

UNIT 1- EDM4

Content Area: **Math**
Course(s):
Time Period: **Trimester 1**
Length: **4 weeks**
Status: **Published**

Course Pacing Guide

The Everyday Mathematics program will prepare all students to apply mathematics in an ever-changing world through the use of basic skills, reasoning, problem-solving strategies and technological resources. It envisions a mathematically rich environment where students are challenged and equipped with math skills and strategies, empowering them to apply mathematics in all aspects of their lives.

Unit	Weeks
Unit 1-Place Value;Multidigit Addition and Subtraction	4 weeks
Unit 2- Multiplication and Geometry	4 weeks
Unit 3- Fractions and Decimals	4 weeks
Unit 4 -Multidigit Multiplication	4 weeks
Unit 5 -Fraction and Mixed Number Computation;Measurement	4 weeks
Unit 6-Division; Angles	4 weeks
Unit 7-Multiplication of a fraction by a Whole Number; Measurement	5 weeks
Unit 8- Fraction Operations; Applications	5 weeks

Unit Overview

Students will use their prior knowledge to expand on place value and multidigit addition/subtraction into the hundred thousands as well as rounding and estimating. Later in the unit, students will convert US customary units of length and previsit perimeter of rectangles. Students will also explore properties of geometry. The Unit 1 open response focuses on place value and number sense.

Enduring Understandings

Student's knowledge of number sense, the base-10 system, and place value will expand and deepen.

Students will be able to use basic geometry (points, lines, rays, etc) to generalize to other plane figures.

Essential Questions

How is place value important to understand when adding and subtracting?

How can we use properties to classify geometric figures?

What are the similarities and differences between estimation and rounding?

New Jersey Student Learning Standards (No CCS)

MA.4.4.G.A	Draw and identify lines and angles, and classify shapes by properties of their lines and angles.
MA.4.4.G.A.1	Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.
MA.4.4.G.A.2	Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.
MA.4.4.MD.A.3	Apply the area and perimeter formulas for rectangles in real world and mathematical problems.
MA.4.4.NBT.A.1	Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right.
MA.4.4.NBT.A.2	Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.
MA.4.4.NBT.A.3	Use place value understanding to round multi-digit whole numbers to any place.
MA.4.4.NBT.B.4	Fluently add and subtract multi-digit whole numbers using the standard algorithm.

Interdisciplinary Connections

LA.SL.4.1

Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.

Technology Standards

- TECH.8.1.5.A.1 Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems
- TECH.8.1.5.A.3 Use a graphic organizer to organize information about problem or issue.
- TECH.8.1.5.A.4 Graph data using a spreadsheet, analyze and produce a report that explains the analysis of the data.
- TECH.8.1.5.A.5 Create and use a database to answer basic questions.
- TECH.8.1.5.A.6 Export data from a database into a spreadsheet; analyze and produce a report that explains the analysis of the data.
- TECH.8.1.5.A.CS1 Understand and use technology systems
- TECH.8.1.5.A.CS2 Select and use applications effectively and productively.
- TECH.8.1.5.B Students demonstrate creative thinking, construct knowledge and develop innovative products and process using technology.
- TECH.8.1.5.B.CS1 Apply existing knowledge to generate new ideas, products, or processes.
- TECH.8.1.5.D.3 Demonstrate an understanding of the need to practice cyber safety, cyber security, and cyber ethics when using technologies and social media.
- TECH.8.1.5.D.CS1 Advocate and practice safe, legal, and responsible use of information and technology.
- TECH.8.1.5.D.CS2 Demonstrate personal responsibility for lifelong learning
- TECH.8.1.5.D.CS3 Exhibit leadership for digital citizenship.
- TECH.8.1.5.E.CS3 Evaluate and select information sources and digital tools based on the appropriateness for specific tasks.
- TECH.8.1.5.F.CS1 Identify and define authentic problems and significant questions for investigation.
- TECH.8.1.5.F.CS2 Plan and manage activities to develop a solution or complete a project.
- TECH.8.1.5.F.CS3 Collect and analyze data to identify solutions and/or make informed decisions

21st Century Themes/Careers

- CAEP.9.2.8.B.3 Evaluate communication, collaboration, and leadership skills that can be developed through school, home, work, and extracurricular activities for use in a career.
- CAEP.9.2.8.B.6 Demonstrate understanding of the necessary preparation and legal requirements to enter the workforce.

