INSTRUCTIONAL GUIDANCE: ADDITION & SUBTRACTION

Review and Practice

Daily review should be brief: about 5–10 minutes. Use active participation strategies so all students respond, every time.

Arithmetic review should focus on a **small set of already-taught facts** that students can solve accurately but not yet fluently. Students should not practise unfamiliar facts for speed. If students are fast but inaccurate, pause the fluency routine and return to explicit modelling, guided practice, immediate feedback, and a smaller fact set.

Teachers should use professional judgement when deciding when a fact set has been mastered and is ready to be practised less often. Some fact sets may need one or two days of focused review; others may require several days.

Core review routines for arithmetic facts

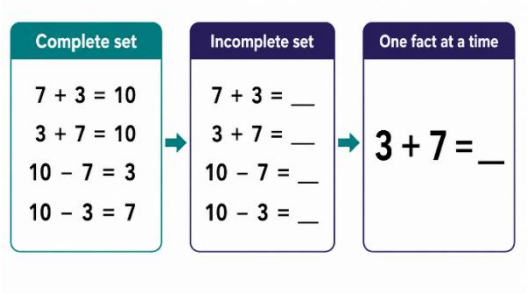
Use these routines after students have been explicitly taught the relevant strategy or fact set. The goal is to move from accurate strategy use towards fluent and increasingly automatic recall.

Check the Addition and Subtraction: Resources for a slide bank that can be used to support these review and practice routines.

Related Fact Set Review

Purpose

Students practise reading, completing, remembering, and recalling a small set of related addition and subtraction facts.



Use for

Whole-class daily review of a small, already-taught fact set, such as +1 facts, doubles, make-ten facts, or a fact family.

Materials

Displayed number facts, mini-whiteboards or response cards if needed.

Teacher note

Use full number sentences during choral response so students rehearse the relationship, not just the answer. For example, students say, “Three add seven equals ten,” rather than only saying “ten.”

Step	Teacher move	Student response
1. Show a small set of related facts	Display a small collection of related number facts, such as: 7 + 3 = 10; 3 + 7 = 10; 10 − 7 = 3; 10 − 3 = 7.	Students look and prepare to read.
2. Read the facts together	“Read these with me.”	“Seven add three equals ten. Three add seven equals ten. Ten subtract seven equals three. Ten subtract three equals seven.”
3. Read and complete incomplete facts	Remove the answers: 7 + 3 = __; 3 + 7 = __; 10 − 7 = __; 10 − 3 = __. “Read and complete these with me.”	Students read each full number sentence with the missing answer included.
4. Remember and recite the facts	Remove the display or cover the answers. “Now say them from memory.”	Students recite the full facts from memory.
5. Practise the facts out of order	Display one fact at a time. Provide wait time using a clear response signal, such as an outstretched hand. “Get ready. Wait for my signal.”	Students respond chorally with the full number sentence, such as “Three add seven equals ten.”
6. Intersperse previously mastered facts	Repeat step 5, mixing today’s focus facts with facts practised in previous sets.	Students respond to a mix of current and previously mastered facts.

Correction routine

If many students are inaccurate, stop the fast review. Return to the representation or strategy: “Let’s show the parts and whole again.” “What fact do we know that helps?” “Now say the full number sentence with me.”

Explicit Timing: Personal Best

Purpose

Students build fluency with a small set of facts they can already solve accurately.

Use for

Facts that have been explicitly taught and practised to accuracy, but are not yet fluent.

Materials

Short practice sheet, mini-whiteboard set, or digital fact display using only the taught fact set.

Teacher note

Explicit timing should be personal-best focused, not competitive. Keep goals private. Use 30–60 seconds. If students are inaccurate, stop timing and return to modelling, feedback, and a smaller fact set.

Brief example routine: +1 facts within 10

- Give students a short practice sheet containing only taught +1 facts, such as 3 + 1, 7 + 1, 5 + 1, and 9 + 1.
- Say: “You will have 30 seconds. Work carefully and accurately. Try to beat your own last score.”
- Students complete as many facts as they can in 30 seconds.
- Say: “Stop. Put your pencil down. Check your answers.”
- Students count the number correct and record it privately.
- Review one or two missed facts: “When we add 1, we say the next number. 7 + 1 = 8.”
- Later in the week, students repeat the same or a slightly expanded fact set and try to improve their own score.

Correction routine

If students are answering quickly but making errors, say: “We are not ready to practise this set for speed yet. Let’s go back to solving carefully and accurately.”

Audio-Paced Practice

Purpose

Students practise retrieving known facts efficiently, with immediate checking and correction.

Use for

Small, already-taught fact sets that students can solve accurately but need to retrieve more efficiently.

Materials

Teacher voice, recording, slideshow, or audio file.

Teacher note

The pace should be brisk but not stressful. Students should have enough time to respond before the answer is given. Use only facts students have already been taught.

Example routine: audio-paced +1 facts

Teacher/audio prompt	Student response
“3 add 1…” pause	Students say or write “4.”
“4.”	Students check and correct if needed.
“7 add 1…” pause	Students say or write “8.”
“8.”	Students check and correct if needed.
“5 add 1…” pause	Students say or write “6.”
“6.”	Students check and correct if needed.

Correction routine

If students cannot respond before the answer is given, slow the pace, reduce the fact set, or return to explicit modelling of the strategy.

Goal Setting

Purpose

Students build motivation and attention during fluency practice by working towards a clear, achievable personal goal.

Use for

Students who are practising a small set of facts they can already solve accurately.

Teacher note

Goals should be private and personal-best focused, not competitive. The aim is to increase correct responses over time while maintaining accuracy.

Example

A student records, “Yesterday I answered 12 facts correctly. Today my goal is 14.”

Correction routine

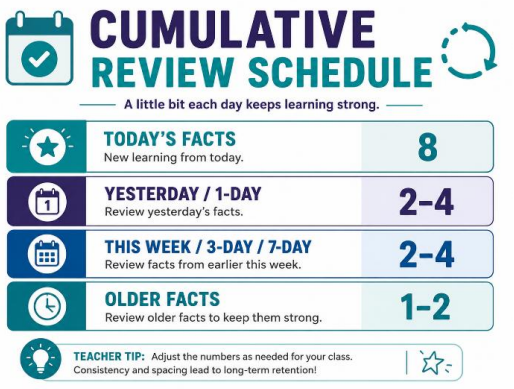
If a student increases speed but loses accuracy, reset the goal around accuracy: “Today your goal is to answer carefully and get all of the practised facts correct.”

Cumulative Review

As facts are mastered, they should continue to be reviewed with reduced frequency. Cumulative review helps students retain facts over time while allowing the teacher to focus most practice on the current fact set.

For example, in a set of 20 review facts, the teacher might include:

Review type	Number of facts
Today's facts	8 facts, such as 4 facts repeated twice
1-day review	2 facts
3-day review	2 facts
7-day review	2 facts
14-day review	2 facts
30-day review	2 facts
60-day review	1 fact
120-day review	1 fact



A simpler classroom version is:

Review type	Number of facts
Today's facts	8 facts, such as 4 facts repeated twice
Yesterday's facts	4 facts
This week's facts	4 facts
This month's facts	2 facts
Older facts	2 facts

Teacher note

Cumulative review should remain accurate and efficient. If older facts are no longer accurate, return them briefly to explicit modelling or supported practice before including them again in fluency review.

Moving review forward

When students are accurate and fluent with a small fact set, reduce the frequency of practice for that set and introduce a new related fact set. Continue to include previously mastered facts in cumulative review so students maintain accuracy, fluency, and retrieval over time.