and item difficulty (easy, medium, hard). A list of items matching your parameters will display. View them; select the items you want on the test. Save the test.
5. **Assign benchmark test 1 to your group.** Assign this test to the group created in step 1. Eventually this group will have all benchmark tests assigned to it (benchmark test 1, 2, 3, and 4).
6. **Administer benchmark test 1.** According the plan communicated to the teachers, students take benchmark test 1. Student log onto the system using their first and last name, and data of birth. When they reach their test center, instruct the student to click on benchmark test 1 and answer each question to the best of their ability.
7. **View reports.** Once all of the students complete benchmark test 1, log in at the school level and run the item analysis report. This report will provide data on the entire group's performance. It also highlights items in RED that students answered incorrectly. The report will indicate

[2] TMDS benchmark testing is not intended in any way to reflect upon teacher ability whatsoever. Rather, it is a simple vehicle that can provide meaningful summary information for a large group of students (school or district based) that may identify particular needs within the district.

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potential strengths and weaknesses for all 5th grade classes in the school.[3]

8. **Repeat steps 4 to 7 for each benchmark test.**
9. **Repeat steps 1-8 annually.**

[3] If the school level administer wants teachers to view benchmark performance for their class, then a different set up model is required. The school level administrator creates the benchmark tests, but does not create a group and make the test assignments. Instead, the administrator makes the tests available to the teachers. The teachers then assign the school created tests to their groups and administer the tests in connection with the benchmark plan. When teachers assign the test to their group, then teachers can view performance of their group.

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BENCHMARK TESTING ACTIVITY CHECK LIST

	Activity	Details	Notes
Benchmark Testing Plan			
◯	Set up group of students	School Name: _____ Academic Year: _____ Group Name: _____ Students: _____	In thinking through your benchmark program, consider how frequently to deliver assessments.
◯	Create Benchmark Tests	Number of Tests: _____ Test Length: _____ **Benchmark Test 1:** Content / TEKS: _____ Test Name: _____ Admin Window: _____ **Benchmark Test 2:** Content / TEKS: _____ Test Name: _____ Admin Window: _____ **Benchmark Test 3:** Content / TEKS: _____ Test Name: _____ Admin Window: _____ **Benchmark Test 4:** Content / TEKS: _____ Test Name: _____ Admin Window: _____ **Benchmark Test 5:** Content / TEKS: _____	

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		Test Name: _____ Admin Window: _____	
◯	Assign Benchmark Tests to group	Grade: _____ Group: _____ Benchmarks Assigned: _____	Depending on how you design your benchmark program, you may have multiple groups that get assigned many tests. For example, if you are designing the program to benchmark grade 3, 5 and 8, five times during the year, you will have: Grade: 3 Group: 3rd Grade Benchmarks Assigned: 3rdBM1, 3rdBM2, 3rdBM3, 3rdBM4, 3rd BM5 Grade: 5 Group: 5rth Grade Benchmarks Assigned: 5thBM1, 5thBM2, 5thBM3, 5thBM4, 5th BM5 Grade: 8 Group: 8th Grade Benchmarks Assigned: 8thBM1, 8thBM2, 8thBM3, 8thBM4, 8th BM5
◯	Schedule time in computer lab for students to take the pre-test	Dates and time scheduled: _____	Based on the test windows for each benchmark test, if computers are not available in the classroom, you may need to coordinate several times in the computer lab. Alternatively, you may consider printing the tests, delivering them by paper and pencil, and either (a) having the students bubble in their answers electronically (use the online bubble sheet) or (b) use Vantage bubble sheets and scan results into the application.

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◯	Administer the pre-test	Students take benchmark tests as prescribed times.	
◯	Run reports	Date ran: _____ Date printed: _____	

