

How to Use DIVE Math 8/7, 2nd Edition

What's Inside?

Syllabus

The DIVE syllabus organizes assignments on a 32 week schedule. There are three types of assignments: lessons, investigations, and tests. At the beginning of the year, you will typically have 5 assignments. As the year progresses and the concepts become more complex, there are only 3 to 4 assignments.

Lessons

Each lesson is made up of four parts: **DIVE Lecture, Saxon Facts Practice, Saxon Lesson Practice, and Saxon Mixed Practice**. 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. The lesson in the book is review for the student. If you read the lesson in the book, you are missing important information. Think of the DIVE lectures as going to class. Don't skip class!

During the lesson students should take notes and work problems with Dr. Shormann, pausing and rewinding as necessary. They should not look at their book. 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. If a student needs more practice they can do the example problems in the Saxon lesson.

Occasionally, the Saxon Lesson will refer to an Activity Sheet to introduce abstract concepts in a concrete way. These sheets can be found in the Saxon Tests & Worksheets booklet.

Saxon Facts Practice Sheets Increase Recall Speed

After the DIVE lecture, open the Saxon student textbook to the assigned Saxon lesson. At the top is a small box. The first line indicates which Facts Practice sheet to complete. Facts Practice sheets are found in the Saxon Tests & Worksheets booklet. Facts sheets are an essential part of the DIVE/Saxon program and should be completed each time they are assigned. The FAQ section explains how to help students who struggle with math facts.

Saxon Lesson Practice Develops Fluency

Next, the Lesson practice section is completed. With 5-10 problems, this section provides practice on the new concept introduced in the DIVE lecture. Students should review the

DIVE lesson as necessary.

Saxon Mixed Practice Builds Long-term Retention

Finally, the Mixed Practice section 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 which increases recall speed and raises exam scores.

Students will often forget a concept in this section. Don't be concerned about this. The important thing is to quickly re-learn the forgotten concept. A lesson reference number is in parentheses next to each problem that indicates which lesson that concept was taught in. When "stuck" on a problem, simply click on that DIVE lesson to quickly re-learn that concept. Better than an answer this gives students the opportunity to apply what was just learned, building long-term retention.

If you "help" your student by showing them how to do the problem correctly, you are removing the opportunity to build retention. This will make math harder. However, if you take the time to re-learn forgotten concepts properly, the student will eventually build fluency. This makes math faster and easier.

Saxon Solutions Manual Provides Step-by-Step Solutions

This book contains step-by-step solutions to every lesson, test, and facts sheet question. Use this book to grade these components. For details on grading, see Homework and Test Grades on page 3.

Investigations

The Investigations were added to meet specific public school standards. We recommend skipping the Investigations. The DIVE course does not include lectures for Investigations.

Tests

Approximately every 5 lessons or so there is a test. They are at the back of the Saxon Tests & Worksheets booklet. The tests are cumulative, which means there are concepts from previous lessons. The number in parentheses next to each problem indicates which lesson that concept was taught in. This makes for quick and easy re-learning of missed concepts.

Recommended Weekly Schedule

On average, 3 to 4 lessons are completed each week. Each lesson has 30 homework problems. However, most DIVE students do not need this much practice. Following is a method that works well for reducing the amount of practice while maintaining fluency and building long-term retention. If test scores drop below an 80 or 85, this means the student needs more practice and should increase the number of homework problems. To avoid overwhelming your child, do not spend more than an hour or

so (depending on age). Regardless of how much of the lesson is completed, stop and pick up where you left off the next day. Eventually, your student will build retention and fluency and complete their lessons faster and faster.

Odd & Even + 5 Schedule

With this schedule students watch the DIVE lecture, complete the Facts Practice, and Lesson Practice normally. But in the Mixed Practice sections you complete the odd numbered problems on odd numbered lessons and even numbered problems on even lessons. If you have a very strong math student, 15 problems may be enough review. Typically 15 problems do not provide enough review for most students to build fluency. Therefore, we recommend adding 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.

New to DIVE or Saxon Math?

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. During these lessons, we recommend new students complete one-half lesson per day. For example, you could watch the DIVE lecture, do the Lesson Practice, and complete the first 7-10 problems in the Mixed Practice section. The next day complete the remaining homework problems then grade and correct. This will allow extra time to learn these concepts and build retention. After the first 30 lessons or so, use the recommended weekly schedule listed above.

Homework & Test Grades

Don't be concerned about the number of missed homework problems. Students are expected to miss or "forget" some of the concepts. However, the continual "reminder" of doing the problem correctly, over a long period of time, will eventually build long-term retention. If all the homework is completed, graded and corrected, the student should receive a 100. We prefer the student grade and correct their daily work as that is part of the learning process.

Test scores are the best indicator of understanding. Tests should be graded by a parent with 1/2 credit given for missed problems in which the student can find their mistake. This gives the student an incentive for showing their work. If test scores drop below an 80 or 85, increase the number of homework problems assigned and slow the pace down. When test scores go up, you can try reducing the number of homework problems.

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.

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

Grading Scale

A – 90 -100
B –80 – 89
C – 70 – 79
D – 60 – 69
F – 59 or below
I – Incomplete

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](#)

Syllabus for Math 8/7, 2nd Edition

Parents, please watch the introductory lesson with your child. Students should watch the lesson on the DIVE CD before each Saxon lesson. DON'T SKIP class!

