

# LV4 MATH OVERVIEW

## AAA MATH

At AAA, students are not simply given harder questions. We help students learn more, think deeper, and move ahead in math. Our accelerated program builds on what students already know and moves into larger numbers, multi-step problems, problem solving, and advanced math concepts beyond the standard school curriculum.

Level 4 is an accelerated Grade 4 math program that can move into Grade 5 math and beyond. At the beginning of the year, each student completes a pre-assessment. This helps us see which Grade 4 skills students already know and which skills may need a quick review before moving forward.

## HOMEWORK

- ☐ Homework will be assigned once a week. This will usually be a review of concepts covered, or test preparation.

## CYCLES

Each cycle represents a complete learning progression rather than a fixed number of weeks or lessons.

Each cycle is approximately 4–5 weeks, with two units taught at a time. However, the timeline is flexible and may change based on students' needs, progress, and understanding.

Lessons are adjusted based on each student's learning. If students need more practice with a skill, we provide additional support. If students already understand a concept, we move them into more challenging problems, deeper thinking, enrichment, and next-grade-level math.

Within each cycle, students typically move through:

**Review → Build → Practise → Apply → Extend → Master**

We do not move to the next topic simply because a certain number of lessons have passed. We regularly check student understanding and use their work to decide when they are ready for the next level of challenge. This allows students to keep progressing and learning beyond their current grade level.

## CONTACT INFO

We are here to help your child succeed! If you have questions or need extra support, feel free to reach out via email.

[jyeung@acceleratedachievers.com](mailto:jyeung@acceleratedachievers.com)

For any technical (Zoom) or scheduling issues, please email

[msangela@acceleratedachievers.com](mailto:msangela@acceleratedachievers.com)

To submit homework through email instead of Seesaw, please email

[AAAhomeworkcheck@outlook.com](mailto:AAAhomeworkcheck@outlook.com)

# UNITS OF STUDY

## Cycle 1

### Place Value

| Thousands | Hundreds | Tens | Ones | Tenths | Hundredths | Thousandths |
|-----------|----------|------|------|--------|------------|-------------|
| 7         | 1        | 5    | 9    | 3      | 6          | 2           |

### Place Value

- Read and write whole numbers within 1,000.
- Identify the ones, tens and hundreds places.
- Identify the value of a digit in the ones, tens and hundreds places.
- Represent numbers using standard, word and expanded form.
- Explain that 10 ones = 1 ten and 10 tens = 1 hundred.
- Compare numbers within 1,000 using  $>$ ,  $<$  and  $=$ .
- Order numbers within 1,000 from least to greatest and greatest to least.

## Cycle 2

### Multiplication Fluency

- Understand multiplication as equal groups.
- Multiply multi-digit numbers accurately and efficiently.
- Understand that each place to the left is 10 times the value of the place to its right.
- Apply different strategies and algorithms.
- Use estimation to check products.
- Use the terms digit, place, value, standard form, expanded form, compare, round and estimate.
- Explain why an algorithm works rather than simply following steps.
- **Extend:** apply multiplication to decimals and more complex real-world situations.

### Multiplication

- Multiply multi-digit whole numbers accurately.
- Use models, partial products and the standard algorithm.
- Choose an efficient multiplication strategy.
- Estimate products and determine whether an answer is reasonable.
- Solve one- and multi-step multiplication problems.
- **Extend:** multiply decimals and connect decimal multiplication to place value and real-world contexts.

### Division

- Understand division as the inverse of multiplication.
- Divide multi-digit whole numbers using efficient strategies.
- Estimate quotients before calculating.
- Interpret remainders appropriately depending on the context.
- Check division using multiplication.
- Identify and correct errors in division strategies.
- **Extend:** solve division problems involving larger numbers and decimals.

## Cycle 3

### Fractions

- Generate and recognize equivalent fractions.
- Compare and order fractions.
- Add and subtract fractions with related denominators.
- Represent fractions in multiple ways.
- Explain strategies using models and mathematical reasoning.
- Solve fraction problems in real-world contexts.
- **Extend:** work with more complex fraction operations and connect fractions to decimals.

### Patterns & Algebraic Thinking

- Identify rules and relationships in patterns.
- Extend numerical patterns and predict future values.
- Represent relationships using tables and equations.
- Determine missing values.
- Explain how two quantities are related.
- **Extend:** use variables or symbols to represent unknowns and generalize a pattern.

