

Math 3

Scripted Lesson Plans



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INTRODUCTION

Math is a concept-oriented discipline that builds on prior mastery. Moving on from a concept without having mastered it to the next concept is fraught with possible problems. That is why we like Saxon Math in the grammar school years. Its three-steps-forward, two-steps-back way of building and reviewing minimizes such problems.

As you may have observed, we recommend Saxon Math ahead of the grade level recommended by the publisher. It is our opinion that, based on the experience of thousands of children, our knowledge of historic standards, and observation of other countries where math is a strong suit, this is quit reasonable. However, we realize that your children may not be ready to do this yet. Taking them from where they are is necessary. The pace at which you go from there is your call.

There are those children who are ready to tackle beyond the level that we recommend. Starting them higher would generally not be as effective as moving them faster.

With math, keeping them challenged without frustrating them is a key goal.

GRADE BY GRADE

Below is the grade-by-grade breakdown for Math.

| <u>Grade</u> | <u>Curriculum</u> |
|-----------------|-------------------|
| Kindergarten | Saxon 1 |
| 1 st | Saxon 2 |
| 2 nd | Saxon 3 |
| 3 rd | Saxon 54 |
| 4 th | Saxon 65 |
| 5 th | Saxon 76 |
| 6 th | Saxon Algebra ½ |

BEFORE YOU BEGIN

1. For Saxon 1, 2 and 3
 - a. Read the Home Study Overview in the Teacher's Manual.
 - b. Refer to the Veritas Press Scholars Lesson Plans, Lesson 1 for Books and Materials that will be needed to begin.
 - c. You are ready to begin.
2. For Saxon 54, 65, 76 and Algebra ½
 - a. Become familiar with introductory materials.
 - b. Refer to the Veritas Press Scholars Lesson Plans, Lesson 1 for Books and Materials that will be needed to begin.
 - c. You are ready to begin.

ADDITIONAL THOUGHTS

Math textbook writers are known for expecting children to do every problem in every problem set. The folks at Saxon are no different. We agree with them in early levels and have generally not skipped any problems in what we recommend in the Lesson Plans through and including Saxon 65. Beginning with Saxon 76, there are times where

we don't see the necessity of doing all the problems. In such instances we have carefully selected the ones we believe most beneficial.

You will need to be the judge of whether your children are able to master the material as we have recommended. There will certainly be instances where doing more problems will be beneficial and there will be instances where even doing all that we recommend will not be the best use of the time available.

Review of Addition

Addition Stories

Missing Addends, Part 1

BOOKS

Saxon 5/4 Textbook
Saxon 5/4 Tests and Worksheets
Saxon 5/4 Solutions

MATERIALS

Facts Practice Test A–100 Addition Facts, Tests and Worksheets, pg. 13
Copy of Recording Form A – Facts Practice, Tests and Worksheets, pg. 284
Copy of Recording Form B – Lesson Worksheet, Tests and Worksheets, pg. 285
Copy of Recording Form C – Mixed Practice Solutions, Tests and Worksheets, pg. 286
Copy of Recording Form D – Scorecard, Test and Worksheets, pg. 287

OBJECTIVE

To review the basics of addition and addition stories with the child. To teach the child to find the missing addends. To increase speed of recall of addition facts.

TEACHING

Have the child take Test A–100 Addition Facts. Record time and score on a copy of Recording Form A – Facts Practice.

Do Lesson 1, pgs. 1–4 of Textbook. Use a copy of Recording Form B to record solutions and work as you complete the lesson.

ALERT: Copies should be made of Recording Form A, B, C, D, and E. These will be used more than once throughout the course. Make additional copies as needed. We will simply refer to the form names throughout the rest of the lessons.

ASSIGNMENT

Mixed Practice, pg. 5 of Textbook

COMPLETED GRADED

Have child do the Mixed Practice on a copy of Recording Form C. Solutions for Lesson 1 are in Solutions Manual, pg. 3. Record child's score on a copy of Recording Form D – Scorecard.

Missing Addends, Part 2

BOOKS

Saxon 5/4 Textbook
Saxon 5/4 Tests and Worksheets
Saxon 5/4 Solutions

MATERIALS

Facts Practice Test A–100 Addition Facts, Tests and Worksheets, pg. 14
Recording Form A – Facts Practice
Recording Form B – Lesson Worksheet
Recording Form C – Mixed Practice Solutions
Recording Form D – Scorecard

OBJECTIVE

To teach the child to find missing addends when more than two numbers are added together. To increase speed of recall of addition facts.

