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# Oklahoma 11 Computer Science / Cybersecurity

**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            | Oklahoma                                                  |
| Grade            | 11 (High)                                                 |
| Subject          | Computer Science / Cybersecurity                          |
| Course category  | Technology                                                |
| Standards family | Science                                                   |
| Framework        | Oklahoma Academic Standards for Computer Science (2023)   |
| Issuing agency   | Oklahoma 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          | <b>Programming and Development (1) -&gt; L2.AP.A.03 Algorithms &amp; Programming</b> — Critically examine and trace classic algorithms (e.g., selection sort, insertion sort, binary search, linear search). Developing and Using Abstractions |
| 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: L2.AP.A.03

|                   |                                                                                       |
|-------------------|---------------------------------------------------------------------------------------|
| 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

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: L2.AP.A.03

|                   |                                                                                       |
|-------------------|---------------------------------------------------------------------------------------|
| 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: L2.AP.A.03

|                   |                                                                                       |
|-------------------|---------------------------------------------------------------------------------------|
| 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: L2.AP.A.03

|                   |                                                                                       |
|-------------------|---------------------------------------------------------------------------------------|
| 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: L2.AP.A.03

|                   |                                                                                       |
|-------------------|---------------------------------------------------------------------------------------|
| 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

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- 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

Oklahoma State Department of Education. Oklahoma Academic Standards for Computer Science (2023). Codes are scope.strand.subconcept.number across Computing Systems (CS), Networks & The Internet (NI), Data Analysis (DA), Algorithms & Programming (AP) and Impacts of Computing (IC). Oklahoma writes K-8 by grade and splits high school into Level 1 (L1) and Level 2 (L2) rather than by grade. Oklahoma does not author its own education technology standards - it adopts the ISTE standards - so technology rows cite computer science, which Oklahoma does write. Scope: high school L2. Retrieved 2026-07-27 from <https://oklahoma.gov/education/services/standards-learning/computer-science.html>