
Montana 4 Technology / Computer 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	4 (Elementary)
Subject	Technology / Computer Science
Course category	Technology
Standards family	Science
Framework	Montana Content Standards for Computer Science (2021)
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 — Writing Steps a Computer Could Follow

Unit 3: From Plan to Program · Month 3 · Quarter 1 · Semester 1 · Instructional Days 41–45

Essential question	How do I write instructions precisely without a programming language?
Standards	Writing Simple Pseudocode -> CS.AP.4.2 Montana Computer Science K-12 / algorithms and programming — break down problems into smaller, manageable subproblems to facilitate the program development process
Learning target	"I can write simple pseudocode for a task."
Local dates	_____ (enter your school dates)

Measurable objectives

- Students will define a simple pseudocode.
- Students will write pseudocode for a task.

Success criteria (student-friendly)

- "I explain what pseudocode is."
- "I write precise numbered steps."
- "Someone else can follow it."

Academic vocabulary

pseudocode, precise, instruction, repeat, if

Materials and technology

- Paper and pencils
- Chart paper
- Notebooks
- Command word bank
- No devices needed

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

Pseudocode written and successfully followed by a partner.

Family communication

Ask your child to write instructions for making a sandwich.

Day 41 — What Pseudocode Is

Week 9, Day 1 · Unit 3 · Standards: CS.AP.4.2

Focus	Definition.
Learning target	"I can write simple pseudocode for a task."
Vocabulary in use	pseudocode, precise, instruction
Local date	_____

Learning sequence

Connect: flowcharts. Teach: pseudocode writes the steps in plain words, precisely, without worrying about a particular language. Try: shared discussion. Apply: pupils define it in their own words. Reflect: DEFINE is the standard's verb, so the definition is assessed.

Check for understanding

Student explains what pseudocode is.

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 — Being Precise

Week 9, Day 2 · Unit 3 · Standards: CS.AP.4.2

Focus	Precision.
Learning target	"I can write simple pseudocode for a task."
Vocabulary in use	pseudocode, precise, instruction
Local date	_____

Learning sequence

Connect: pseudocode. Teach: 'put the jam on' is not precise; 'pick up the knife, put it in the jam, spread jam on the bread' is. Try: shared writing, teacher following it literally. Apply: pupils write precise steps. Reflect: THE TEACHER FOLLOWING IT LITERALLY is the whole lesson, and it is funny, which helps.

Check for understanding

Student rewrites a vague instruction precisely.

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 — Words for Repeating

Week 9, Day 3 · Unit 3 · Standards: CS.AP.4.2

Focus	Repetition in pseudocode.
Learning target	"I can write simple pseudocode for a task."
Vocabulary in use	pseudocode, precise, instruction
Local date	_____

Learning sequence

Connect: precision. Teach: REPEAT 4 TIMES saves writing the same line four times. Try: shared writing. Apply: pupils use repetition. Reflect: prepares repetition in Week 11's programming.

Check for understanding

Student uses a repeat instruction in pseudocode.

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 — Words for Choosing

Week 9, Day 4 · Unit 3 · Standards: CS.AP.4.2

Focus	Conditionals in pseudocode.
Learning target	"I can write simple pseudocode for a task."
Vocabulary in use	pseudocode, precise, instruction
Local date	_____

Learning sequence

Connect: repetition. Teach: IF something IS true THEN do this, ELSE do that. Try: shared writing. Apply: pupils use a conditional. Reflect: the flowchart diamond in words; the two representations are linked.

Check for understanding

Student uses an if-then instruction in pseudocode.

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 — Swapping and Following

Week 9, Day 5 · Unit 3 · Standards: CS.AP.4.2

Focus	Testing.
Learning target	"I can write simple pseudocode for a task."
Vocabulary in use	pseudocode, precise, instruction
Local date	_____

Learning sequence

Connect: our pseudocode. Teach: the test is whether a partner can follow it exactly. Try: shared swapping. Apply: pupils follow each other's. Reflect: honest testing, done kindly.

Check for understanding

Student's pseudocode is successfully followed by a partner.

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 Content Standards for Computer Science (2021). Codes and statements are transcribed from the MONTANA CONTENT STANDARDS FOR COMPUTER SCIENCE FOR K-12, which records on every page "Document Created April 5, 2021 | Standards Effective date July 1, 2021". It was produced on the same day, in the same template and with the same coding scheme as the social studies standards: SUBJECT.STANDARD.GradeLevel SUBSTANDARD.sub-substandard, with CS computer science and the content areas AP algorithms and programming, CS computing systems, DA data and analysis, IC impacts of computing and NI networks and the internet. THE SAME SINGLE-STANDARD RULE APPLIES: an area with one standard at a grade states it on the area line and its code ends at the grade, with no final number. NOT EVERY CONTENT AREA APPEARS AT EVERY GRADE -- networks and the internet has no standards in the earliest grades -- and no standard is invented to fill the gap. A TYPOGRAPHICAL ERROR IN THE SOURCE IS RECORDED RATHER THAN CORRECTED IN SILENCE: the kindergarten data and analysis stem reads "standards TO kindergarten" where every other stem reads "for". It affects a stem line rather than a standard, so no registered statement is changed by it. THIS ENTRY IS THE GRADE 4 ROW of the 2021 Montana Content Standards for Computer Science, and it registers ALL ELEVEN GRADE 4 STANDARDS: three algorithms and programming, two computing systems, three data and analysis and three impacts of computing. THE DOMAIN LIST IS NOT STABLE ACROSS THIS BAND AND IS READ PER GRADE. Grade 2 publishes five domains including networks and the internet; grades 3 and 4 publish four, with no networks standards at all. The totals move too -- fifteen at grade 2, twelve at grade 3, eleven here -- so a row built by carrying a neighbouring grade's domain list forward would claim standards this grade does not have. THE CODE FORM IS THE DOCUMENT'S OWN, CS.... THE PLANNER IS TOOL-NEUTRAL AND THE STANDARDS ARE TOO: no product, platform, brand or vendor is named in either, so a school can teach the year on whatever it already licenses. Montana publishes computer science as a K-12 strand in its own right rather than folding it into science or library media, which is why this row cites computer science codes and not science ones.

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