

DIVE TEACHER GUIDE

For Saxon Algebra 1, 3rd Edition

Quick Start Guide

1. **Parents and Students:** Watch the [Getting Started](#) video.
2. **Critical:** Print the **STUDENT INSTRUCTION SHEET** on page 6.
3. Print the **ASSIGNMENT CHART** on page 7.
4. If your student did not use Saxon Math 87, 2nd or 3rd Edition, complete these ten five-minute facts drills that develop fluency in the essential fraction, decimal, percent, and conversion skills required to learn algebra. [Print drills](#)
5. **Critical:** Use the Timed Method, described under Syllabus on page 2.
6. See the **Weekly Schedule** section to determine the number of homework problems your student should do.
7. **Required Materials**
 - Drawing Compass
 - Ruler
 - Scientific or Graphing Calculator: [See Recommendations](#)

[Time- Saving Tips for Success](#)

Need help accessing or viewing the DIVE video lessons?

[Stream & Download Access Instructions & Tech Support](#)

VHX: Error SystemTimed Out: [Follow these Steps](#)

[CD-ROM Access Instructions & Tech Support](#)

What's Included?

Assignment Chart

The DIVE syllabus organizes assignments on a 36 week schedule. There are two types of assignments: lessons and tests. At the beginning of the year, you will typically have 5 assignments per week. As the year progresses and the concepts become more complex, there are only 3 to 4 assignments. This allows students to slow down a little during the longer lessons.

Lessons

Each lesson is made up of three parts: **DIVE Lecture, Saxon Lesson Practice, and Saxon Problem Set**. The DIVE lecture number corresponds with the assigned Saxon lesson for that day. So if you are assigned Lesson 4, you will watch DIVE Lecture 4 and complete Saxon Lesson 4 in the Saxon Student Textbook.

DIVE Video Lectures Ensure Understanding

Did you know the lesson in the Saxon textbook is not the complete lesson? John Saxon designed his program to be taught in a public school classroom by a trained Saxon instructor. So think of the DIVE lectures as going to class. **They have important instruction that is not in the textbook.** Don't skip class! The DIVE lectures will actually save time by ensuring you understand.

During the lecture students should take brief notes on headings, formulas, and key topics. Pause the lecture after Dr. Shormann teaches each example problem, pausing and rewinding as needed. They should not be look at the Saxon textbook. It is too difficult to look at the book, watch the lecture, and take notes. Because Saxon has limited practice on the new concept, Dr. Shormann uses different example problems in his lectures than the ones in the Saxon textbook. If a student needs more practice they can do the example problems in the Saxon lesson.

Saxon Lesson Practice Builds Mastery

Next, the lesson practice section is completed. This section provides practice on the new concept introduced in the DIVE lecture. Students should review the DIVE lecture as necessary.

Saxon Problem Set Builds Long-term Retention

Finally, the lesson problem set is completed. It provides more than enough review of previously learned concepts. Saxon's unique method of continual review (not spiral) means the student is either practicing the concept in the mixed practice or building on it in the new lesson. Practicing a concept daily over a long period of time has been proven to build long-term retention.

Keep in mind the Problem Set problems are just practice. It is expected that students will "forget" some of the concepts. The key is to re-learn these forgotten concepts. A lesson reference number is in parentheses next to each problem indicates which lesson that concept was taught in. Simply click on that DIVE Lecture to quickly re-learn that concept. Better than an answer, this gives students the opportunity to apply what was just learned, which builds retention.

Rarely, after re-watching the DIVE lecture, the student may not understand. Mark the problem wrong and go to the next problem. It will be corrected during the grading step.

Saxon Answer Key for Grading Daily Work

Found in the Homeschool Packet, the Answer Key provides the answers (not full solutions) to all Practice and Problem Set questions. At this level, it is recommended students grade their own work as this is part of the learning process. After seeing the correct answer, students can often find their mistake without using any other resources. If not, simply re-watch the corresponding DIVE lecture and try correcting the problem again. Homework should be graded and corrected before starting the next lesson.

Saxon Solutions Manual Provides Step-by-Step Solutions

If, after watching the DIVE lecture, the student still does not understand a problem, let them look at the Solutions Manual. Here they will find step-by-step solutions to every Problem Set question and Test question. A parent should keep this booklet and only have the student use it when grading is completed and they have corrected all the problems they can by re-watching the DIVE lecture.

Q&A Email Service with Dr. Shormann

If, after viewing the Solutions Manual, the student still does not understand the concept, use [this form](#) to contact Dr. Shormann. Typically the student has missed a foundational concept along the way and he can pinpoint that for you.

