

Is Chemistry Hard to Learn? + How to Make It Easier

Whether it's memorizing the table of elements and chemical formulas, or solving for atomic properties, chemistry is not exactly a walk in the park.

Chemistry can be hard to learn because of its steep progression, which means if you don't understand the early lessons, you will find it even more challenging to learn the later topics. For most concepts, you will also need multiple learning strategies like memorization, visualization, complex problem-solving, and logical analysis.

However, there are learning strategies you can use to make the learning process easier. Find out about these tricks and tips as you read on.

Why Is Chemistry Hard to Learn?

Chemistry can be challenging to sink your teeth in as it involves understanding the logical and abstract aspects of multiple concepts through repetitive studying.

To completely grasp the general topics of chemistry, you will need to:

- memorize key terms, elements, properties and principles
- use the right formula for chemical analysis
- create an accurate structural representation of various models
- comprehend the logical connections between concepts.

Then, as you move to the subdisciplines of chemistry - organic, inorganic, biochemistry, physical, and analytical - you will be introduced to complex topics that demand the same skills and more.

The progression of the topics can also become challenging. For instance, to balance chemical equations, you must first be familiar with the elements, their chemical formula, and the number of atoms in each molecule.

But aside from the nature of the subject, your foundation in learning science can become a factor in learning chemistry.

According to a study published in the [African Journals Online](#), one of the critical factors in why students perceive chemistry as a difficult subject is their lack of higher comprehension of scientific terms.

How Can I Be Good in Chemistry?

To become better at learning chemistry requires a commitment to learn and maximize educational resources available online and offline. Here are some steps to take if you wish to understand chemistry effectively.

1. Identify Which Topics You Find Challenging

Not all chemistry topics need more time and advanced comprehension. At the beginning of the subject, you'll find that concepts are easier to understand.

For example, general chemistry often starts with identifying types of materials based on properties and categorizing them accordingly. You simply have to group objects based on the types of matter (solid, liquid, gas, plasma).

However, as you move to higher concepts, you will need to understand how materials are classified based on their dominant elements and other properties at the atomic and subatomic levels.

As the subject progress, so is the level of difficulty. So, by being self-aware that you're struggling in learning a specific chemistry topic, you get to prioritize which concepts need more repetitive studying.

2. Know Your Learning Style

Your learning style can influence how you perceive a topic or subject, whether it's difficult or not. Generally, the four learning styles are visual, auditory, kinesthetic, and reading/writing.

Since chemistry has concepts that require logic, abstraction, and interpretation, analytical thinkers often thrive and find the learning process stimulating. Consequently, these learners are inclined to traditional teaching approaches encompassing reading and writing.

However, given the complexity of the subject, if you have a different learning style, you may find it hard to learn chemistry the conventional way. That said, consider other strategies that suit your learning style the most.

For example, if you're a visual learner, maximize using pictures, infographics, charts, and graphs. As an auditory learner, check out recorded lectures and videos online when studying specific concepts. And if you're more inclined to the kinesthetic learning style, perform safe experiments related to the topic.

Knowing your learning style requires self-assessment. Take online quizzes that identify your learner type, such as [Education Planner](#).

3. Take Advantage of Free Studying Tools Online

Use online tools and references that explain complicated concepts more understandably. You have a vast selection of study tools and learning resources online. Some of them are paid, but many are free.

Here are six free studying websites and resources you can use to learn chemistry the easy way:

1. [Khan Academy](#)
2. [Study.com](#)
3. [Chemistry Guide](#)
4. [ThoughtCo. \(for Chemistry terms\)](#)
5. [PhET Interactive Simulations](#)
6. [Video Tutorials: Professor Dave Explains](#)

4. Practice Solving Chemistry Problems Using Premade Quizzes

Answering different chemistry problems will help you recall formulas and employ strategies during standardized or academic tests.

This will also boost your interest in the subject as completing multiple problems increases dopamine which triggers your brain's reward system. As a result, you'll feel more confident and motivated to answer the quizzes.

To help you practice, check out these premade quizzes online with common and complex chemistry problems.

1. [ThoughtCo](#)
2. [edudose](#)
3. [Cliff Notes](#)
4. [softschools.com](#)
5. [ProProfs Quizzes](#)

5. Use Multiple Study Methods

There is more than one way to study subjects as complex as chemistry. This means you don't have to always go to the standard reading-memorization combo. Instead, explore techniques that work best for you, allowing the learning process to take place more smoothly.

Here are three studying methods you can consider:

1. Spaced Practice

This method relies on reviewing a topic multiple times within spaced days. Using this technique, make day one the day you learned the topic in class. Then, on days 2 and 3, you'll revisit the topic using the resources you gathered. Then, leave it out for the next few days, and do it again after two weeks.

This method works if you're aiming to have better recall. This is because your brain keeps recurring information over details you encountered once or a few times.

2. The Feynman Technique

Teaching is a great way to understand complex concepts. The Feynman technique uses this notion to help you learn a complicated topic easier. When studying, write down the topic on top of a paper and explain how you understood it along with crucial details as if you're teaching someone. Next, re-read the paper and identify points you got wrong, then correct them.

3. The Buddy System

Group studies or a buddy system is common among students since understanding complex topics become easier when you're in the same boat with other people.

However, studying together does not guarantee that you'll learn the concept. When employing a buddy system, explore different approaches to answering particular problems. Another opportunity you can take on is teaching one another based on how you perceived the topic.

Frequently Asked Questions

Is Chemistry the Most Difficult Subject?

Chemistry can be challenging to learn, but to say that it is the most difficult subject can be relative. Some find chemistry less difficult than physics and vice versa. It's preferential, but also, chemistry tends to have more direct applications to our daily life than other pure sciences of the same level.

Nonetheless, chemistry can be tricky as you will need to focus more on understanding concepts that are abstract and require in-depth analysis.

Which Is Harder, Chemistry or Math?

Considering the scientific and mathematical elements in chemistry that require structured imagination, it's easy to say chemistry is harder than math. However, both subjects involve the same higher-order thinking skills (HOTS).

But what makes chemistry extra complex is the fact that it also involves tons of memorization and abstraction. For instance, when learning about chemical laws, such as the law of constant

proportions, you must determine the fixed ratio of the elements' masses while imagining how the atoms combine.

Why Do Students Fear Chemistry?

Students fear or even hate chemistry because of its complexity, the amount of time needed to understand the subject, the hard-to-remember jargon, and the interconnectivity of the topics.

But you can supplement classroom learning with the abovementioned strategies. Repetitive exposure to a difficult concept allows your brain to receive information better and create appropriate connections. Follow the tips above if you find chemistry hard to learn, as said tricks help you understand the topics better.

Summary

Learning chemistry can be intimidating. The topics abstracted and constant analysis may be required. But with persistence and the right learning strategies, you can still get on top of your game and complete your chemistry course or subject successfully.