

Math 4

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.

Sequences • Digits

BOOKS

Saxon 6/5 – Homeschool Textbook
Saxon 6/5 – Homeschool Tests and Worksheets
Saxon 6/5 – Homeschool Solutions

MATERIALS

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

OBJECTIVE

To teach the children to study a sequence and determine its counting pattern or rule. To teach the children to identify digits of a number. To increase speed of recall of addition facts.

TEACHING

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

Do Lesson 1, pgs. 1–3 of textbook. Record solutions and work on Recording Form B.

ALERT: Copies should be made of Recording Form A, B, C, D, and E, which can be found after page 261 of Tests and Worksheets. These will be used repeatedly throughout the course. Make additional copies as needed.

ASSIGNMENT

Mixed Practice, pg. 3 of textbook

COMPLETED GRADED

Have children do the Mixed Practice on Recording Form C. Solutions for Lesson 1 are in Solutions Manual, pgs. 3–4. Record children’s score on Recording Form D – Scorecard.

Even and Odd Numbers

BOOKS

Saxon 6/5 – Homeschool Textbook
Saxon 6/5 – Homeschool Tests and Worksheets
Saxon 6/5 – Homeschool 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 children to identify even and odd numbers. To teach the children to identify half of a number. To increase speed of recall of addition facts.

TEACHING

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

Do Lesson 2, pgs. 4–6 of textbook. Record solutions and work on Recording Form B.

ASSIGNMENT

Mixed Practice, pgs. 6–7 of textbook

COMPLETED GRADED

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

Using Money to Illustrate Place Value

BOOKS

Saxon 6/5 – Homeschool Textbook
Saxon 6/5 – Homeschool Tests and Worksheets
Saxon 6/5 – Homeschool Solutions

MATERIALS

Facts Practice Test A–100 Addition Facts, Tests and Worksheets, pg. 15
Activity Sheets 1–7, Tests and Worksheets, pgs. 17–29
Scissors
Zip-top Plastic Bag
Recording Form A – Facts Practice
Recording Form B – Lesson Worksheet
Recording Form C – Mixed Practice Solutions
Recording Form D – Scorecard

OBJECTIVE

To teach the children to identify place values in numbers using money as an illustration. To increase speed of recall of addition facts.

TEACHING

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

Do Lesson 3, pgs. 8–10 of textbook. Record solutions and work on Recording Form B.

ASSIGNMENT

Mixed Practice, pgs. 10–11 of textbook

COMPLETED GRADED

Have children do the Mixed Practice on Recording Form C. Solutions for Lesson 1 are in Solutions Manual, pgs. 5–6. Record children's score on Recording Form D – Scorecard.

Comparing Whole Numbers

BOOKS

Saxon 6/5 – Homeschool Textbook
Saxon 6/5 – Homeschool Tests and Worksheets
Saxon 6/5 – Homeschool 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 children to compare numbers using words and mathematical symbols. To increase speed of recall of addition facts.

TEACHING

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

Do Lesson 4, pgs. 12–14 of textbook. Record solutions and work on Recording Form B.

ALERT: Some children might find it easier to remember these symbols if you describe them in ways that paint pictures with their imaginations. Say, "One way to remember which way the symbol should go for greater than and less than is to imagine stacking the numbers up on top of each other. More numbers fit in the open or wide side and less numbers fit at the point. That can help you remember that the wide side is open to the largest number and the point is towards the smaller number. Another way to remember these symbols is to picture a very hungry alligator. This alligator is always going to want to eat the biggest number because he is so hungry. So he is going to have his mouth open towards the biggest number." You can then make the greater than symbol and draw little teeth inside to help the children with the picture. Then say, "Sometimes that alligator turns around because he sees the bigger number behind him. His mouth will still be open to the biggest number. We call that symbol the less than symbol." Draw the less than symbol and draw teeth inside of it as well.

ASSIGNMENT

Mixed Practice, pgs. 14–15 of textbook

COMPLETED GRADED

Have children do the Mixed Practice on Recording Form C. Solutions for Lesson 4 are in Solutions Manual, pgs. 6–7. Record children's score on Recording Form D – Scorecard.

Naming Whole Numbers Through Hundreds • Dollars and Cents

BOOKS

Saxon 6/5 – Homeschool Textbook
Saxon 6/5 – Homeschool Tests and Worksheets
Saxon 6/5 – Homeschool Solutions

MATERIALS

Facts Practice Test A–100 Addition 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 children to write number names and to write monetary amounts using both the appropriate numerical symbols and words. To increase speed of recall of addition facts.