Tests

Approximately every 4 lessons there is a test. The tests are in a small booklet called Test Forms, nestled in the Homeschool Packet. The tests are cumulative, which means there are concepts from previous lessons. Students should spend 10-15 minutes studying for the test by working a few practice problems from each lesson the test covers (see assignment chart). This information is listed on the Assignment Chart. After Test 6, a one hour time limit is recommended.

Weekly Schedule

At the end of this guide there is an assignment chart that organizes the assignments over 36 weeks. Keep in mind the assignment chart is only a general guide. All students learn different concepts at different paces. The timed method below is a good way to allow students to learn at their own pace.

The Timed Method: Frustration Free Learning

Struggling or reluctant math students should work on math 5 days per week, for no more than 1-1.5 hours per day. At the end of this time, if the lesson (including grading and correcting) have not been completed, the student should stop working on math and pick up where they left off the next day. Eventually, the student will build retention and fluency, completing a lesson most days.

When stuck on a homework problem, the timed method gives students the extra time needed to go back and relearn the concept by watching the video lecture in parentheses next to the problem.

How many problems should my student do?

Each lesson has 30 homework problems. However, most students, who use DIVE and follow the system on page 6, do not need this much review. The Odds/Evens + 5 below is a method that works well for reducing the amount of review while maintaining fluency and building long-term retention. If the weekly test scores drops below 85, this means the student needs more practice and should complete all homework problems for each lesson.

New to Saxon Math?

1. Don't start the ODD/EVEN + 5 Method until after completing the first 30 lessons.
2. The first 30 lessons of each Saxon text are review and move fairly quickly. However, if you are new to Saxon/DIVE these lessons may not be review and extra time may be required to complete these lessons. It is especially important to use the Timed Method described under Weekly Schedule above. Don't be surprised if it takes 2 or 3 days to complete some lessons during this review section.

Odds or Evens + 5

With this schedule students complete the odd numbered problems on odd numbered lessons and even numbered problems on even numbered lessons. Then add 3-5 more problems from the most recent lessons (see the lesson reference number in parentheses next to each problem). For example, if you are on lesson 65, you would do all the odd numbered problems in the Mixed Practice section. Then circle 3-5 problems that have 65, 64, 63, 62, in parentheses next to the problem. This will add a review on the most recently learned concepts.

Grades

Saxon Solutions Manual Step-by-Step Solutions to all homework and tests.

This book has step-by-step solutions to every homework and test question. A grade recording form is on page 8.

Homework Grades: The homework is practice (think piano or baseball practice). Don't be concerned about the number of missed homework problems. Students are expected to miss or "forget" some of the concepts until mastery is achieved. The continual "reminder" of solving the problem in the corrections step, over a long period of time, will build mastery and long-term retention. If all the homework is completed and corrected as instructed on page 5, award a 100. Points can be deducted for sloppy work, not following instructions, etc.

Test Grades: Test scores are the only tool that should be used to measure understanding. Concepts are not tested until the student has had time to achieve mastery. Tests should be graded by a parent. Mark each wrong problem but do not correct or mark what they did wrong. Instead, the student should correct each missed problem by following the steps on page 4. Missed problems corrected on paper without using any resources should be awarded 1/2 credit. This gives the student an incentive for showing their work. Missed problems corrected by re-watching the video lecture, looking at notes, etc, are not awarded extra credit.

If test scores drop below an 80 or 85 (with extra credit for corrected problems), make sure the student is following the steps on the Instruction Sheet. Then, repeat the last 5 problem sets and retake the test. If an 80+ continue the course normally. If not, have the student do all the problems in each lesson. When test scores go up, you can try reducing the number of homework problems again.

To calculate a final grade, find the average for each column (sum of all grades divided by the number of grades) add all the grades in one column and divide by the number of grades). Then use the following formula to calculate the final grade.

$$\text{Final Grade} = (\text{Total Homework Average} \times .20) + (\text{Total Test Average} \times .80)$$

Honors or Standard Course Options

Saxon Math courses can be used as honors or standard high school course.

Honors Course: Assign the final grade based on the Honors Grade Scale below.

Standard Course: Assign the grade in the Standard Grade Scale below.

Honors Course Grading Scale	Standard Course Grading Scale
A – 93-100	A – 90 -100
B –84 – 92	B –80 – 89
C – 74 – 83	C – 70 – 79
D – 65 – 73	D – 60 – 69
F – 64 or below	F – 59 or below
I – Incomplete	I – Incomplete

Student Instructions for Lessons & Tests

Parents: Read the Syllabus & Assignment Chart section on page 1.

