

Montana 12 Financial Mathematics / Quantitative Reasoning

FREE PREVIEW

Full-Year Teacher Planner, Blank Editable Planner & School-Submission Binder

This preview shows the real structure and a genuine sample of the completed planner. The full product contains 9 units, 36 weekly plans and 180 daily plans, plus blank editable versions of every form.

State	Montana
Grade	12 (High)
Subject	Financial Mathematics / Quantitative Reasoning
Course category	Mathematics
Standards family	Mathematics
Framework	Montana PK-12 Mathematics Content Standards (adopted 2025, implemented 2026)
Issuing agency	Montana Office of Public Instruction
Scope	36 instructional weeks · 180 instructional days · 9 units

This is a statewide standards index, not a local course catalog. Course names, grade placement, electives, and graduation sequences vary by district.

What you get

Folder	Contents
01 START HERE	Read-me, contents, printing and digital instructions, standards verification guide, this preview
02 FILLED FULL YEAR	Completed planner in colour and ink-friendly PDF, plus editable DOCX
03 BLANK EDITABLE	Blank planner in colour, ink-friendly and fillable PDF, plus editable DOCX
04 ASSESSMENTS AND DATA	Baseline observation, quarterly rubrics, anecdotal forms, portfolio checklist
05 SCHOOL SUBMISSION	Submission covers, alignment summary, evidence checklist, observation, reflection, signature page
06 LICENSE AND CREDITS	Terms of use, credits and licences, copyright notice

The pages that follow are reproduced **exactly** as they appear in the full completed planner.

Week 9 — How a Credit Card Balance Behaves

Unit 3: Debt, Housing and Getting Around · Month 3 · Quarter 1 · Semester 1 · Instructional Days 41–45

Essential question	Why does a small payment take so long to clear a balance?
Standards	How Credit Card Debt Grows and Shrinks -> MT.CORE.ALG.EXP.5 Core Algebraic and Functional Reasoning Standards / Exponential Functions and Expressions (EXP) — Solve exponential equations graphically, while using technology strategically. MT.CORE.ALG.EXP.3 Core Algebraic and Functional Reasoning Standards / Exponential Functions and Expressions (EXP) — Understand the relationship between growth/decay factor and growth/decay rate.
Learning target	"I can model how a revolving balance grows and shrinks."
Local dates	_____ (enter your school dates)

Measurable objectives

- Students will investigate growth and reduction of credit card debt using spreadsheets, including variables such as beginning balance, payment structures, credits, interest rates, new purchases, finance charges, and fees.

Success criteria (student-friendly)

- "I build a month-by-month balance schedule."
- "I show the effect of changing the payment."
- "I explain the result without judging anybody."

Academic vocabulary

revolving balance, minimum payment, finance charge, fee, credit, amortisation, principal, interest portion

Materials and technology

- Supplied scenario cards
- Squared paper or school-provided spreadsheet
- Notebooks

Differentiation and supports

Support area	This week's plan
Special education / IEP	Reduce group size; pair visual cue cards with all verbal directions; allow gesture or picture response in place of speech; pre-teach the week's target in a 1:1 warm-up.
Section 504	Provide the child's documented accommodations throughout; permit movement breaks and alternative seating at any point in the sequence.
Multilingual learners	Introduce each vocabulary word with an object or image; accept home-language responses; send the vocabulary list home where a translation is available; pair with a peer who shares the home language.
Advanced / extension	Ask the learner to teach the skill to a peer, extend the task, or record a demonstration for the class reference wall.

Support area	This week's plan
Intervention / reteach	Reteach the target in a short small group using the same materials; split the day's check for understanding into two smaller steps.
Enrichment	Extend into an open-ended centre or project connected to the essential question.

Assessment and evidence

A balance schedule with payment scenarios compared.

Family communication

Ask your child what happens to a balance when only the minimum is paid.

Day 41 — The Seven Variables the Standard Names

Week 9, Day 1 · Unit 3 · Standards: MT.CORE.ALG.EXP.5, MT.CORE.ALG.EXP.3

Focus	MT.CORE.ALG.EXP.5, MT.CORE.ALG.EXP.3, read closely.
Learning target	"I can model how a revolving balance grows and shrinks."
Vocabulary in use	revolving balance, minimum payment, finance charge, fee, credit, amortisation, principal, interest portion
Local date	_____

Learning sequence

TEACHER NOTE, AND THE MOST IMPORTANT ONE IN THE UNIT. SOME STUDENTS IN THE ROOM LIVE IN HOUSEHOLDS CARRYING EXACTLY THIS DEBT. This week is taught as a SYSTEM WITH INCENTIVES AND ARITHMETIC, never as a judgement about the people in it; the plan states plainly that a person's finances are not a measure of their character or their competence, and that debt is usually a consequence of circumstance rather than of arithmetic error. NO STUDENT IS ASKED WHETHER THEIR HOUSEHOLD HAS A CARD, A BALANCE OR A DIFFICULTY, and every figure is on a supplied card. Connect: this week's standard. Teach: the seven variables it lists - beginning balance, payment structures, credits, interest rates, new purchases, finance charges, fees - and that a model missing any of them will understate the cost. Try: shared reading. Apply: students identify all seven in a supplied card. Reflect: which two would you have forgotten?

