

### Organization and Notetaking

Use the techniques below to make the most of your learning. By being organized and taking good notes, you can ensure that by the time you start studying for a test, your brain has already done most of the hard work of learning the information. You won't have to waste time tracking down answers in a last-minute panic and instead walk into class on test day feeling prepared and in control.

### Organization

Keep a notebook or binder for each class.

For each unit, file all handouts, papers, quizzes, etc.

### Master material with active notetaking

We tend to lose almost half of new information within the first 24 hours of first reading or hearing it. If we take notes effectively, however, we can retain almost all the information we receive.

**Active** note-taking is the best!

Research shows that taking notes by hand wins over taking notes on your computer.

Instead of just copying information, invest mental energy to learn the information as you write it down.

When it comes to test time, you'll be prepared already, having learned the information well the first time you encountered it.

Review your notes as soon as possible after class to cement insights while the information is still fresh in your brain.

Understand the the goal of notetaking (hint: it's not just about writing stuff down)

More on active note-taking here

### Cornell note-taking (for non-math classes)

How to take Cornell Notes

As you read, ask yourself: "What question is being posed by this information?"

Write your **question** in the left column.

In the right column, write the **evidence** or information that answers the question.

At the end of each section of notes (covering a chapter or sub-chapter), review the information and keep thinking. Write a 1-2 sentence **summary** that reaches a conclusion about what the information means.

If you can't come up with the summary on your own, be sure to ask classmates or **see your teacher!**

Cornell notes sample for English

### Notes in math class

When your teacher works a sample problem, write down the question, answer, and intermediate steps.

Feel free to add little notes to yourself in the middle of the solution.

(If you can't get all the steps, at least get the question and answer to use for practice later.)

Also take notes on the teacher's explanations! Try to write them in your own words to make sure you get it.

The more you engage with the material and try to understand it as you go, the better.

Mark things you don't understand with big question marks to highlight trouble spots.

Make it your goal to replace question marks with answers within **48 hours!** See your teacher, ask your friends to explain, or Google it yourself!

Sample notes for math class

### Studying: Active Recall

The **worst** way to study is to re-read your textbook or your notes silently to yourself!

Instead, the **best** way to study is to use *active recall*.

**Active Recall:** Explain the information *out loud* without looking at your notes for the answers.

If you can explain it, you can be sure you understand it and won't forget it.

Beware: This requires hard mental work! But it will ensure that you learn best and in the least time. Embrace the struggle!

### Active Recall for non-math courses

If you've taken good Cornell notes, studying for a test is a breeze.

Cover the information on the right-hand side and use the questions as study prompts.

Next, try to remember the summary and what the information *means* in a big-picture way. How does the information connect to the larger **Essential Questions** of the unit?

Answer questions **out loud** to yourself as if you were the teacher. If you don't speak it, you can't know if you've learned it!

Repeat the process over a few days leading up to a big test.

### Active Recall for math courses

Re-work the sample problems without peeking at the solutions in your notes (or in your textbook).

Narrate your process **out loud** to make sure you can explain the steps.

It's not enough to memorize solutions without understanding the underlying concepts, since you'll need to be able to face new problems on the test.



### Flashcards

Flashcards are great for learning information that needs to be memorized!

Put a question on one side and your answer on the other.

To study, shuffle the deck and try to answer the question on each card.

Put cards that stump you into a separate pile to return to later.

Memorization can't be rushed! Practice in several small sessions over multiple days to save yourself a lot of painful work on the night before a test.

Use Quizlet!

### After the assessment

Ask yourself these questions:

What preparation helped?

What preparation didn't help?

What could I have done, but didn't, that would have made a big difference?

How can I prepare best next time?

### Time Management

The key to avoiding stress and last-minute panic is to space your work out over time. It pays off to make a plan for getting your work done!

Buy a big paper calendar and put it someplace where you'll see it daily. (Even better if it's public and your parents can see it too!)

Record the date of every major paper, test, or project. You should also fill in other big time commitments that you'll need to keep in mind when constructing a work schedule.

**2-week planning method:** Every night, look ahead two weeks, and for each deadline, plot out the steps you'll need to complete the work.

Schedule the steps on specific days on your calendar.

### Time Management (cont)

Seeing the schedule for each assignment spaced out **on paper** makes the work feel less overwhelming and helps you get down to business.

### Work Habits

If you are staying up late every night and feeling stressed out, it's time to re-evaluate your work habits.

Tip 1: Work in a quiet place by yourself where you'll be most likely to stick with it until you're done.

Tip 2: Break your work up into chunks. For example, the Pomodoro method involves working for 25 minutes and then taking a 5-minute break.

Tip 3: Get as much done in school as possible. Use your free periods and study halls productively!

Tip 4: Avoid distractions. Checking email, switching your playlist, answering a text. These are all activities that interrupt your concentration and make it difficult for your brain to process information. Unless you avoid these distractions, your studying will take more time and work will be sloppy.

Tip 5: Keep up your energy levels. Once every hour or so, have a healthy snack. (A healthy snack is something that doesn't come in a bag or wrapper. Look for foods in their natural state like fruit, or things that are high in protein like yogurt, cheese, peanut butter.)

Tip 6: When at all possible, avoid the internet! Turn off your phone. De-activate your wifi.

### Writing Papers

If you want to write good papers without stress, space the process out over three days!

### Writing Papers (cont)

Note: Many students start writing without first figuring out what they want to say, hoping that it will become clear as they go. This is a mistake. It's much better to isolate the thinking on its own day. You should have at least one full night's rest between each of the three days outlined below.

Day 1 = Researching. Look back over your notes to figure out what you're going to say. Capture what you want to say in a simple outline. After you finish drafting your outline, do something else to clear your mind. Then come back to it a little later with fresh eyes to see how you can make it better. NOTE: This is the hardest step. But since everything hinges on the thinking done here, it's worth taking extra time to get it right.

Day 2 = Writing. Use your outline from Day 1 to write out a draft. Don't worry too much about careful editing. Just get your ideas down into reasonably well-crafted sentences and paragraphs.

Day 3 = Editing. Two passes are best for good editing. On the first pass, look for obvious mistakes in structure or sequencing, add in transitions. For the second pass, print out the paper and read it **out loud**. (You are guaranteed to miss things if you read silently to yourself.)

### Cal Newport's Book

The information here is summarized from Cal Newport's book *How to Be a High School Superstar*. See also his blog, *Study Hacks*.

### More resources

Quiz Yourself on Learning Myths

Ten Rules of Good and Bad Studying

22 Science-Backed Study Tips to Ace a Test

23 Things Top Students Do

Study Guides & Tutorials

How to Reshape Your Brain and Learn Anything

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