



Foundations of Math V

Yearlong 2022-2023



ELIGIBLE STUDENTS:

Grade 5 and advanced grade 4: This course is designed to instruct in a deeper understanding of arithmetic. It will serve to review and practice useful arithmetic concepts such as the four functions (addition, subtraction, multiplication, and division) that are necessary to master prior to Pre-Algebra. Students entering this class should have a basic understanding of these concepts as well as place value, fractions, money, and time.

Class Dates: classes begin Tuesday, September 6, 2022; classes end Friday, May 26, 2023. Class Section 1: Monday, Tuesday, Wednesday, Thursday 1:00-2:00pm (EST)

Class Section 2: Monday, Tuesday, Wednesday, Thursday 2:15-3:15pm (EST)

Instructor: Mr. Steve Maus.

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mail: smaus.scholeacademy@gmail.com

SCHEDULE FOR FOUNDATIONS OF MATH V

CLASS SESSION DATES:

Section 1: Monday through Thursday 1:00-2:00pm(EST)

2: Monday through Thursday 2:15-3:15pm(EST)

classes on the following dates

Class
Class Section
32 weeks and 127

September (15): 6, 7, 8, 12, 13, 14, 15, 19, 20, 21, 22, 26, 27, 28, 29

October (17): 3, 4, 5, 6, 10, 11, 12, 13, 17, 18, 19, 20, 24, 25, 26, 27 (End Quarter 1), 31

November (14): 1, 2, 3, 7, 8, 9, 10, 14, 15, 16, 17, (Thanksgiving Break), 28, 29, 30

December (9): 1, 5, 6, 7, 8, 12, 13, 14, 15, (Christmas Break)

January (14): (Christmas Break cont.) 9, 10, 11, 12, 16, 17, 18, 19 (End Quarter 2), 23, 24, 25, 26, 30, 31

February (12): 1, 2, 6, 7, 8, 9, 13, 14, 15, 16, (Winter Break), 27, 28

March (18): 1, 2, 6, 7, 8, 9, 13, 14, 15, 16, 20, 21, 22, 23 (End Quarter 3), 27, 28, 29, 30 April

(12): (Holy Week/Easter Break) 10, 11, 12, 13, 17, 18, 19, 20, 24, 25, 26, 27

May (16): 1, 2, 3, 4, 8, 9, 10, 11, 15, 16, 17, 18, 22, 23, 24, 25 (End Quarter 4)

OFFICE HOURS: In addition to scheduled class times, the instructor may designate an optional weekly session as needed. During “Office Hours” students may raise questions, seek assistance, or review class material.

*Please note the above dates and times are the anticipated class sessions for this course. However, all dates are subject to change as the instructor’s circumstances might dictate (e.g. illness, family emergency). Any classes canceled by the instructor will be made up at an alternate time designated by the instructor.

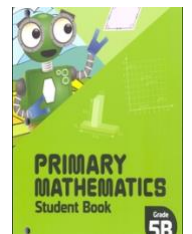
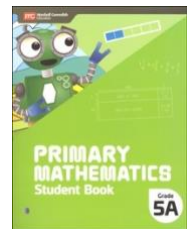
FOUNDATIONS OF MATH V COURSE MAP:

Multi-Digit Whole Numbers
The Four Operations with Whole Numbers
Relationships between fractions and decimals
Computation with fractions and decimals
Word Problems with fractions and decimals
Volume
Properties and Classification of 2-D Shapes
Line Plots and the Coordinate Plane
Number Patterns and Relationships
Understand Powers and Exponents

OFFICE HOURS: In addition to scheduled class times, teachers will generally designate an optional weekly session as needed. During “Office Hours” students may raise questions, seek assistance, or review class material.