Check for understanding

Student identifies all seven variables in a scenario.

Differentiation in the moment

If the learner...	Then...
needs more support	Model the step again with guided support, then fade to a gesture cue.
is ready for more	Invite the learner to demonstrate for a peer or add a second example.
is dysregulated	Pause instruction, move to co-regulation, and return to the target later.

Closure and reflection

Gather the group. Restate the learning target. Ask one learner to demonstrate. Name one specific thing the group did well, then preview tomorrow.

Teacher reflection (fictional example)

Fictional Example — Customize and Verify Before School Submission.

Most learners met the target. Two needed the visual cue repeated during guided practice; I will pre-teach with them tomorrow. The extension held attention longer than planned, so I shortened closure.

Day 42 — Building the Month-by-Month Schedule

Week 9, Day 2 · Unit 3 · Standards: MT.CORE.ALG.EXP.5, MT.CORE.ALG.EXP.3

Focus	The mechanism.
Learning target	"I can model how a revolving balance grows and shrinks."
Vocabulary in use	revolving balance, minimum payment, finance charge, fee, credit, amortisation, principal, interest portion
Local date	_____

Learning sequence

Connect: the variables. Teach: the monthly loop - opening balance, plus purchases, plus finance charge, plus fees, minus credits, minus payment, equals closing balance, which becomes next month's opening - and that getting the ORDER right matters because interest is charged before or after the payment depending on the terms. Teach that this loop is the whole model. Try: shared build of three months. Apply: students build twelve. Reflect: what did the balance do?

Check for understanding

Student builds a correct month-by-month revolving balance schedule.

Differentiation in the moment

If the learner...	Then...
needs more support	Model the step again with guided support, then fade to a gesture cue.
is ready for more	Invite the learner to demonstrate for a peer or add a second example.
is dysregulated	Pause instruction, move to co-regulation, and return to the target later.

Closure and reflection

Gather the group. Restate the learning target. Ask one learner to demonstrate. Name one specific thing the group did well, then preview tomorrow.

Teacher reflection (fictional example)

Fictional Example — Customize and Verify Before School Submission.

Most learners met the target. Two needed the visual cue repeated during guided practice; I will pre-teach with them tomorrow. The extension held attention longer than planned, so I shortened closure.

Day 43 — Why the Minimum Payment Is Slow

Week 9, Day 3 · Unit 3 · Standards: MT.CORE.ALG.EXP.5, MT.CORE.ALG.EXP.3

Focus	The central result.
Learning target	"I can model how a revolving balance grows and shrinks."
Vocabulary in use	revolving balance, minimum payment, finance charge, fee, credit, amortisation, principal, interest portion
Local date	_____

Learning sequence

Connect: a twelve-month schedule. Teach: that when the payment is close to the finance charge, almost none of it reaches the principal, so the balance barely moves - and that this is arithmetic rather than a trick, though the arithmetic is not obvious from the statement. Teach the striking comparison: a modest increase in payment often cuts the term disproportionately. Try: shared computation of the interest portion in month one. Apply: students compute the interest portion across their schedule. Reflect: what fraction of the payment was principal?

Check for understanding

Student computes the principal portion of a payment and explains it.

Differentiation in the moment

If the learner...	Then...
needs more support	Model the step again with guided support, then fade to a gesture cue.
is ready for more	Invite the learner to demonstrate for a peer or add a second example.
is dysregulated	Pause instruction, move to co-regulation, and return to the target later.

Closure and reflection

Gather the group. Restate the learning target. Ask one learner to demonstrate. Name one specific thing the group did well, then preview tomorrow.

Teacher reflection (fictional example)

Fictional Example — Customize and Verify Before School Submission.

Most learners met the target. Two needed the visual cue repeated during guided practice; I will pre-teach with them tomorrow. The extension held attention longer than planned, so I shortened closure.

Day 44 — Changing One Thing at a Time

Week 9, Day 4 · Unit 3 · Standards: MT.CORE.ALG.EXP.5, MT.CORE.ALG.EXP.3

Focus	Sensitivity, again.
Learning target	"I can model how a revolving balance grows and shrinks."
Vocabulary in use	revolving balance, minimum payment, finance charge, fee, credit, amortisation, principal, interest portion
Local date	_____

Learning sequence

Connect: Week 3's sensitivity. Teach: that the useful output here is not one schedule but a COMPARISON of scenarios - a higher payment, no new purchases, a lower rate - each varied alone. Teach which usually dominates and why that is worth knowing. Try: shared variation of one input. Apply: students run three scenarios and tabulate the term and total cost of each. Reflect: which single change helped most?

Check for understanding

Student compares scenarios varying one input at a time.

Differentiation in the moment

If the learner...	Then...
needs more support	Model the step again with guided support, then fade to a gesture cue.
is ready for more	Invite the learner to demonstrate for a peer or add a second example.
is dysregulated	Pause instruction, move to co-regulation, and return to the target later.