TEACHING

Have the child take Test A–100 Addition Facts. Record time and score on Recording Form A – Facts Practice.

Do Lesson 2, pgs. 6–7 of Textbook. Record solutions and work on Recording Form B.

ASSIGNMENT

Mixed Practice, pgs. 7–8 of Textbook

COMPLETED GRADED

Have child do the Mixed Practice on Recording Form C. Solutions for Lesson 2 are in Solutions Manual, pgs. 4–5. Record child's score on Recording Form D – Scorecard.

Sequences • Digits

BOOKS

Saxon 5/4 Textbook
Saxon 5/4 Tests and Worksheets
Saxon 5/4 Solutions

MATERIALS

Facts Practice Test A–100 Addition Facts, Tests and Worksheets, pg. 15
Recording Form A – Facts Practice
Recording Form B – Lesson Worksheet
Recording Form C – Mixed Practice Solutions
Recording Form D – Scorecard

OBJECTIVE

To teach the child to identify sequences and the definition of digits. To increase speed of recall of addition facts.

TEACHING

Have the child take Test A–100 Addition Facts. Record time and score on Recording Form A – Facts Practice.

Do Lesson 3, pgs. 9–10 of Textbook. Record solutions and work on Recording Form B.

ASSIGNMENT

Mixed Practice, pgs. 11–12 of Textbook

COMPLETED GRADED

Have child do the Mixed Practice on Recording Form C. Solutions for Lesson 3 are in Solutions Manual, pgs. 6–7. Record child's score on Recording Form D – Scorecard.

Place Value

BOOKS

Saxon 5/4 Textbook
Saxon 5/4 Tests and Worksheets
Saxon 5/4 Solutions

MATERIALS

Facts Practice Test A–100 Addition Facts, Tests and Worksheets, pg. 16
Recording Form A – Facts Practice
Recording Form B – Lesson Worksheet
Recording Form C – Mixed Practice Solutions
Recording Form D – Scorecard
Activity Sheets 1–6, Tests and Worksheets, pgs. 17–27

OBJECTIVE

To teach the child to identify position and value of place values. To increase speed of recall of addition facts.

TEACHING

Have the child take Test A–100 Addition Facts. Record time and score on Recording Form A – Facts Practice.

Do Lesson 4, pgs. 13–14 of Textbook. Record solutions and work on Recording Form B.

ALERT: This is a very important lesson. Understanding place value will be necessary as harder concepts are introduced.

ASSIGNMENT

Mixed Practice, pgs. 15–16 of Textbook

COMPLETED GRADED

Have child do the Mixed Practice on Recording Form C. Solutions for Lesson 4 are in Solutions Manual, pgs. 7–8. Record child's score on Recording Form D – Scorecard.

Ordinal Numbers • Months of the Year

BOOKS

Saxon 5/4 Textbook
Saxon 5/4 Tests and Worksheets
Saxon 5/4 Solutions

MATERIALS

Facts Practice Test A–100 Addition Facts, Tests and Worksheets, pg. 29
Recording Form A – Facts Practice
Recording Form B – Lesson Worksheet
Recording Form C – Mixed Practice Solutions
Recording Form D – Scorecard

OBJECTIVE

To teach the child to identify ordinal numbers and to calculate the positions between two ordinal numbers. To review months of the year and number of days in each month with the child and to use ordinal number to write the date numerically. To teach the child to write dates numerically. To increase speed of recall of addition facts.

TEACHING

Have the child take Test A–100 Addition Facts. Record time and score on Recording Form A – Facts Practice.

Do Lesson 5, pgs. 17–19 of Textbook. Record solutions and work on Recording Form B.

ALERT: There is a memory technique using the knuckles that can help the child remember which months have 31 days. Have him make a fist with one hand. With the finger of the other hand, touch the knuckle joint of the index finger and say “January”. Move the finger to the “valley” between the knuckles of the index finger and middle finger and say “February”. Move the finger to the knuckle joint of the middle finger and say “March”. Continue from “valley” to knuckle joint, saying the next month’s name. When you get to the knuckle joint of the small finger, you should be saying “July”. Touch this same joint again and say “August”. Then continue back to the valley between the smallest finger and the ring finger and say “September”. Continue until you reach December. Every month name said when touching the top of a knuckle joint has 31 days. All month names said when touching the “valley” between 2 knuckles has 30 days, with the exception of February which has 28 or 29.