TEACHING

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

Do Lesson 5, pgs. 16–17 of textbook. Record solutions and work on Recording Form B.

ALERT: For those children needing additional practice problems to master this concept, have them complete the Supplemental Practice Problems on page 636. Solutions to these problems can be found in Solutions, pg. 249.

ASSIGNMENT

Mixed Practice, pgs. 17–19 of textbook

COMPLETED GRADED

Have children do the Mixed Practice on Recording Form C. Solutions for Lesson 5 are in Solutions Manual, pgs. 7–8. Record children’s score on Recording Form D – Scorecard.

Adding One-Digit Numbers • Using the Addition Algorithm

BOOKS

Saxon 6/5 – Homeschool Textbook
Saxon 6/5 – Homeschool Tests and Worksheets
Saxon 6/5 – Homeschool Solutions

MATERIALS

Facts Practice Test A–100 Addition 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

OBJECTIVE

To teach the children to add 1-digit numbers using the commutative property of addition. To teach the children to add multi-digit numbers using the addition algorithm. To increase speed of recall of addition facts.

TEACHING

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

Do Lesson 6, pgs. 21–23 of textbook. Record solutions and work on Recording Form B.

ALERT: For those children needing additional practice problems to master this concept, have them complete the Supplemental Practice Problems on page 637. Solutions to these problems can be found in Solutions, pg. 249.

ASSIGNMENT

Mixed Practice, pgs. 23–24 of textbook

COMPLETED GRADED

Have children do the Mixed Practice on Recording Form C. Solutions for Lesson 6 are in Solutions Manual, pgs. 8–10. Record children's score on Recording Form D – Scorecard.

Writing and Comparing Numbers Through Hundred Thousands • Ordinal Numbers

BOOKS

Saxon 6/5 – Homeschool Textbook
Saxon 6/5 – Homeschool Tests and Worksheets
Saxon 6/5 – Homeschool 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 children to write number names and compare numbers through hundred thousands. To teach the children to identify ordinal numbers and to answer questions related to ordinal numbers. To increase speed of recall of addition facts.

TEACHING

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

Do Lesson 7, pgs. 25–28 of textbook. Record solutions and work on Recording Form B.

ALERT: For those children needing additional practice problems to master this concept, have them complete the Supplemental Practice Problems on pages 637–638. Solutions to these problems can be found in Solutions, pgs. 249–250.

ASSIGNMENT

Mixed Practice, pgs. 28–29 of textbook

COMPLETED GRADED

Have children do the Mixed Practice on Recording Form C. Solutions for Lesson 7 are in Solutions Manual, pgs. 10–12. Record children’s score on Recording Form D – Scorecard.

Subtraction Facts • Fact Families

BOOKS

Saxon 6/5 – Homeschool Textbook
Saxon 6/5 – Homeschool Tests and Worksheets
Saxon 6/5 – Homeschool Solutions

MATERIALS

Facts Practice Test A–100 Addition Facts, Tests and Worksheets, pg. 35
Recording Form A – Facts Practice
Recording Form B – Lesson Worksheet
Recording Form C – Mixed Practice Solutions
Recording Form D – Scorecard

OBJECTIVE

To teach the children to calculate simple subtraction problems. To teach the children to identify the inverse operations grouped as fact families. To increase speed of recall of addition facts.

TEACHING

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

Do Lesson 8, pgs. 30–32 of textbook. Record solutions and work on Recording Form B.

ALERT: Reviewing math facts is important even after they have been mastered. “Math ball” is a game that can be played during this review. Use a ball (tennis balls work well) to play a regular game of catch with the exception that the person throwing the ball asks a math fact before throwing and the person catching must give the correct answer before catching the ball. This can be used to review those facts that are sometimes hard to bring to mind quickly. Many variations of this game are possible and often a welcome opportunity to stand up and stretch.

ASSIGNMENT

Mixed Practice, pgs. 32–33 of textbook

COMPLETED GRADED

Have children do the Mixed Practice on Recording Form C. Solutions for Lesson 8 are in Solutions Manual, pgs. 12–13. Record children’s score on Recording Form D – Scorecard.