Closure and reflection

Gather the group. Restate the learning target. Ask one learner to demonstrate. Name one specific thing the group did well, then preview tomorrow.

Teacher reflection (fictional example)

Fictional Example — Customize and Verify Before School Submission.

Most learners met the target. Two needed the visual cue repeated during guided practice; I will pre-teach with them tomorrow. The extension held attention longer than planned, so I shortened closure.

Day 45 — Reporting It Without Moralising

Week 9, Day 5 · Unit 3 · Standards: MT.CORE.ALG.EXP.5, MT.CORE.ALG.EXP.3

Focus	How this is written up.
Learning target	"I can model how a revolving balance grows and shrinks."
Vocabulary in use	revolving balance, minimum payment, finance charge, fee, credit, amortisation, principal, interest portion
Local date	_____

Learning sequence

TEACHER NOTE. THE REPORT DESCRIBES THE ARITHMETIC. IT DOES NOT ADVISE, JUDGE OR SPECULATE ABOUT WHY A HOUSEHOLD IS IN THIS POSITION. Connect: scenarios run. Teach: that the honest report says what the model shows under stated assumptions and stops - and that the temptation to add a moral is strong here and should be resisted, because the model contains no information about the household's circumstances, options or constraints. Teach the professional form: figures, assumptions, comparison, limits. Try: shared drafting. Apply: students write the report. Reflect: what did you delete?

Check for understanding

Student reports a debt model without advice or judgement.

Differentiation in the moment

If the learner...	Then...
needs more support	Model the step again with guided support, then fade to a gesture cue.
is ready for more	Invite the learner to demonstrate for a peer or add a second example.
is dysregulated	Pause instruction, move to co-regulation, and return to the target later.

Closure and reflection

Gather the group. Restate the learning target. Ask one learner to demonstrate. Name one specific thing the group did well, then preview tomorrow.

Teacher reflection (fictional example)

Fictional Example — Customize and Verify Before School Submission.

Most learners met the target. Two needed the visual cue repeated during guided practice; I will pre-teach with them tomorrow. The extension held attention longer than planned, so I shortened closure.

Important before you buy

- This is a **digital download**. Nothing is shipped.
- The planner is **calendar-neutral**: Month 1–9, Week 1–36, Day 1–180, so it fits any school calendar. You add your own dates.
- Standards were transcribed from the official source.
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Source citation

Montana Office of Public Instruction. Montana PK-12 Mathematics Content Standards (adopted 2025, implemented 2026). Codes and statements are transcribed from the MONTANA PK-12 MATHEMATICS CONTENT STANDARDS, whose own cover reads "MONTANA OFFICE OF PUBLIC INSTRUCTION (OPI) ADOPTED 2025 IMPLEMENTED 2026". THIS IS A RECENT CHANGE OF EDITION AND IT MATTERS: OPI's mathematics standards page records the previous 2011 Montana mathematics standards as effective UNTIL JUNE 2026 and this edition as effective FROM JULY 2026, so this is the framework in force for the 2026-27 school year and the 2011 codes are superseded. Codes take the form MT.GRADE.DOMAIN.NUMBER -- the document explains its own scheme, with kindergarten indicated by "K", grades 1-8 by their number and high school by "HS" -- and domains are abbreviated, among them CC counting and cardinality, OA operations and algebraic thinking, NBT number and operations in base ten, MD measurement and data and G geometry. MANY STANDARDS CARRY MONTANA INDIAN EDUCATION FOR ALL CONTENT INSIDE THE STANDARD ITSELF, in the recurring form "This standard should incorporate cultural context relating to Montana Indigenous Peoples and local communities". That sentence is part of the standard as printed and is transcribed with it; trimming it to the national Common Core wording would misrepresent what Montana adopted. THIS STATE PUBLISHES NO FINANCIAL MATHEMATICS COURSE AND NO QUANTITATIVE REASONING COURSE -- it publishes no high school mathematics courses at all -- so this year is your district's arrangement of standards it does publish. IT IS REGISTERED AS WHAT IT ACTUALLY IS, A MODELLING COURSE: this state files modelling under its own domain, MT.CORE.ALG.MOD, and the finance, three-dimensional design and statistical strands each land on the standards they genuinely use rather than on a nominal financial-literacy heading, which the mathematics standards do not have. FINANCIAL LITERACY IN THIS STATE SITS IN TWO PLACES and neither is a mathematics course: an appendix to the mathematics standards showing where financial contexts fall across K-12, and the career and

technical education rule ARM 10.53.1009(1)(c). If you want the CTE requirement rather than the mathematics, the Financial Literacy planner in this series is the one built around it. THE PRACTICE STANDARDS ARE THIS STATE'S OWN SEVEN, and MP.7 Culturally Connect is registered on the financial modelling week because seventeen of the eighty-one content standards carry a cultural-context requirement inside the standard itself. Retrieved 2026-07-27 from https://opifiles.mt.gov/Portals/182/Page%20Files/K-12%20Content%20Standards%20%26%20Revision/Math/PK-12%20Montana%20Math%20Standards_PUBLIC.pdf