Daily Schedule

1. View the DIVE Syllabus

to determine which lesson to complete.

2. Watch the DIVE lecture

that corresponds with the assigned Saxon lesson. You should not be looking at the textbook during the lecture. Instead, you should take notes and work problems with Dr. Shormann, pausing and rewinding until you understand.

3. Complete Lesson Practice

in the Saxon textbook. Re-watch the DIVE lecture as needed.

4. Complete Mixed Practice

If you get stuck on a problem, rewatch the DIVE lecture (printed in parentheses next to each question). Typically there is a practice problem like the one you are attempting. Then try to do the problem again. If you can't, mark the problem wrong and move on. You will correct it in the next step.

5. Grade & correct homework daily

In the lower grades, parents should grade homework (not correct) and the child should correct it before going to the next lesson. To correct missed problems:

A. Check your work on all missed problems and see if

you can figure out the correct answer.

B. For those you can't, re-watch the DIVE lecture (printed in parentheses next to each problem) and try to correct again.

C. For those you can't, look at the Solutions Manual and see if you can figure out what you did wrong.

D. For those you still don't understand, email Dr. Shormann and he will help you.

At first, this can be a time consuming process but be patient and eventually you will build long-term retention. Then math will go faster and your test scores will be higher!

TESTS

Study for tests by working a few problems from the lessons listed on the syllabus. After a parent grades the test, correct it like this:

1. Try to correct any problems you can without looking at your book, lectures, etc. Problems corrected this way will be awarded 1/2 credit. 2. Correct all other problems using the steps listed under Grade & Correct Homework Daily.

	Lessons & Investigations	Test
1	Lessons 1-4	
2	Lessons 5-8	
3	Lessons 9-11, Investigation 1	Test 1 (1-5)
4	Lessons 12-15	Test 2 (6-10)
5	Lessons 16-19	
6	Lessons 20-22, Investigation 2	Test 3 (11-15)
7	Lessons 23-26	Test 4 (16-20)
8	Lessons 27-30	Test 5 (21-25)
9	Lessons 31-33, Investigation 3	
10	Lessons 34-37	Test 6 (26-30)
11	Lessons 38-40, Investigation 4	Test 7 (31-35)
12	Lessons 41-44	
13	Lessons 45-48	Test 8 (36-40)
14	Lessons 49-52, Investigation 5	Test 9 (41-45)
15	Lessons 53-56	Test 10 (46-50)
16	Lessons 57-60	Test 11 (51-55)
17	Lessons 61-64, Investigation 6	
18	Lessons 65-68	Test 12 (56-60)
19	Lessons 69-72, Investigation 7	Test 13 (61-65)
20	Lessons 73-76	Test 14 (66-70)
21	Lessons 77-80	Test 15 (71-75)
22	Lessons 81-84, Investigation 8	
23	Lessons 85-88	Test 16 (76-80)
24	Lessons 89-92, Investigation 9	Test 17 (81-85)
25	Lessons 93-96	Test 18 (86-90)
26	Lessons 97-100	Test 19 (91-95)
27	Lessons 101-104, Investigation 10	
28	Lessons 105-108	Test 20 (96-100)
29	Lessons 109-112, Investigation 11	Test 21 (101-105)
30	Lessons 113-116	Test 22 (106-110)
31	Lessons 117-120	Test 23 (111-115)
32	--	Test 24 (116-120)

Grade Recording Form

Student Name _____ School Year _____

Course Name _____ Final Grade _____

Week	Lessons & Investigations	Homework Average	Test	Test Grade
1	Lessons 1-4			
2	Lessons 5-8			
3	Lessons 9-11, Investigation 1		Test 1 (1-5)	
4	Lessons 12-15		Test 2 (6-10)	
5	Lessons 16-19			
6	Lessons 20-22, Investigation 2		Test 3 (11-15)	
7	Lessons 23-26		Test 4 (16-20)	
8	Lessons 27-30		Test 5 (21-25)	
9	Lessons 31-33, Investigation 3			
10	Lessons 34-37		Test 6 (26-30)	
11	Lessons 38-40, Investigation 4		Test 7 (31-35)	
12	Lessons 41-44			
13	Lessons 45-48		Test 8 (36-40)	
14	Lessons 49-52, Investigation 5		Test 9 (41-45)	
15	Lessons 53-56		Test 10 (46-50)	
16	Lessons 57-60		Test 11 (51-55)	
17	Lessons 61-64, Investigation 6			
18	Lessons 65-68		Test 12 (56-60)	
19	Lessons 69-72, Investigation 7		Test 13 (61-65)	
20	Lessons 73-76		Test 14 (66-70)	
21	Lessons 77-80		Test 15 (71-75)	
22	Lessons 81-84, Investigation 8			
23	Lessons 85-88		Test 16 (76-80)	
24	Lessons 89-92, Investigation 9		Test 17 (81-85)	
25	Lessons 93-96		Test 18 (86-90)	
26	Lessons 97-100		Test 19 (91-95)	
27	Lessons 101-104, Investigation 10			
28	Lessons 105-108		Test 20 (96-100)	
29	Lessons 109-112, Investigation 11		Test 21 (101-105)	
30	Lessons 113-116		Test 22 (106-110)	
31	Lessons 117-120		Test 23 (111-115)	
32	--			
	Homework and Test Average			
	Final Grade			