REQUIRED COURSE MATERIALS:

- There are four Singapore Math books for the year.
 - [Primary Mathematics Student Book 5A](#) (Revised edition - 2022 Edition)
 - [Primary Mathematics Student Book 5B](#) (Revised edition - 2022 Edition)
 - [Primary Math 2022 Additional Practice 5A](#)
 - [Primary Math 2022 Additional Practice 5B](#)
- Digital tablet – [Wacom Intuos Tablets](#) (or similar)
- Three-ring Binder
- Loose-leaf Filler Graph Paper
- Sharpened Pencils and Erasers
- Ruler with Customary and Metric Markings
- Personal Size Dry-erase Board with Markers
- Additional materials and/or manipulatives may be requested prior to a particular class session



FOUNDATIONS OF MATH V DESCRIPTION:

By the end of 4th grade a student should have a good grasp of the four basic operations (addition, subtraction, multiplication and division) along with some foundational concepts in geometry and measurement. The emphasis in Math V is to take this foundation and built upon it with more complexity and then expand into those pesky fractions.

God created a world that doesn't fit into tidy whole numbers and perfect division problems with no remainders. As such, we rarely make measurements that don't require just a little more or a little less than what we prefer as simple math (think of $8\frac{1}{2} \times 11$ notebook paper). Let's embrace that complexity and slay the dragon.

Additionally, we will introduce decimal fractions and a whole host of other fun topics. My favorite aspect of the class is to learn how to take real world problems that are described with words and translate into our mathematical problem-solving language. You may have called these word problems when you did them. I like to describe this aspect of learning as a form of reading comprehension that just so happens to include numbers and number relationships.

My goal in math classes is always to help create a love of numbers and calculations; an almost addictive fascination with finding the answer to a problem that satisfies the soul and helps us to see that God is a god of order. By learning math, we get to know an aspect of God that some never see or fully appreciate.

STUDENT EXPECTATIONS: EXECUTIVE FUNCTION SKILLS

Students enrolling in Scholé Academy's Foundations of Math V will be expected to show development of Executive Function Skills throughout the year. Executive Function Skills speaks to a set of qualities and skill sets students can develop and hone to better approach the courses, lectures, readings and teachers they will face in their future academic coursework.

1. Engagement: One who is willing to step into the arena of class discussion, ask questions, supply answers, generate the internal dialogue necessary to determine if what's being discussed is important and necessary to himself.

2. Attention to Detail & Preparedness: These students are ones who consistently adhere to deadlines and submission requirements, but also are deliberate, neat and detailed in solving problems. Numbers are clearly written; all work is shown on the paper and answers are boxed in. As I review student assignments and tests, I expect that I can discern their thought process from what they put on the paper.

3. A willingness to make mistakes: Errors are common in math and they are essential to learning. We learn from our mistakes. Every assignment is not expected to be perfect and neither is every test. The primary desire should not be perfection, but

improvement. Mistakes are common, but we work hard to mitigate mistakes with thoroughness. They are mitigated by checking answers before submission and working problems backward. This is essential.

STUDENT EXPECTATIONS IN ACTION

The instructor will facilitate learning and provide many opportunities for practicing the topics of study. It is the student's responsibility to be an active learner and participant during and in between class sessions. The student should stay up to date with assignments and review material as necessary. The student should seek help and ask questions of the instructor in a timely manner.

The student is expected to:

- Arrive on time to class with required materials
- Attend the entire class on video
- Listen attentively
- Mute and unmute microphone as requested by the instructor
- Participate actively during class sessions: orally and/or visually presenting answers, sharing methods for solving problems, explaining procedures, collaborating with classmates, etc.
- Embrace mistakes as learning opportunities and rework problems correctly
- Seek approved assistance (parent, older sibling, classmate) if necessary with assignments or projects
- Complete and submit all assignments by the due date and before the start of class sessions
- No technology of any kind (including calculators) to complete assignments unless approved by the instructor

To be well-prepared to learn and participate in the lesson, the student must complete assignments prior to the start of it. If there are extenuating circumstances that prevent the student from completing an assignment, parents should contact the instructor via email prior to the class session to request an extension. Students will scan assignments and upload them to the Schoology assignment window when requested by the instructor.

