Alabama 12 Computer Science / Advanced Technology

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	Alabama
Grade	12 (High)
Subject	Computer Science / Advanced Technology
Course category	Technology
Standards family	Science
Framework	2018 Alabama Course of Study: Digital Literacy and Computer Science
Issuing agency	Alabama State Department of Education
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 — Designing an Artefact

Unit 3: Building Something · Month 3 · Quarter 1 · Semester 1 · Instructional Days 41–45

Essential question	What are you actually building, and who for?
Standards	**DI 5 → Standard 5 Computational Thinker / Programming and Development** — Design and iteratively develop computational artifacts for practical intent, personal expression, or to address a societal issue by using current events.
Learning target	"I can design and iteratively develop an artefact with a stated purpose."
Local dates	_____ (enter your school dates)

Measurable objectives

- Students will design and iteratively develop computational artifacts for practical intent, personal expression, or to address a societal issue by using current events.

Success criteria (student-friendly)

- "I state the artefact's purpose and audience."
- "I design before building."
- "I develop iteratively rather than in one pass."

Academic vocabulary

computational artifact, purpose, audience, iteration, increment, specification, scope

Materials and technology

- Paper
- Machines if available
- Unplugged design route

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

An artefact designed with a stated purpose and a first increment built.

Family communication

Ask your child what they are building and who it is for.

Day 41 — The Three Purposes the Standard Names

Week 9, Day 1 · Unit 3 · Standards: Standard 5

Focus	Choosing.
Learning target	“I can design and iteratively develop an artefact with a stated purpose.”
Vocabulary in use	computational artifact, purpose, audience, iteration, increment, specification, scope
Local date	_____

Learning sequence

TEACHER NOTE: the standard names PRACTICAL INTENT, PERSONAL EXPRESSION, or ADDRESSING A SOCIETAL ISSUE USING CURRENT EVENTS. All three are equal routes and students choose. WHERE A STUDENT CHOOSES THE SOCIETAL ROUTE, the topic is theirs and NO STUDENT IS REQUIRED TO WORK ON ANYTHING PERSONAL, DISTRESSING OR POLITICAL; a practical or expressive artefact meets the standard identically, and that alternative is announced to the whole class. Connect: algorithms. Teach: the three purposes and what each implies. Try: shared discussion. Apply: students choose a purpose. Reflect: the purpose decides everything downstream.

Check for understanding

Student chooses and states an artefact's purpose.

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 — Who Is It For

Week 9, Day 2 · Unit 3 · Standards: Standard 5

Focus	Audience.
Learning target	“I can design and iteratively develop an artefact with a stated purpose.”
Vocabulary in use	computational artifact, purpose, audience, iteration, increment, specification, scope
Local date	_____

Learning sequence

Connect: purpose. Teach: naming the user, and that 'anyone' produces something for nobody - which is the same lesson every design subject teaches. Try: shared naming. Apply: students name their user and what that user needs. Reflect: one named user beats an imagined crowd.

Check for understanding

Student names a user and their needs.

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 — Designing Before Building

Week 9, Day 3 · Unit 3 · Standards: Standard 5

Focus	The standard's first verb.
Learning target	“I can design and iteratively develop an artefact with a stated purpose.”
Vocabulary in use	computational artifact, purpose, audience, iteration, increment, specification, scope
Local date	_____

Learning sequence

Connect: audience. Teach: designing on paper first - what it does, its parts from Unit 1's decomposition, the algorithms from Unit 2, and what it will NOT do - and that scoping out is the decision that makes a project finishable. Try: shared design. Apply: students design their artefact on paper. UNPLUGGED ROUTE: the design is a full deliverable in its own right. Reflect: what you cut is what lets you finish.

Check for understanding

Student produces a paper design for an artefact.

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 — The Smallest Thing That Works

Week 9, Day 4 · Unit 3 · Standards: Standard 5

Focus	Iteration.
Learning target	“I can design and iteratively develop an artefact with a stated purpose.”
Vocabulary in use	computational artifact, purpose, audience, iteration, increment, specification, scope
Local date	_____

Learning sequence

Connect: design. Teach: ITERATIVELY DEVELOP as the standard words it - build the smallest version that does something real, get it working, then extend - rather than building all the parts and joining them at the end. Try: shared identification of a minimal first version. Apply: students define and begin their first increment. Reflect: something small that runs beats something large that does not.

Check for understanding

Student defines and begins a minimal first increment.

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 — Building the First Increment

Week 9, Day 5 · Unit 3 · Standards: Standard 5

Focus	Execution.
Learning target	“I can design and iteratively develop an artefact with a stated purpose.”
Vocabulary in use	computational artifact, purpose, audience, iteration, increment, specification, scope
Local date	_____

Learning sequence

Connect: the increment. Teach: building it, with the paper design beside the work. Try: shared session. Apply: students complete a working first increment. WHERE THERE ARE NO MACHINES, the increment is a fully specified traced design. Reflect: you have something that works, in week nine.

