
Montana 8 Science

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	Science
Course category	Core
Standards family	Science
Framework	Montana Science Content Standards (2016), codified at ARM 10.53 subchapter 8
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 — Position Predicts Behaviour

Unit 3: Predicting, and Recognising a Reaction · Month 3 · Quarter 1 · Semester 1 · Instructional Days 41–45

Essential question	Can you say how an element will behave before you have seen it?
Standards	Predicting Reactivity From the Periodic Table -> ARM 10.53.809(1)(b) Montana Science Content Standards / Physical Science — analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred
Learning target	"I can use position in the table to reason about reactivity."
Local dates	_____ (enter your school dates)

Measurable objectives

- Students will obtain and evaluate information from the periodic table about the reactivity of main group elements.

Success criteria (student-friendly)

- "I identify the main groups."
- "I describe the reactivity trend in a group."
- "I evaluate the source of my information."

Academic vocabulary

reactivity, main group, trend, prediction, evaluate

Materials and technology

- The school's periodic table
- Teacher-supplied reactivity data
- 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.
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 reactivity trend described and its evidence evaluated.

Family communication

Ask your child which elements are the most reactive and why.

Day 41 — Which Groups the Standard Means

Week 9, Day 1 • Unit 3 • Standards: ARM 10.53.809(1)(b)

Focus	ARM 10.53.809(1)(b) begun.
Learning target	"I can use position in the table to reason about reactivity."
Vocabulary in use	reactivity, main group, trend, prediction, evaluate
Local date	_____

Learning sequence

TEACHER NOTE: NO REACTIVE METAL OR HALOGEN IS HANDLED BY PUPILS. Any demonstration is the teacher's, and where none is possible the week uses supplied data and video the school already holds - the standard asks for prediction from the table, not for the reaction. Connect: Week 7's groups. Teach: what 'main group' means and where those groups sit. Try: shared location. Apply: pupils identify the main groups. Reflect: the standard is about position, and position is available to everyone.

Check for understanding

Student identifies the main groups on the table.

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 — Reading a Trend Down a Group

Week 9, Day 2 · Unit 3 · Standards: ARM 10.53.809(1)(b)

Focus	Pattern.
Learning target	"I can use position in the table to reason about reactivity."
Vocabulary in use	reactivity, main group, trend, prediction, evaluate
Local date	_____

Learning sequence

Connect: groups. Teach: reading supplied reactivity data down a group and describing the trend - and that a trend is a pattern with exceptions, not a law. Try: shared reading. Apply: pupils describe one trend from data. Reflect: describing the trend is a data skill before it is a chemistry one.

Check for understanding

Student describes a reactivity trend from supplied data.

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 — Across a Period

Week 9, Day 3 · Unit 3 · Standards: ARM 10.53.809(1)(b)

Focus	The second dimension.
Learning target	"I can use position in the table to reason about reactivity."
Vocabulary in use	reactivity, main group, trend, prediction, evaluate
Local date	_____

Learning sequence

Connect: down a group. Teach: that reactivity also changes across a period and in a different way, so position needs both coordinates. Try: shared comparison. Apply: pupils describe one across-period pattern. Reflect: one coordinate is not enough to predict.

Check for understanding

Student describes a pattern across a period.

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 — Where Did This Information Come From

Week 9, Day 4 · Unit 3 · Standards: ARM 10.53.809(1)(b)

Focus	The 'evaluate' verb.
Learning target	"I can use position in the table to reason about reactivity."
Vocabulary in use	reactivity, main group, trend, prediction, evaluate
Local date	_____

Learning sequence

Connect: patterns. Try: shared evaluation of two supplied sources. Apply: pupils evaluate one. Reflect: 'evaluate' is in the standard and is the part usually dropped.

Check for understanding

Student evaluates a source of scientific information.

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: Trends and Sources

Week 9, Day 5 • Unit 3 • Standards: ARM 10.53.809(1)(b)

Focus	ARM 10.53.809(1)(b) begun.
Learning target	"I can use position in the table to reason about reactivity."
Vocabulary in use	reactivity, main group, trend, prediction, evaluate
Local date	_____

Learning sequence

Connect: the week. Teach: the criteria. Try: shared checking. Apply: pupils describe a trend and evaluate its source. Reflect: next week they make and test PREDICTIONS.

Check for understanding

Student describes a trend and evaluates its source.

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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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 Science Content Standards (2016), codified at ARM 10.53 subchapter 8. Statements are transcribed from the MONTANA SCIENCE CONTENT STANDARDS, whose own cover reads "Adopted September 16, 2016 by the Montana Board of Public Education". THAT DOCUMENT PRINTS NO CODES. Each grade is a set of discipline headings -- physical science, life science, earth and space science -- followed by unnumbered bullets, so there is nothing in it that can be printed in a code column. The same standards are codified in the ADMINISTRATIVE RULES OF MONTANA, CHAPTER 10.53 SUBCHAPTER 8, one rule per grade, and the rule's structure is exactly the document's: a numbered subsection per discipline heading, a lettered item per bullet, same order and same count. THE ARM SUBSECTION IS REGISTERED AS THE CODE. This is an existing official citation rather than an invented identifier, and it is the citation a Montana reviewer can actually look up; the alternative would have been to ship science products with no codes at all. Bullets are separated in the PDF by a Symbol-font character in the Unicode Private Use Area rather than by a literal dot; splitting on the indent instead merges a whole discipline into one run, and splitting per line fragments every standard mid-sentence, so the glyph is what the transcription splits on and the item count is checked against the counts the document's headings imply. SIXTH THROUGH EIGHTH IS ONE BAND IN THIS STATE'S SCIENCE STANDARDS, NOT THREE GRADES. Montana publishes a single rule, ARM 10.53.809, for grades 6, 7 and 8, holding FIFTY-TWO standards in three disciplines: EIGHTEEN PHYSICAL SCIENCE, nineteen life science and fifteen earth and space science. THIS YEAR IS THE PHYSICAL SCIENCE COURSE and it registers SEVENTEEN OF THE EIGHTEEN. TOGETHER WITH THE GRADE 6 AND GRADE 7 PRODUCTS IN THIS SERIES -- earth and space, then life science -- THE THREE YEARS COVER THE BAND BETWEEN THEM rather than repeating it. If your district teaches the band in a different order, CHECK YOUR OWN SEQUENCE BEFORE BUYING. ONE STANDARD IS DELIBERATELY NOT CLAIMED: (1)(c), gathering information to describe that synthetic materials come from natural resources and impact society. This year has no materials-and-society week. ONE STANDARD IS DELIBERATELY SHARED WITH THE GRADE 6 PRODUCT: (1)(j),

on gravitational interactions being attractive, is registered on both, because the earth and space year genuinely teaches it in its sun-Earth-moon unit and this year genuinely teaches it among the non-contact forces. That is the standard being taught twice at different depths, not a row claiming someone else's coverage. ONE WEEK IS REGISTERED AGAINST NO STANDARD AND THAT IS DELIBERATE: the week on digital and analog signals has no counterpart in this rule -- Montana's physical science standards stop at how waves are reflected, absorbed or transmitted -- and it is taught because it is worth teaching, not to fill a row in the alignment table. Retrieved 2026-07-27 from <https://opifiles.mt.gov/Portals/182/Page%20Files/K-12%20Content%20Standards%20%26%20Revision/Science/Montana-Science-Content-Standards-2016.pdf>