Financial Literacy Integration

- 9.1.4.B.1 Differentiate between financial wants and needs.
- 9.1.4.B.2 Identify age-appropriate financial goals.
- 9.1.4.B.3 Explain what a budget is and why it is important.
- 9.1.4.B.4 Identify common household expense categories and sources of income.
- 9.1.4.B.5 Identify ways to earn and save.

- 9.1.4.C.1 Explain why people borrow money and the relationship between credit and debt.
- 9.1.4.C.2 Identify common sources of credit (e.g., banks, credit card companies) and types of credit (e.g., loans, credit cards, mortgages).
- 9.1.4.C.3 Compare and contrast credit cards and debit cards and the advantages and disadvantages of using each.
- 9.1.4.C.4 Determine the relationships among income, expenses, and interest.
- 9.1.4.C.5 Determine personal responsibility related to borrowing and lending.
- 9.1.4.C.6 Summarize ways to avoid credit problems.
- 9.1.4.D.1 Determine various ways to save.
- 9.1.4.D.2 Explain what it means to “invest.”
- 9.1.4.D.3 Distinguish between saving and investing.
- 9.1.4.E.1 Determine factors that influence consumer decisions related to money.
- 9.1.4.E.2 Apply comparison shopping skills to purchasing decisions.
- 9.1.4.F.1 Demonstrate an understanding of individual financial obligations and community financial obligations.
- 9.1.4.F.2 Explain the roles of philanthropy, volunteer service, and charitable contributions, and analyze their impact on community development and quality of living.
- 9.1.4.G.1 Describe how valuable items might be damaged or lost and ways to protect them.

Instructional Strategies & Learning Activities

Instructional Strategies:

- interactive math notebook
- place value chart
- sentence starters (open response)
- measurement chart
- Geometry template
- straws and twisties (for demonstrating geometry)

Learning Activities:

- I have who has place value game
- place value flip book
- Ordering Cities by Population (1.4)

- Spin and Round (1.6)
- Geometry concentration Part 1 (1.11)
- Geometry concentration Part 1 (1.12)

Differentiated Instruction

- Curriculum Mapping
- Inquiry/Problem-Based Learning
- Learning preferences integration (visual, auditory, kinesthetic)
- Sentence & Discussion Stems (Open Responses/Explain your answer)
- Tiered Learning Targets
- Learning Through Play
- Relationship-Building & Team-Building
- Self-Directed Learning
- Choice Boards
- Student Data Inventories
- Mastery Learning (feedback toward goal)
- Goal-Setting & Learning Contracts
- Game-Based Learning
- Grouping
- Rubrics
- Learning Menus
- Jigsaws
- Learning Through Workstations
- Concept Attainment
- Flipped Classroom
- Mentoring
- Assessment Design & Backwards Planning
- Student Interest & Inventory Data

Formative Assessments

Mid-Unit quiz

Workshop activities

Anecdotal records/ checklists

Exit Tickets

Summative Assessment

Unit 1 EDM4 Assessment and Self-Assessment

Benchmark Assessments

Teachers may use:

~EDM4 Beginning of the Year Assessment (To create initial groupings based on EDM4 skills)

~EDM4 Mid-Year or EOY Assessment (for SGO---to show year long growth at EOY)

Alternate Assessments

~Fall Link It Form A (To create strategy groups based on specific skills and standards)