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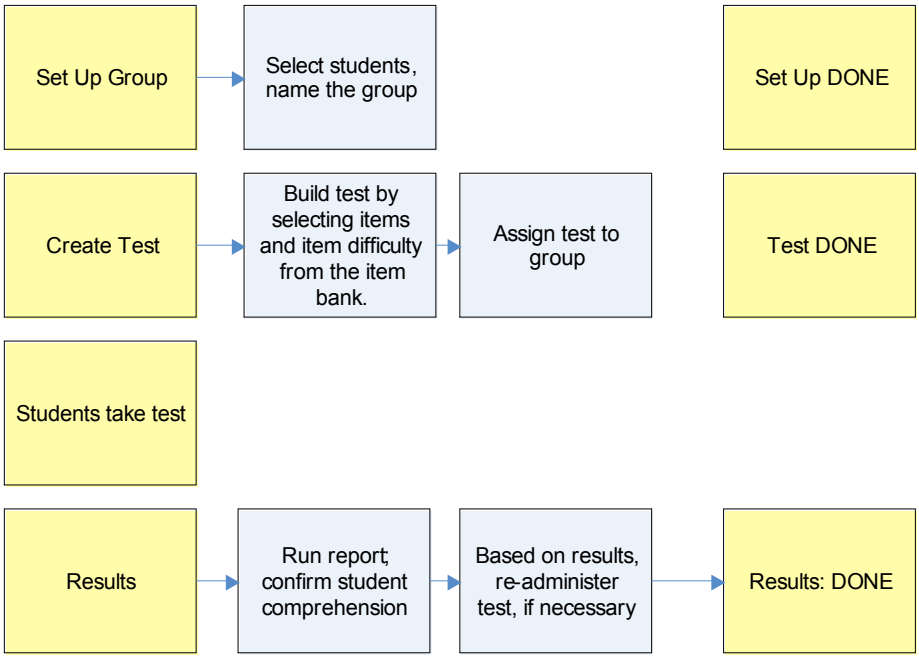
ASSESSMENT PLAN 6: TAKS Preparation Testing



TMDS was not developed for the purpose of creating TAKS prep exams. Items were not written with that neither intent nor written in "TAKS – like" item form. Retired TAKS items are not in the bank. Items have not been reviewed based any TAKS comparability or TAKS prep criteria. Test forms were not created to mimic the TAKS test. Test scores do not correlate or predict or in any way relate to TAKS scores. There is no correlation between performance in TMDS and performance of the TAKS exam. Rather, the application was designed and developed to assist teachers to better understand the overall mathematical strengths and weaknesses of the students in their class and, with that information, be positioned to more specifically tailor instruction targeting specific TEKS that need greater emphasis in the classroom.

Notwithstanding, some teachers may find 'practicing' helps reduce test anxiety, teaches students to pace accordingly, and exposes students to questions related to possible subject matter on the TAKS exam. Thus, some teachers may opt to create a practice test that: (a) is about as long in item length as the TAKS test; (b) requires the student to answer all questions in about the same amount of time as the TAKS test; and (c) contains items aligned to the TEKS covered on the TAKS. These goals can be accomplished in TMDS.

1. **Set up Group:** From the list of all students in the school, select the students that will take the post test. Name the group, for example: My Class.
2. **Create the test:** Based on your goals, create the 'practice' tests. For example, you may want to create a test about the same length of the TAKS exam and one that covers the TEKS testes on the TAKS test.

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3. **Assign the test:** For the group created in step 1 above, now assign the test created in step 2.
4. **Administer the test:** If pacing is a goal, you will want to students to complete the test within a certain amount of time. Once they start the test, write on the board the remaining amount of time. Reminders (such as 15 minutes remaining; 5 minutes remaining) may prove helpful throughout the testing period.
5. **View reports:** Once all of the students complete the test, log in and run an item analysis report. This report will provide data on the entire group's performance. You may want to have the students take the test again to further emphasize the need for pacing and to reduce test anxiety.

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ACTIVITY CHECK LIST

	Activity	Details	Notes
TAKS: Reduce Anxiety, Pace, Familiarize			
◯	Set up group of students	Group Name: _____ Students: 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ 12. _____ 13. _____ 14. _____ 15. _____ 16. _____ 17. _____ 18. _____ 19. _____	

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		20. _____	
◯	Create the test	Test Name: _____ Test Length: _____ Time Allowed: _____	Based on your goals, create a test form. For example, you may want to create at test similar in length to the TAKS test and containing items aligned to the TEKS covered on the TAKS test
◯	Assign the computer adaptive test to the group	Date CAT Test Assigned: _____	
◯	Schedule time in computer lab for students to take the test.	Dates and time scheduled: _____	If you do not have computers or laptops in the class room, you will need to coordinate with the computer lab personnel to schedule time in the lab for testing.
◯	Administer the test.	Students take the test. Date all students finished the test: _____	If it important that students answer all questions in a certain amount of time, you may consider writing on the blackboard the amount of time remaining at key intervals (total time, half, 15 minutes, 5 minutes).
◯	Run report. Print and file group report and/or individual reports.	Date ran: _____ Date printed: _____	Consider including individual student performance report in student take-home file for parent review. Consider reviewing report with student.
◯	Repeat	All	Repeat all steps as necessary.

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