Check for understanding

Student completes a working first increment.

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

Alabama State Department of Education. 2018 Alabama Course of Study: Digital Literacy and Computer Science. Adopted 2018. Content standards are numbered from 1 within each grade and organised under five strands; six Recurring Standards are numbered separately and are to be incorporated at each grade. NOTE: the State Board adopted a 2025 revision of this course of study in December 2025, but at the time of writing the ALSDE academic standards page still publishes the 2018 document as the operative one, and the 2025 material released so far is an overview containing no numbered standards. Verify which course of study your district is teaching before submitting this plan. THIS ENTRY IS THE GRADES 9-12 BAND, PDF pages 55-58, plus the six Recurring Standards from the overview page 54. Unlike Kindergarten through Grade 8, the document publishes NO GRADE-SPECIFIC HIGH SCHOOL SET: one set headed "Grades 9 - 12" serves Grades 9, 10, 11 and 12, so the Grade 9, 10, 11 and 12 technology rows in this series all align to it. It comprises 40 content standards with 19 lettered sub-parts across five strands -- Computational Thinker, Citizen of a Digital Culture, Global Collaborator, Computing Analyst and Innovative Designer -- and the 6 Recurring Standards. The recurring standards are PROGRESSIVE ACROSS THE BANDS rather than identical: four are word-for-word the same as at every grade from Kindergarten to Grade 8, while R3 is a different standard at this band and R5 adds evaluation. Printed "Examples:" runs are illustrative rather than standards and are not registered. Standard 9a is printed without terminal punctuation in the source and is transcribed as printed. THIS GRADE 12 ENTRY IS THE SAME BAND SET AS THE GRADE 9, GRADE 10 AND GRADE 11 ENTRIES IN THIS SERIES, AND IT IS THE FOURTH AND LAST ROW ON IT: the document publishes ONE set headed "Grades 9 - 12", so a Grade 12 computer science class is held to exactly the same 65 items as a Grade 9 one. Verified at registration time rather than assumed -- the band heading was located by regex on PDF pages 4, 16 and 53-55, and the only bare "Grade 12" mentions in the entire 77-page document are on page 6 (the graduation-requirements table, which is about credits rather than standards) and pages 66-67 (Appendices D and E, which

quote ENGLISH LANGUAGE ARTS anchor standards for correlation and publish no computer science standard of their own). THERE IS NO GRADE 12 SET TO ALIGN TO. THE WORKBOOK LABELS THIS ROW "COMPUTER SCIENCE / ADVANCED TECHNOLOGY", AND THE WORD "ADVANCED" NEEDS THE SAME PRECISION THE GRADE 11 ROW GAVE "CYBERSECURITY": this course of study publishes NO ADVANCED COURSE, NO ADVANCED LEVEL AND NO ADVANCED STRAND, and there is no second-year or honours variant of the band. The word was checked by regex across every page at registration time and appears thirteen times, none of them a course designation, AND NOT ONCE ANYWHERE IN THE GRADES 9-12 CONTENT PAGES 55-58. Six are "Advanced Placement" in the graduation-requirements table on page 6, listing AP as one credit-eligible option among several for other subjects entirely. TWO ARE INSIDE CONTENT STANDARDS, AND THEY BELONG TO GRADE 5 RATHER THAN TO THIS BAND -- Grade 5 standard 16 on using advanced features of digital tools to communicate and Grade 5 standard 19 on conducting advanced keyword searches, both printed on PDF page 38, and NEITHER IS PART OF THIS ENTRY. The remaining five are narrative: the continuum text on page 13 describing "more advanced digital literacy skills", a passage on the Grades 9-12 overview page 53 about a technologically advanced global society, the CSTA framework code 18-AP-13 in Appendix B (where AP is Algorithms and Programming, NOT Advanced Placement), and two English Language Arts correlations in Appendix E. So the honest position is that THE WORD DESCRIBES A GRADE 5 SEARCH SKILL AND A GENERAL SOCIETAL OBSERVATION, AND DESCRIBES NOTHING A GRADE 12 CLASS IS HELD TO. AN ALABAMA CTE TECHNOLOGY PATHWAY COURSE IS A DIFFERENT THING ENTIRELY, sitting under Career and Technical Education with its own standards, and NONE OF THOSE ARE REGISTERED HERE. The listing says so before purchase, and says plainly that a buyer who owns any of the other three already owns this one. Retrieved 2026-07-27 from https://www.alabamaachieves.org/wp-content/uploads/2023/11/AS-2018-Digital-Literacy-and-Computer-Science-COS.pdf