Resources & Technology

<http://everydaymath.uchicago.edu/about/>

IXL 4th grade skills

BOE Approved Texts

EDM4 McGraw-Hill Teachers Manual Volumes 1 and 2

Everyday Math Journal

Everyday Math Home Links

Everyday Math Skills Link

Closure

- Snowstorm - Students write down what they learned on a piece of scratch paper and wad it up. Given a signal, they throw their paper snowballs in the air. Then each learner picks up a nearby response and reads it aloud.
- DJ Summary - Learners write what they learned in the form of a favorite song. Offer to let one or two sing thier summary.
- Gallery Walk - On chart paper, small groups of students write and draw what they learned. After the completed works are attached to the classroom walls, others students affix post-its to the posters to extend on the ideas, add questions.
- Low-Stakes Quizzes - Give a short quiz using technologies like Kahoot or a Google form.
- Have students write down three quiz questions (to ask at the beginning of the next class).
- Question Stems - Have students write questions about the lesson on cards, using [question stems framed around Bloom's Taxonomy](#). Have students exchange cards and answer the question they have acquired.
- Kids answer the following prompts: "What takeaways from the lesson will be important to know three years from now? Why?"
- Have students dramatize a real-life application of a skill.
- Ask a question. Give students ten seconds to confer with peers before you call on a random student to answer. Repeat.
- Have kids orally describe a concept, procedure, or skill in terms so simple that a child in first grade would get it.
- Direct kids to raise their hands if they can answer your questions. Classmates agree (thumbs up) or disagree (thumbs down) with the response.
- Have kids create a cheat sheet of information that would be useful for a quiz on the day's topic.
- Kids write notes to peers describing what they learned from them during class discussions.
- Ask students to summarize the main idea in under 60 seconds to another student acting as a well-known personality who works in your discipline. After summarizing, students should identify why the famous person might find the idea significant.
- Have students complete the following sentence: "The [concept, skill, word] is like _____ because _____."
- Ask students to write what they learned, and any lingering questions on an "exit ticket". Before they leave class, have them put their exit tickets in a folder or bin labeled either "Got It," "More Practice, Please," or "I Need Some Help!"
- After writing down the learning outcome, ask students to take a card, circle one of the following options, and return the card to you before they leave: "Stop (I'm totally confused. Go (I'm ready to move on.)" or "Proceed with caution (I could use some clarification on . . .)"
- Post-It parking lot

- Alternate Responses
- Advance Notes
- Extended Time
- Teacher Modeling
- Simplified Written and Verbal Instructions
- Frequent Breaks
- E-Dictionaries
- Google Translate

Special Education

- Shorten assignments to focus on mastery of key concepts.
- Substitute alternatives for written assignments (clay models, posters, panoramas, collections, etc.)
- Specify and list exactly what the student will need to learn to pass.
- Evaluate the classroom structure against the student's needs (flexible structure, firm limits, etc.).
- Keep workspaces clear of unrelated materials.
- Keep the classroom quiet during intense learning times.
- Reduce visual distractions in the classroom (mobiles, etc.).
- Provide a computer for written work and open responses.
- Seat the student close to the teacher or a positive role model.
- Use a study carrel. (Provide extras so that the student is not singled out.)
- Provide an unobstructed view of the chalkboard, teacher, movie screen, etc.
- Keep extra supplies of classroom materials (pencils, books) on hand.
- Maintain adequate space between desks.
- Give directions in small steps and in as few words as possible.
- Number and sequence the steps in a task.
- Have student repeat the directions for a task.
- Provide visual aids.
- Go over directions orally.
- Provide a vocabulary list with definitions.
- Permit as much time as needed to finish tests.
- Allow tests to be taken in a room with few distractions (e.g., the library).
- Have test materials read to the student, and allow oral responses.
- Divide tests into small sections of similar questions or problems.
- Give progress reports instead of grades.
- Grade spelling separately from content.
- Show a model of the end product of directions (e.g., a completed math problem or finished quiz).
- Stand near the student when giving directions or presenting a lesson.
- Mark the correct answers rather than the incorrect ones.

- Permit a student to rework missed problems for a better grade.
- Average grades out when assignments are reworked, or grade on corrected work.
- Use a pass-fail or an alternative grading system when the student is assessed on his or her own growth.

504

- preferential seating
- extended time on tests and assignments
- reduced homework or classwork
- verbal, visual, or technology aids
- modified textbooks or audio-video materials
- behavior management support
- adjusted class schedules or grading
- verbal testing
- excused lateness, absence, or missed classwork
- occupational or physical therapy

At Risk

- Use of mnemonics
- Have student restate information
- Provision of notes or outlines
- Concrete examples
- Use of a study carrel
- Assistance in maintaining uncluttered space
- Weekly home-school communication tools (notebook, daily log, phone calls or email messages)
- Peer or scribe note-taking
- Lab and math sheets with highlighted instructions
- Graph paper to assist in organizing or lining up math problems
- Use of manipulatives
- No penalty for spelling errors or sloppy handwriting
- Follow a routine/schedule
- Teach time management skills
- Verbal and visual cues regarding directions and staying on task
- Adjusted assignment timelines
- Visual daily schedule
- Immediate feedback
- Work-in-progress check

- Pace long-term projects
- Preview test procedures
- Cue/model expected behavior
- Use de-escalating strategies
- Use peer supports and mentoring
- Have parent sign homework/behavior chart
- Chart progress and maintain data

Gifted and Talented

- Offer the Most Difficult First
- Pretest for Volunteers
- Offer choice
- Speak to Student Interests
- Allow G/T students to work together
- Tiered learning
- Focus on effort and practice
- Encourage risk taking