

Montana 8 Mathematics

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	8 (Middle)
Subject	Mathematics
Course category	Core
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 — Drawing a Proportional Relationship

Unit 3: Lines, and the Equation That Describes Them · Month 3 · Quarter 1 · Semester 1 · Instructional Days 41–45

Essential question	What does the steepness tell you?
Standards	Graphing Proportional Relationships -> MT.8.EE.5 Expressions and Equations (EE) — Graph proportional relationships, interpret the unit rate as the slope of the graph, and compare two different proportional relationships as tables, graphs, and equations.
Learning target	"I can graph a proportional relationship and read its rate from the graph."
Local dates	_____ (enter your school dates)

Measurable objectives

- Students will graph proportional relationships.

Success criteria (student-friendly)

- "I choose and label a sensible scale."
- "I plot accurately."
- "I read the unit rate from the graph."

Academic vocabulary

axis, scale, plot, unit rate, steepness, origin

Materials and technology

- Graph paper
- Rulers
- Notebooks
- Chart paper

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.
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.

Support area	This week's plan
Enrichment	Extend into an open-ended centre or project connected to the essential question.

Assessment and evidence

A proportional relationship graphed and its rate read off.

Family communication

Ask your child what the steepness of their graph meant.

Day 41 — Choosing the Scale Before Plotting

Week 9, Day 1 • Unit 3 • Standards: MT.8.EE.5

Focus	The step that decides everything.
Learning target	"I can graph a proportional relationship and read its rate from the graph."
Vocabulary in use	axis, scale, plot, unit rate, steepness, origin
Local date	_____

Learning sequence

Connect: Week 8's tests. Teach: choosing axis scales from the data's range so the graph fills the space, and labelling both axes with quantity and unit - Week 7's precision applied. Try: shared scaling. Apply: pupils scale two axes for supplied data. Reflect: a badly scaled graph is unreadable however accurate the points.

Check for understanding

Student chooses and labels an appropriate scale.

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 — Plotting and Joining

Week 9, Day 2 · Unit 3 · Standards: MT.8.EE.5

Focus	Accuracy.
Learning target	"I can graph a proportional relationship and read its rate from the graph."
Vocabulary in use	axis, scale, plot, unit rate, steepness, origin
Local date	_____

Learning sequence

Connect: scaling. Teach: plotting accurately, and when joining points is meaningful - continuous quantities yes, counts of objects no. Try: shared plotting. Apply: pupils plot two relationships. Reflect: joining points that cannot exist between is a claim you did not mean to make.

Check for understanding

Student plots accurately and judges whether to join points.

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 — Reading the Rate From the Line

Week 9, Day 3 · Unit 3 · Standards: MT.8.EE.5

Focus	Interpretation.
Learning target	"I can graph a proportional relationship and read its rate from the graph."
Vocabulary in use	axis, scale, plot, unit rate, steepness, origin
Local date	_____

Learning sequence

Connect: plotting. Teach: reading the unit rate as the y -value at $x = 1$, and as the rise over any run - two routes to the same number. Try: shared reading. Apply: pupils read rates from three graphs. Reflect: the point at $x = 1$ is the fastest read, and it is why proportional graphs are useful.

Check for understanding

Student reads a unit rate from a graph.

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 — Steeper Means What

Week 9, Day 4 • Unit 3 • Standards: MT.8.EE.5

Focus	Meaning.
Learning target	"I can graph a proportional relationship and read its rate from the graph."
Vocabulary in use	axis, scale, plot, unit rate, steepness, origin
Local date	_____

Learning sequence

Connect: reading. Teach: comparing two proportional graphs by steepness and saying what the difference means IN THE SITUATION rather than in the maths. Try: shared comparison. Apply: pupils compare and interpret two. Reflect: steepness is a fact about the world, not the paper.

Check for understanding

Student interprets comparative steepness in context.

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 — Week 9 Check: Graphing Proportional Relationships

Week 9, Day 5 · Unit 3 · Standards: MT.8.EE.5

Focus	MT.8.EE.5 assessed.
Learning target	"I can graph a proportional relationship and read its rate from the graph."
Vocabulary in use	axis, scale, plot, unit rate, steepness, origin
Local date	_____

Learning sequence

Connect: the week. Teach: the criteria - scaled, labelled, accurate, interpreted. Try: shared checking. Apply: pupils graph unseen data and interpret. Reflect: recorded against this week's standard.

Check for understanding

Student graphs and interprets an unseen proportional relationship.

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

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Pages use a minimum 8-point type size, high-contrast text, wide writing areas, print-safe margins, numbered pages and a bookmarked navigation outline. Colour and ink-friendly versions are supplied, and no information is conveyed by colour alone.

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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 ENTRY IS THE GRADE 8 ROW of the Montana PK-12 Mathematics Content Standards, and it registers ALL TWENTY-EIGHT GRADE 8 CONTENT STANDARDS plus the state's SEVEN MATHEMATICAL PRACTICE STANDARDS. GRADE 8 IS THE FIRST YEAR WITH A FUNCTIONS DOMAIN -- there is no F domain at grade 6 or grade 7 -- and its geometry domain is the largest in the middle grades at nine standards, running from rigid motions and congruence through similarity to the Pythagorean theorem and the volume formulas. THE PRACTICE STANDARDS ARE MONTANA'S OWN SEVEN AND ARE NOT THE NATIONAL EIGHT: Problem Solve and Persevere, Abstract and Generalize, Justify and Prove, Model with Mathematics, Represent, COLLABORATE MATHEMATICALLY and CULTURALLY CONNECT. The last two have no

national counterpart, and the pairings used here are THE SAME ONES ALREADY REGISTERED ON THE GRADE 6 AND GRADE 7 ROWS so that a buyer who owns more than one grade does not find one practice standard treated two different ways. SEVERAL CONTENT STANDARDS CARRY THE SENTENCE "This standard should incorporate cultural context relating to Montana Indigenous Peoples and local communities" IN THE STATE'S OWN TEXT, and those statements are registered exactly as the document prints them. 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