ASSIGNMENT

Mixed Practice, pgs. 19–20 of Textbook

COMPLETED GRADED

Have child do the Mixed Practice on Recording Form C. Solutions for Lesson 5 are in Solutions Manual, pgs. 9–10. Record child’s score on Recording Form D – Scorecard.

Review of Subtraction • Addition and Subtraction Fact Families

BOOKS

Saxon 5/4 Textbook
Saxon 5/4 Tests and Worksheets
Saxon 5/4 Solutions

MATERIALS

Facts Practice Test A–100 Addition Facts, Tests and Worksheets, pg. 30
Recording Form A – Facts Practice
Recording Form B – Lesson Worksheet
Recording Form C – Mixed Practice Solutions
Recording Form D – Scorecard

OBJECTIVE

To review subtraction basics with the child. To teach the child to recognize and write addition and subtraction fact families. To increase speed of recall of addition facts.

TEACHING

Have the child take Test A–100 Addition Facts. Record time and score on Recording Form A – Facts Practice.

Do Lesson 6, pgs. 21–22 of Textbook. Record solutions and work on Recording Form B.

ASSIGNMENT

Mixed Practice, pg. 23 of Textbook

COMPLETED GRADED

Have child do the Mixed Practice on Recording Form C. Solutions for Lesson 6 are in Solutions Manual, pgs. 10–12. Record child's score on Recording Form D – Scorecard.

Writing Numbers Through 999

BOOKS

Saxon 5/4 Textbook
Saxon 5/4 Tests and Worksheets
Saxon 5/4 Solutions

MATERIALS

Facts Practice Test A–100 Addition Facts Tests and Worksheets, pg. 31
Recording Form A – Facts Practice
Recording Form B – Lesson Worksheet
Recording Form C – Mixed Practice Solutions
Recording Form D – Scorecard

OBJECTIVE

To teach the child to write numbers using words and to write the digits represented by word numbers. To increase speed of recall of addition facts.

TEACHING

Have the child take Test A–100 Addition Facts. Record time and score on Recording Form A – Facts Practice.

Do Lesson 7, pgs. 24–26 of Textbook. Record solutions and work on Recording Form B.

ASSIGNMENT

Mixed Practice, pgs. 26–27 of Textbook

COMPLETED GRADED

Have child do the Mixed Practice on Recording Form C. Solutions for Lesson 7 are in Solutions Manual, pgs. 12–13. Record child's score on Recording Form D – Scorecard.

Adding Money

BOOKS

Saxon 5/4 Textbook
Saxon 5/4 Tests and Worksheets
Saxon 5/4 Solutions

MATERIALS

Facts Practice Test B–100 Subtraction Facts, Tests and Worksheets, pg. 32
Recording Form A – Facts Practice
Recording Form B – Lesson Worksheet
Recording Form C – Mixed Practice Solutions
Recording Form D – Scorecard

OBJECTIVE

To teach the child to add amounts of money. To increase speed of recall of subtraction facts.

TEACHING

Have the child take Test B–100 Subtraction Facts. Record time and score on Recording Form A – Facts Practice.

Do Lesson 8, pgs. 28–29 of Textbook. Record solutions and work on Recording Form B.

ASSIGNMENT

Mixed Practice, pgs. 29–30 of Textbook

COMPLETED GRADED

Have child do the Mixed Practice on Recording Form C. Solutions for Lesson 8 are in Solutions Manual, pgs. 13–14. Record child's score on Recording Form D – Scorecard.

Adding with Regrouping

BOOKS

Saxon 5/4 Textbook
Saxon 5/4 Tests and Worksheets
Saxon 5/4 Solutions

MATERIALS

Facts Practice Test B–100 Subtraction Facts, Tests and Worksheets, pg. 33
Recording Form A – Facts Practice
Recording Form B – Lesson Worksheet
Recording Form C – Mixed Practice Solutions
Recording Form D – Scorecard
Money Manipulatives (from Lesson 4)

OBJECTIVE

To teach the child to add numbers together which require regrouping in the calculations. To increase speed of recall of subtraction facts.

TEACHING

Have the child take Test B–100 Subtraction Facts. Record time and score on Recording Form A – Facts Practice.

Do Lesson 9, pgs. 31–33 of Textbook. Record solutions and work on Recording Form B.

