Education & Learning / Learning Acceleration

Generate bite-sized prerequisite lessons just before they’re needed — proactive support for learning acceleration.
Difficulty: Advanced
Model: GPT-4 / Claude / Gemini
Use Case: Prerequisite Support, Scaffolding
Updated: June 2026
Why This Prompt Exists
Students get stuck because they miss one prerequisite skill. Teaching it weeks before it’s needed means they forget it. Teaching it after they fail means they’re already behind.

You get:

- prerequisites taught too early (students forget before using them)
- prerequisites taught too late (students already failed)
- no proactive gap-filling (reactive, not preventive)
- scaffolding that’s too much or too little
- students stuck without immediate support

But just-in-time scaffolding has structure:

- just before: teach prerequisite immediately before it’s needed
- bite-sized: 5-10 minutes, not full lessons
- targeted: only the missing skill, not the whole unit
- active: practice immediately after instruction
- fading: reduce support as competence increases

Without just-in-time scaffolding, gaps persist.
This prompt generates bite-sized prerequisite lessons just before they’re needed.

The Prompt

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Assume the role of a scaffolding specialist who provides just-in-time prerequisite support.

Your task is to generate bite-sized lessons that fill gaps immediately before they're needed.

Generate:

1. UPCOMING CONTEXT
   - Target lesson/topic: [what students are about to learn]
   - Prerequisite skill needed: [the missing skill]
   - Time available for scaffolding: [X minutes]
   - Student prior knowledge: [what they already know]

2. SCAFFOLDING LESSON STRUCTURE (5-10 minutes)

| Phase | Duration | Activity | Purpose |
|-------|----------|----------|---------|
| Direct instruction | 2-3 min | [teach the prerequisite] | Learn the skill |
| Guided practice | 2-3 min | [practice with support] | Apply with help |
| Independent practice | 1-2 min | [practice alone] | Verify mastery |
| Connection | 1 min | [link to target lesson] | Bridge to new content |

3. SCAFFOLDING LESSON CONTENT
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Direct Instruction (2-3 minutes)
- Key point: [one thing they need to know]
- How to teach it: [explanation or demonstration]
- Example: [concrete example]

Guided Practice (2-3 minutes)
- Practice problem: [problem to solve together]
- Support level: [high / medium / low]
- Check for understanding: [how to know they get it]

Independent Practice (1-2 minutes)
- Quick check: [1-2 problems alone]
- Success criterion: [what counts as mastery]

Connection (1 minute)
- Bridge statement: "Now that you know [prerequisite], you're ready to [target skill] because [connection]."

4. SCAFFOLDING FADING (reducing support over time)

Attempt	Support Level	Teacher Role	Student Role
Scaffolding 1	High	Demonstrate, explain	Watch, listen
Scaffolding 2	Medium	Prompt, hint	Attempt with help
Scaffolding 3	Low	Observe, verify	Attempt alone

5. COMMON SCAFFOLDING MISTAKES

| Mistake | Why It Fails | Correct Approach |

|---------|--------------|------------------|
Scaffolding too early	Students forget	Just before it's needed
Scaffolding too long	Loses focus	5-10 minutes maximum
Scaffolding without practice	Passive learning	Include guided practice
No connection to target	Students don't see why	Explicit bridge
Same support for all	Some need more, some less	Differentiate by response

INPUTS:

Target lesson/topic (what's coming next):
[PASTE TOPIC]

Prerequisite skill needed:
[PASTE SKILL]

Time available for scaffolding:
[E.G., "10 minutes", "5 minutes"]

Student prior knowledge:
[E.G., "Can add fractions with like denominators"]

Group size:
[WHOLE CLASS / SMALL GROUP / INDIVIDUAL]

RULES:
- Teach prerequisite immediately before it's needed (not weeks earlier)

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- Keep scaffolding to 5-10 minutes (bite-sized, not full lesson)
- Teach only the missing skill (not the whole prerequisite unit)
- Include practice immediately after instruction (active, not passive)
- Fade support as competence increases (less help over time)
- Explicitly bridge to target lesson (connect prerequisite to new content)
- Check for understanding before moving on (verify mastery)
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How To Use It

- Teach prerequisite immediately before it's needed — not weeks earlier; students forget.
- Keep scaffolding to 5-10 minutes — bite-sized, not a full lesson.
- Teach only the missing skill — not the whole prerequisite unit.
- Include practice immediately after instruction — active learning, not passive listening.
- Fade support as competence increases — less help over time.
- Explicitly bridge to the target lesson — connect the prerequisite to new content.
- Check for understanding before moving on — verify mastery in the moment.

Example Input

Target lesson/topic: "Adding fractions with unlike denominators"

Prerequisite skill needed: "Finding equivalent fractions"

Time available for scaffolding: "8 minutes"

Student prior knowledge: "Can identify numerator and denominator, understands basic multiplication"

Group size: "WHOLE CLASS"

Why It Works

Prerequisites taught too early are forgotten. Prerequisites taught too late come after failure. Just-in-time scaffolding fills gaps immediately before they're needed.

This framework improves outcomes by forcing:

- scaffolding lesson structure (direct instruction, guided practice, independent practice, connection)
- time-bound delivery (5-10 minutes, not full lessons)
- targeted content (only the missing skill, not the whole unit)
- scaffolding fading (reducing support as competence increases)
- explicit bridging (connecting prerequisite to target lesson)

Failure modes this prevents:

- prerequisites taught too early (students forget before using them)
- prerequisites taught too late (students already failed)
- no proactive gap-filling (reactive, not preventive)
- scaffolding that's too much or too little

This improves on: Remediation after failure. Just-in-time scaffolding prevents gaps before they cause failure.

Related to: LA-01 (Diagnostic Prescriptive) for gap identification; LA-03 (Mastery Checkpoints) for verification.

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