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# Pennsylvania 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            | Pennsylvania                                              |
| Grade            | 4 (Elementary)                                            |
| Subject          | Technology / Computer Science                             |
| Course category  | Technology                                                |
| Standards family | Science                                                   |
| Framework        | Science (STEELS)                                          |
| Issuing agency   | Pennsylvania 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 — 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          | <b>Writing Simple Pseudocode -&gt; 3.5.3-5.F Technology and Engineering</b> — Classify resources used to create technologies as either renewable or nonrenewable |
| 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: 3.5.3-5.F

|                   |                                             |
|-------------------|---------------------------------------------|
| 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: 3.5.3-5.F

|                   |                                             |
|-------------------|---------------------------------------------|
| 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: 3.5.3-5.F

|                   |                                             |
|-------------------|---------------------------------------------|
| 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: 3.5.3-5.F

|                   |                                             |
|-------------------|---------------------------------------------|
| 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: 3.5.3-5.F

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

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- This is a **digital download**. Nothing is shipped.
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## Source citation

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