ALERT: It may be helpful to point out to the child that he may have learned this concept before using a different term such as trading or carrying. All of these terms are used to describe the same concept of addition.

ASSIGNMENT

Mixed Practice, pgs. 33–34 of Textbook

COMPLETED GRADED

Have child do the Mixed Practice on Recording Form C. Solutions for Lesson 9 are in Solutions Manual, pgs. 15–16. Record child's score on Recording Form D – Scorecard.

Even Numbers • Odd Numbers

BOOKS

Saxon 5/4 Textbook
Saxon 5/4 Tests and Worksheets
Saxon 5/4 Solutions

MATERIALS

Facts Practice Test A–100 Addition Facts, Tests and Worksheets, pg. 34
Recording Form A – Facts Practice
Recording Form B – Lesson Worksheet
Recording Form C – Mixed Practice Solutions
Recording Form D – Scorecard

OBJECTIVE

To teach the child to identify even and odd numbers. To increase speed of recall of addition facts.

TEACHING

Have the child take Test A–100 Addition Facts. Record time and score on Recording Form A – Facts Practice.

Do Lesson 10, pgs. 35–37 of Textbook. Record solutions and work on Recording Form B.

ASSIGNMENT

Mixed Practice, pgs. 37–38 of Textbook

COMPLETED GRADED

Have child do the Mixed Practice on Recording Form C. Solutions for Lesson 10 are in Solutions Manual, pgs. 16–17. Record child's score on Recording Form D – Scorecard.

Test 1

BOOKS

Saxon 5/4 Tests and Worksheets
Saxon 5/4 Solutions Manual

MATERIALS

Facts Practice Test A–100 Addition Facts, Tests and Worksheets, pg. 35
Test #1, Tests and Worksheets, pg. 237
Recording Form D – Scorecard
Copy of Recording Form E – Test Solutions, Tests and Worksheets, pg. 288

OBJECTIVE

To evaluate the child's understanding of the material through a written assessment. To increase speed of recall of addition facts.

TEACHING

Have the child do Facts Practice Test A–100 Addition Facts. Record time and score on Recording Form A.

Have the child take Test 1 using Recording Form E to record answers and work. Correct test problems using solutions on page 283 of the Solutions Manual. Record score on Recording Form D – Scorecard.

ASSIGNMENT

None

Investigation 1 – Focus on Number Lines

BOOKS

Saxon 5/4 Textbook
Saxon 5/4 Solutions Manual

MATERIALS

Ruler

OBJECTIVE

To teach the child about number lines, mathematical comparison symbols, and using number lines to calculate and compare values.

TEACHING

Do Investigation 1, pgs. 39–44.

Solutions to the problems in Investigation 1 are found on page 18 of the Solutions Manual.

ASSIGNMENT

None

Addition Stories with Missing Addends

BOOKS

Saxon 5/4 Textbook
Saxon 5/4 Tests and Worksheets
Saxon 5/4 Solutions

MATERIALS

Facts Practice Test A–100 Addition Facts, Tests and Worksheets, pg. 36
Recording Form A – Facts Practice
Recording Form B – Lesson Worksheet
Recording Form C – Mixed Practice Solutions
Recording Form D – Scorecard

OBJECTIVE

To teach the child to compute the missing numbers in a some, some more story (addition word problem). To increase speed of recall of addition facts.

TEACHING

Have the child take Test A–100 Addition Facts. Record time and score on Recording Form A – Facts Practice.

Do Lesson 11, pgs. 45–46 of Textbook. Record solutions and work on Recording Form B.

ALERT: It may be helpful to explain to the child that this lesson uses variables for the unknown numbers. Say, “In this lesson we are learning how to find missing numbers in problems. When we are writing the math sentence or equation that the story describes, instead of a question mark, we will use a letter to stand for the number that we need to figure out. This letter stands in place of the number we are going to calculate and can sometimes be called a variable.” If the child completed Saxon 3, you can add, “In Saxon 3 these type of problems were figured out but ‘smudges’ were put in place of the number we needed to calculate. It can get confusing to use ‘smudges’ so now we will begin to use letters to keep our work easy to read.”

ASSIGNMENT

Mixed Practice, pgs. 46–47 of Textbook

COMPLETED GRADED

Have child do the Mixed Practice on Recording Form C. Solutions for Lesson 11 are in Solutions Manual, pgs. 18–19. Record child’s score on Recording Form D – Scorecard.