Practicing the Subtraction Algorithm

BOOKS

Saxon 6/5 – Homeschool Textbook
Saxon 6/5 – Homeschool Tests and Worksheets
Saxon 6/5 – Homeschool Solutions

MATERIALS

Facts Practice Test B–100 Subtraction 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 children to solve subtraction problems using the subtraction algorithm. To increase speed of recall of subtraction facts.

TEACHING

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

Do Lesson 9, pgs. 34–37 of textbook. Record solutions and work on Recording Form B.

ALERT: For those children needing additional practice problems to master this concept, have them complete the Supplemental Practice Problems on page 638. Solutions to these problems can be found in Solutions, pg. 250.

ASSIGNMENT

Mixed Practice, pgs. 37–38 of textbook

COMPLETED GRADED

Have children do the Mixed Practice on Recording Form C. Solutions for Lesson 9 are in Solutions Manual, pgs. 13–15. Record children’s score on Recording Form D – Scorecard.

Missing Addends

BOOKS

Saxon 6/5 – Homeschool Textbook
Saxon 6/5 – Homeschool Tests and Worksheets
Saxon 6/5 – Homeschool Solutions

MATERIALS

Facts Practice Test B–100 Subtraction Facts, Tests and Worksheets, pg. 37
Recording Form A – Facts Practice
Recording Form B – Lesson Worksheet
Recording Form C – Mixed Practice Solutions
Recording Form D – Scorecard

OBJECTIVE

To teach the children to solve an equation for a missing addend. To increase speed of recall of subtraction facts.

TEACHING

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

Do Lesson 10, pgs. 39–40 of textbook. Record solutions and work on Recording Form B.

ALERT: Remind the children that when a letter is used in place of the unknown number it does not indicate the number of digits in the answer. A single letter is used regardless of the number of digits in the missing addend.

ASSIGNMENT

Mixed Practice, pgs. 41–42 of textbook

COMPLETED GRADED

Have children do the Mixed Practice on Recording Form C. Solutions for Lesson 10 are in Solutions Manual, pgs. 15–17. Record children's score on Recording Form D – Scorecard.

Test 1

BOOKS

Saxon 6/5 – Homeschool Tests and Worksheets
Saxon 6/5 – Homeschool Solutions Manual

MATERIALS

Facts Practice Test A–100 Addition Facts, Tests and Worksheets, pg. 38
Test #1, Tests and Worksheets, pg. 215
Recording Form D – Scorecard
Recording Form E – Test Solutions

OBJECTIVE

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

TEACHING

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

Have the children take Test 1 using Recording Form E to record answers and work. Correct test problems using solutions on page 293 of the Solutions Manual. Record score on Recording Form D – Scorecard.

ASSIGNMENT

None

Investigation 1 – Story Problems

BOOKS

Saxon 6/5 – Homeschool Textbook
Saxon 6/5 – Homeschool Solutions Manual
Saxon 6/5 – Homeschool Tests and Worksheets

MATERIALS

Activity Sheets 8–11, Tests and Worksheets, pgs. 39–42

OBJECTIVE

To teach the children to recognize four kinds of math stories (combining, separating, equal groups, and comparing) and write story problems for each.

TEACHING

Do Investigation 1, pgs. 43–45.

Solutions to the problems in Investigation 1 are found on page 17 of the Solutions Manual.

ASSIGNMENT

None

Story Problems about Combining

BOOKS

Saxon 6/5 – Homeschool Textbook
Saxon 6/5 – Homeschool Tests and Worksheets
Saxon 6/5 – Homeschool Solutions

MATERIALS

Facts Practice Test B–100 Subtraction Facts, Tests and Worksheets, pg. 43
Recording Form A – Facts Practice
Recording Form B – Lesson Worksheet
Recording Form C – Mixed Practice Solutions
Recording Form D – Scorecard

OBJECTIVE

To teach the children to write equations and solve for missing numbers in story problems about combining 2 quantities. To increase speed of recall of subtraction facts.

TEACHING

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

Do Lesson 11, pgs. 46–49 of textbook. Record solutions and work on Recording Form B.

ASSIGNMENT

Mixed Practice, pgs. 49–51 of textbook

COMPLETED GRADED

Have children do the Mixed Practice on Recording Form C. Solutions for Lesson 11 are in Solutions Manual, pgs. 17–19. Record children’s score on Recording Form D – Scorecard.