

# North Carolina 7 Mathematics

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            | North Carolina                                            |
| Grade            | 7 (Middle)                                                |
| Subject          | Mathematics                                               |
| Course category  | Core                                                      |
| Standards family | Mathematics                                               |
| Framework        | North Carolina Standard Course of Study, Mathematics      |
| Issuing agency   | North Carolina Department 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 — Adding, Factoring and Expanding Expressions

### Unit 3: Expressions and Variables · Month 3 · Quarter 1 · Semester 1 · Instructional Days 41–45

|                    |                                                                                                                                                                                                                                                         |
|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Essential question | How do you tidy an expression without changing what it means?                                                                                                                                                                                           |
| Standards          | <b>Adding, Factoring and Expanding Expressions</b> -> <b>NC.7.EE.1 EE</b> — Apply properties of operations as strategies to: * Add, subtract, and expand linear expressions with rational coefficients. * Factor linear expression with an integer GCF. |
| Learning target    | "I can add, factor and expand linear expressions and check they still mean the same."                                                                                                                                                                   |
| Local dates        | _____ (enter your school dates)                                                                                                                                                                                                                         |

#### Measurable objectives

- Students will apply properties of operations to add, subtract, factor and expand linear expressions with rational coefficients.
- Students will check equivalence after each manipulation.

#### Success criteria (student-friendly)

- "I collect only like terms."
- "I factor out a common factor."
- "I check by substituting."

#### Academic vocabulary

linear expression, term, coefficient, like terms, factor, expand, equivalent

#### Materials and technology

- Algebra tiles or paper equivalents
- Notebooks
- Whiteboards
- Expression cards
- Squared paper

#### 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

Expressions added, factored and expanded, with equivalence checked.

### Family communication

Ask your child how they checked two expressions were the same.

## Day 41 — What a Term Actually Is

Week 9, Day 1 • Unit 3 • Standards: NC.7.EE.1

|                   |                                                                                       |
|-------------------|---------------------------------------------------------------------------------------|
| Focus             | The foundation.                                                                       |
| Learning target   | "I can add, factor and expand linear expressions and check they still mean the same." |
| Vocabulary in use | linear expression, term, coefficient, like terms, factor, expand, equivalent          |
| Local date        | _____                                                                                 |

### Learning sequence

Connect: Grade 6's expressions. Teach: terms, coefficients and why only like terms combine - with tiles so unlike terms are physically different objects. Try: shared sorting. Apply: pupils collect terms in four expressions. Reflect: collecting unlike terms is the error, and it comes from treating a letter as a label rather than a number.

### Check for understanding

Student collects like terms correctly and explains why others cannot combine.

### 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 — Coefficients That Are Not Whole

Week 9, Day 2 · Unit 3 · Standards: NC.7.EE.1

|                   |                                                                                       |
|-------------------|---------------------------------------------------------------------------------------|
| Focus             | The Grade 7 addition.                                                                 |
| Learning target   | "I can add, factor and expand linear expressions and check they still mean the same." |
| Vocabulary in use | linear expression, term, coefficient, like terms, factor, expand, equivalent          |
| Local date        | _____                                                                                 |

### Learning sequence

Connect: like terms. Teach: the arithmetic of Weeks 5 and 6 now lives inside algebra - negative and fractional coefficients throughout. Try: shared practice. Apply: pupils add and subtract four such expressions. Reflect: this is the actual Grade 7 step up from Grade 6.

### Check for understanding

Student adds expressions with rational coefficients.

### 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 — Expanding

Week 9, Day 3 · Unit 3 · Standards: NC.7.EE.1

|                   |                                                                                       |
|-------------------|---------------------------------------------------------------------------------------|
| Focus             | Distribution.                                                                         |
| Learning target   | "I can add, factor and expand linear expressions and check they still mean the same." |
| Vocabulary in use | linear expression, term, coefficient, like terms, factor, expand, equivalent          |
| Local date        | _____                                                                                 |

### Learning sequence

Connect: coefficients. Teach: expanding a bracket including a negative multiplier, where the sign of every term inside changes - the commonest single error in the topic. Try: shared expansion. Apply: pupils expand six including negatives. Reflect: writing the multiplier against each term prevents it.

### Check for understanding

Student expands a bracket with a negative multiplier 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.

## Day 44 — Factoring Is Expanding Backwards

Week 9, Day 4 · Unit 3 · Standards: NC.7.EE.1

|                   |                                                                                       |
|-------------------|---------------------------------------------------------------------------------------|
| Focus             | Factoring.                                                                            |
| Learning target   | "I can add, factor and expand linear expressions and check they still mean the same." |
| Vocabulary in use | linear expression, term, coefficient, like terms, factor, expand, equivalent          |
| Local date        | _____                                                                                 |

### Learning sequence

Connect: expanding. Teach: factoring as reversing the distribution, checked by expanding again - which makes it self-verifying. Try: shared practice. Apply: pupils factor four and check.

### Check for understanding

Student factors an expression and verifies by expanding.

### 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 — Expressions, Manipulated and Checked

### Week 9, Day 5 • Unit 3 • Standards: NC.7.EE.1

|                   |                                                                                       |
|-------------------|---------------------------------------------------------------------------------------|
| Focus             | NC.7.EE.1 assessed.                                                                   |
| Learning target   | "I can add, factor and expand linear expressions and check they still mean the same." |
| Vocabulary in use | linear expression, term, coefficient, like terms, factor, expand, equivalent          |
| Local date        | _____                                                                                 |

### Learning sequence

Connect: the week. Teach: a mixed set, with equivalence checked by substituting a value. Try: shared setup. Apply: pupils complete. Reflect: this week's standard recorded.

### Check for understanding

Student manipulates expressions and verifies equivalence.

### 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

North Carolina Department of Public Instruction. North Carolina Standard Course of Study, Mathematics. North Carolina does not offer Algebra I, Geometry or Algebra II. It teaches an integrated pathway - NC Math 1, 2, 3 and a fourth-level course - and this planner cites the NC Math course that corresponds to the catalog course name. Retrieved 2026-07-27 from <https://www.dpi.nc.gov/districts-schools/classroom-resources/office-teaching-and-learning/standard-course-study/mathematics>