How to Study Chemistry & Biology

A simple plan that works. 15 minutes a day. Every step is backed by research (sources at the end).

The 4 rules

1 Study a little every day.
15 minutes a day beats 2 hours the night before. Spreading out the same study time makes you remember more.[1,2]

2 Test yourself. Don't just reread.
Close your notes and try to remember. Pulling it out of your memory is what makes it stick.[1,3,4,5]

3 Make your cheat sheet from memory.
Write it with your notes closed, then check it. Just copying a cheat sheet doesn't teach you much.[6,7]

4 Sleep is part of studying.
Review for 10 minutes before bed on paper (no phone), then sleep 8+ hours. Don't wake up early to study if it costs you sleep.[8,9,10,11,12]

Your 15-minute daily routine

Time	What to do
Minutes 1–5	**Blank page.** With your notes closed, write or draw everything you remember from yesterday. Then check your notes.
Minutes 6–12	**Practice.** Chemistry: 3 problems (2 new, 1 from an older topic). Biology: 10 flashcards, new and old mixed. Cover the answers until you've tried.
Minutes 13–15	**Fix it.** Correct your mistakes in a different color. Put a star next to anything you missed. Those come first tomorrow.
Before bed	**10-minute look.** Read over your starred items on paper, then go to sleep.

Extra for college students

- **Space it out:** with a test 3 weeks away, come back to each topic every 3–5 days.[2]
- **Mix problem types** in one session so you practice choosing the right method, not just doing it.[13]
- **Chemistry:** for worked examples, say *why* each step happens before you look at the next one.[1,14]
- **Biology:** draw pathways and concept maps from memory (cell respiration, cell cycle, DNA to protein).[15]
- **Teach it:** once a week, explain one idea out loud to a friend or your phone camera, no notes.[16]

The cheat sheet method

1. **Write it from memory** on one page, notes closed.
2. **Check it** against your notes.
3. **Fill in what you missed** in a different color. That color is your study list.
4. **Redo it in 2–3 days.** Keep going until it's almost all one color.

What goes on it:

- The key equations or terms
- One worked example for each problem type, with a short "why" for each step
- One small diagram
- Your 3 most common mistakes

Your week

A normal week (tutoring once a week)

Every day	The 15-minute routine
Tutoring day	Bring your starred list and your cheat sheet
Day after	Redo 2 problems from your session without looking
Sunday	Rebuild this week's cheat sheet from memory (20–30 min)

Exam week (tutoring 2–3 times)

7 days out	Take a practice exam with a timer. **Tutoring #1:** go over every miss.
5–6 days	20–25 minutes a day on weak topics, mixed with old ones
3–4 days	**Tutoring #2:** new practice problems. Rebuild your cheat sheet from memory.
2 days	Redo the problems you missed. **Tutoring #3** (if needed): last questions.
Night before	15-minute review, then normal bedtime. **No all-nighters.**[9]
Exam day	Eat breakfast. Do the problems you know first.

Skip these

- **Rereading and highlighting** as your main studying. They feel productive but barely raise scores.[1,17]
- **"I'm a visual learner."** Studying in your "learning style" doesn't help. Everyone learns better with diagrams and practice.[18]
- **All-nighters.** Losing sleep before or after studying makes you remember less.[9]

Stuck? We'll help. Get free practice exams on our Free Resources page, or book a free 15-minute intro call at asacademicstudio.com. Flexible pricing available.

Sources

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