Print this page for daily use by the student.

1. Watch the DIVE lecture. Take brief notes on headings and formulas only. Pause the lecture and solve each example problem on your notes. Do not copy the example problems.	- Try to solve the missed problem again. If you can't, skip it and go to the next missed problem. - Repeat these steps to re-learn each missed problem.
2. Lesson Practice Problems (in Saxon Textbook) Do all the problems in the Lesson Practice Section. Re-watch the DIVE lecture, as needed.	For all problems you still cannot correct:
3 . Do the Problem Set (Odd/Even + 5) Follow these steps if you <u>can't solve a problem</u> .	View the step-by-step solution in the Saxon Solutions Manual
A. Click the DIVE lecture that matches the number in parenthesis next to the question.	Close the manual and try to solve the problem on your corrections page. Don't copy the solution.
B. Fast forward the lecture until you see a similar example problem.	Repeat these steps for each remaining missed problem.
C. Watch this section of the lecture. Pause the lecture and attempt to work the example problem in the lecture.	For any problems you cannot solve by using the solutions manual, email Dr. Shormann
D. Try to solve the homework problem again. If you can't, skip to the next question. Don't spend more than 10 minutes time "stuck" on a problem.	Tests Study by working a few practice problems from each lesson listed next to the test number on the assignment chart.
E. Repeat these steps to answer all the questions you can for this lesson.	Test should be graded by a parent. Parents, do not correct, just mark wrong problems.
4. Grade the Homework (use Answer Key in Homeschool packet). Put an x next to each wrong answer. Do not correct until the next step.	Check your work and correct all missed problems you can without using any resources.
5. Start a new page in your notebook titled, "Corrections: Lesson x".	Missed problems corrected without using resources, award ½ credit.
Correct each missed problem by:	Re-learn and correct all other missed problems by following steps under 3. A - E
Check each missed problem for careless mistakes and correct the ones you can.	Do similar problems in the Lesson Practice section to build mastery on missed problems.
For each remaining missed problem, follow steps A - C under #3 above.	For problems you can't correct, contact Dr. Shormann www.diveintomath.com/ask-a-math-question/

DIVE Assignment Chart

Critical: Use the Timed Method on page 4.

X	Week	Lessons	Test	Study	X	Week	Lessons	Tests	Study
	1	1-5				27	94-96		
	2	6-9	1	1-4		28	97-99	23	89-92
	3	10-13	2	5-8		29	100-102	24	93-96
	4	14-17	3	9-12		30	103-105		
	5	18-21	4	10-16		31	106-108	25	97-100
	6	22-25	5	17-20		32	109-111	26	101-104
	7	26-29	6	21-24		33	112-114	27	105-108
	8	30-33	7	25-28		34	115-117	28	109-112
	9	34-37	8	29-32		35	118-120	29	113-116
	10	38-41	9	33-36		36	-	30	117-120
	11	42-45	10	37-40					
	12	46-49	11	41-44					
	13	50-53	12	45-48					
	14	54-57	13	49-52					
	15	58-60							
	16	61-63	14	53-56					
	17	64-66	15	57-60					
	18	67-69	16	61-64					
	19	70-72							
	20	73-75	17	65-68					
	21	76-78	18	69-72					
	22	79-81	19	73-76					
	23	82-84							
	24	85-87	20	77-80					
	25	88-90	21	81- 84					
	26	91-93	22	85-88					

Grade Recording Form

Student Name _____ School Year _____

Course Name _____ Final Grade _____

Week	Lessons	Homework Average	Test	Test Grade
1	1-5			
2	6-9		1	
3	10-13		2	
4	14-17		3	
5	18-21		4	
6	22-25		5	
7	26-29		6	
8	30-33		7	
9	34-37		8	
10	38-41		9	
11	42-45		10	
12	46-49		11	
13	50-53		12	
14	54-57		13	
15	58-60		14	
16	61-63			
17	64-66		15	
18	67-69		16	
19	70-72		17	
20	73-75			
21	76-78		18	
22	79-81		19	
23	82-84		20	
24	85-87			
25	88-90		21	
26	91-93		22	
27	94-96		23	
28	97-99		24	
29	100-102		25	
30	103-105		26	
31	106-108		27	
32	109-111			
33	112-114		28	
34	115-117		29	
35	118-120			
36			30	
	Homework		Test Average	
			Final Grade	