
Montana 1 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	1 (Elementary)
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 — Light Through Materials

Unit 3: Light and Materials · Month 3 · Quarter 1 · Semester 1 · Instructional Days 41–45

Essential question	What happens when light meets different materials?
Standards	Light Through Different Materials -> ARM 10.53.804(1)(c) Montana Science Content Standards / Physical Science — plan and conduct an investigation to determine the effect of placing objects made with different materials in the path of a beam of light
Learning target	"I can sort materials by what they do to light."
Local dates	_____ (enter your school dates)

Measurable objectives

- Students will plan and carry out investigations to determine how light is affected when it interacts with various types of materials.
- Students will classify materials by how they affect light.

Success criteria (student-friendly)

- "I shine light at the material."
- "I observe what happens."
- "I sort it into a group."

Academic vocabulary

transparent, translucent, opaque, material, through

Materials and technology

- Torches
- Clear plastic
- Tissue paper
- Card
- Sorting trays

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.

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

Assessment and evidence

Product: child classifies materials by their effect on light.

Family communication

Test which things at home let light through.

Day 41 — Light Straight Through

Week 9, Day 1 · Unit 3 · Standards: ARM 10.53.804(1)(c)

Focus	Transparent materials.
Learning target	"I can sort materials by what they do to light."
Vocabulary in use	transparent, translucent, opaque
Local date	_____

Learning sequence

Wonder: which let light through? Investigate: clear materials. Observe: light passes, object visible. Explain: transparent. Record: group formed.

Check for understanding

Student identifies a transparent material.

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 — Light Partly Through

Week 9, Day 2 · Unit 3 · Standards: ARM 10.53.804(1)(c)

Focus	Translucent materials.
Learning target	"I can sort materials by what they do to light."
Vocabulary in use	transparent, translucent, opaque
Local date	_____

Learning sequence

Wonder: what about tissue? Investigate: translucent materials. Observe: light passes, image blurred. Explain: translucent. Record: group formed.

Check for understanding

Student identifies a translucent material.

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 — No Light Through

Week 9, Day 3 · Unit 3 · Standards: ARM 10.53.804(1)(c)

Focus	Opaque materials.
Learning target	"I can sort materials by what they do to light."
Vocabulary in use	transparent, translucent, opaque
Local date	_____

Learning sequence

Wonder: what blocks it? Investigate: card and wood. Observe: no light passes. Explain: opaque. Record: group formed.

Check for understanding

Student identifies an opaque material.

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 — Planning Our Own Test

Week 9, Day 4 · Unit 3 · Standards: ARM 10.53.804(1)(c)

Focus	Planning an investigation.
Learning target	"I can sort materials by what they do to light."
Vocabulary in use	transparent, translucent, opaque
Local date	_____

Learning sequence

Wonder: how should we test? Investigate: planning method. Observe: agreeing a fair procedure. Explain: consistency. Record: plan written.

Check for understanding

Student contributes to a plan for testing materials.

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 — Sorting Everything We Have

Week 9, Day 5 · Unit 3 · Standards: ARM 10.53.804(1)(c)

Focus	Applying classification.
Learning target	"I can sort materials by what they do to light."
Vocabulary in use	transparent, translucent, opaque
Local date	_____

Learning sequence

Wonder: where does each belong? Investigate: testing many materials. Observe: results. Explain: three groups. Record: sorted display.

Check for understanding

Student classifies several materials correctly.

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.
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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. THIS ENTRY IS THE GRADE 1 SECTION of the Montana Science Content Standards and it registers ALL NINE GRADE 1 STANDARDS: four physical science, three life science and two earth and space science. THE CODE FORM ON THIS ROW IS DIFFERENT FROM THE OTHER SUBJECTS AND THE REASON MATTERS. The OPI science standards document PRINTS NO CODES AT ALL -- each grade is a discipline heading followed by unnumbered bullets -- so there is nothing in it to put in a code column. The same standards are codified in the ADMINISTRATIVE RULES OF MONTANA, chapter 10.53 subchapter 8, where GRADE 1 SCIENCE IS RULE 10.53.804 and the rule's structure is exactly the document's: a numbered subsection per discipline heading and a lettered item per bullet, in the same order and with the same count in each. THE ARM SUBSECTION IS THEREFORE THE OFFICIAL IDENTIFIER FOR EACH BULLET and is what is registered here. No code was invented; an existing citation was used because

the standards document does not carry one, and a reviewer can look up 10.53.804 and find these nine items in this order. THE RULE NUMBER WAS CONFIRMED AGAINST THE REGISTER RATHER THAN COUNTED ON FROM KINDERGARTEN: rules.mt.gov returns 10.53.804 titled "SCIENCE CONTENT STANDARDS FOR FIRST GRADE", and the rule's own shape -- four, three and two items across its three subsections -- was read off the rule and asserted against the document before any code was written. THAT ASSERTION IS NOT CEREMONIAL: kindergarten's shape is four, one and five, so a grade that reused the previous grade's grouping would have filed real statements under real-looking codes belonging to the wrong standards. The bullets are separated in the PDF by a Symbol-font private-use character rather than a literal dot, and splitting on anything else silently merges or fragments the standards, so the glyph is what the transcription splits on. 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>