PARENT EXPECTATIONS IN ACTION

Parents are to ensure that their student has all the required materials needed for this course, a stable internet connection, a distraction-free environment for class sessions, and adequate time to study and complete assignments outside of class sessions. At this level of study, students may lack confidence to complete assignments independently. As the course proceeds, there will most likely be a transition to more independent study. I prefer to have a parent help correct each assignment prior to the class. The answers will be posted online. Please maintain communication with the instructor if you have questions or concerns about the best way to support and/or assist your child.

STUDENT EVALUATION: GRADING

Students work with the instructor as they progress and develop their understanding of mathematical concepts which naturally build in complexity. Therefore, the interaction and conversation between a student and the instructor during class, on assignments and assessments, and during office hours is imperative to communicating a student's level of mastery.

It is our goal within Scholè Academy to pursue restful learning, yet the instructor does wish to provide clarity in the form of a grade on a Mastery Scale for assignments and the overall course. Based on his performance, a student will be placed in one of the following categories:

- Master - a student shows mastery of the material and/or concept
- Journeyman - a student demonstrates satisfactory understanding, but is encouraged to review the material and/or concept
- Apprentice - a student will be encouraged to re-work the assignment or assessment and may be provided with additional practice, an invitation to an office hour session, and/or a parent/instructor meeting

The overall goal is to ensure that each student performs at or above the level of Journeyman.

*Inasmuch as you might be fully on board with this grading scale in theory, there may be a need to complete a transcript with either a numeric or traditional letter grade. Traditional percentage grades will be provided upon request. Additionally, the instructor will provide a transcript of the grade at the end of the year per a parent's request.

STUDENT EVALUATION: CONTENT

Mr. Maus will communicate with students regarding assignment feedback and grading through the free online grading system, Schoology. He will provide students with more detailed information and access to the Foundations in Math V course page.

Students' grades will be comprised of:

1. Tests and Quizzes: 50% of the grade
2. Class Participation: 20% of the grade
3. Independent Practice: 30% of the grade.

STUDENT EVALUATION: ACADEMIC DISHONESTY

Students will often take assessment tests and/or quizzes privately at home. Students are on their honor to abide by [Scholé Academy's Learning Philosophy](#) which assumes the personal cultivation of Student-Virtues described in the Student-Parent Handbook.

Additionally, plagiarism and the use of Math Solver websites or apps is a serious and punishable offense. Their use on assignments will result in a failing grade.

THE VIRTUAL CLASSROOM:

We will be using the free online “virtual classroom” software provided by Zoom, one of the leading companies that provides such software. The virtual classroom will provide students with interactive audio, text chat and an interactive whiteboard in which texts, diagrams, video and other media can be displayed and analyzed. We will provide students with a link (via email) that will enable students to join the virtual classroom.

Specific information regarding the technology used by Scholé Academy (including required technology) can be found by visiting the [Technology in the Classroom](#) section of the Student Parent Handbook.

We will be using digital tablets (like Wacom Intuos tablets) to allow students to write and draw in response to class activities/problems and share these responses with their instructor and classmates. Students should have a digital tablet during class sessions in order to participate actively and fully in the lessons.

Students will submit assignments using scanning technology/apps, saving it as a single pdf file and uploading it to the Foundations of Math V Schoology assignment page (access granted after enrollment is secured).

ABOUT THE INSTRUCTOR:

Mr. Steve Maus has been a teacher in Classical Christian Schools for the last 10 years both online and in Spokane, WA. Prior to teaching, he served as a US Air Force helicopter pilot for 22 years, including twelve years in special operations (with deployments to Kuwait, Bosnia, Afghanistan and other exciting places). He has a Bachelor of Science in Astronautical Engineering from the US Air Force Academy and a Masters Degree in Information Systems Management from Webster University. His interests are in environmentally responsible, ecologically beneficial, permanent agriculture, theology, geeky math stuff, physics, music and music history. Steve and his much-loved wife, Amy, have been married for 30+ years, are the homeschooling parents of 18, grandparents of 5 and are the owners of Autumn Creek Ranch near Spokane, WA.