

Mnemonic Techniques

Remember things easily



How does this help me?

- Information is anchored in long-term memory via associations.
- Unrelated facts are particularly easier to memorize.
- Self-created mnemonics promote intensive engagement with the material – this additionally supports the learning process.

CC BY-SA – <https://creativecommons.org/licenses/by-sa/4.0/legalcode>

What are mnemonic techniques?

Mnemonics or mnemonic techniques are learning methods whose aim is to memorize information better and to retain it over a longer period of time. You may also know them under the name “memory devices”. They do not replace understanding the material and its connections, but help, for example, with numbers, dates, sequences, vocabulary, etc.

Some of these techniques have been used since ancient times. In this handout you will learn the following mnemonic techniques:

- **Acronyms, Acrostics, Songs and Rhymes**
- **Anecdotes**
- **The Method of Loci**
- **The Body List**
- **The Chain Linking Method**
- **The Keyword Technique**

Literature:

Hoffmann, Erwin (2020): Lernstrategien für das erfolgreiche Bachelorstudium. HDS-Verlag: Weil im Schönbuch, 128-131.



The word “mnemo” comes from the Greek word *mném* and means “memory” or “recollection”.



Learning is completely individual. Adapt the techniques to your own needs and learning material!





Acronyms, Acrostics, Songs and Rhymes Mnemonic Techniques

SCHLÜSSELKOMPETENZEN
IM STUDIUM



Short mnemonics come in various forms, such as acronyms, acrostics, songs and rhymes. They are well suited for information such as dates, series of terms, formulas or individual facts that are difficult to remember. Since they are usually less abstract than the original facts, they stick in your mind. In addition, acoustic structures such as melody, rhythm or rhymes make it easier to fill in missing elements. In the exam, you can then derive the associated information from the remembered mnemonic.

You can also create your own mnemonics. Make sure that your mnemonic is as short and clear as possible and follows a logic that you can reconstruct later.

Properties that increase memorability:

- Rhymes
- Alliterations
- Melodies/Rhythms
- Acronyms
- Concise images
- Personal relatability

My Very Excellent Mom Just Served Us Noodles
(Mercury-Venus-Earth-Mars-Jupiter-Saturn-Uranus-Neptune)

In **1492**,
Columbus sailed the ocean blue.



Stalagmites sit on the **G**round,
stalactites grow from the **C**eiling.



The Acronym **HOMES** stands for the five Great Lakes of North America
(**H**uron, **O**ntario, **M**ichigan, **E**erie, and **S**uperior)

To remember math operations: **Please Excuse My Dear Aunt Sally**
(**P**arentheses, **E**xponents, **M**ultiplication/**D**ivision, **A**ddition/**S**ubstraction)

Tip: **Songs are a fun way to learn things.** The group AsapSCIENCE has, for example, a youtube playlist with **science songs**:
<https://www.youtube.com/@AsapSCIENCE>

Literature:

Nordkämper-Schleicher (1998): Besser behalten. Mnemotechniken beim Sprachenlernen am Beispiel ‚Deutsch als Fremdsprache‘ für Erwachsene. Pädagogische Hochschule Freiburg: Freiburg im Breisgau, 86ff.
CC BY-SA - <https://creativecommons.org/licenses/by-sa/4.0/legalcode>



Anecdotes

Mnemonic Techniques

SCHLÜSSELKOMPETENZEN
IM STUDIUM



Anecdotes or short stories are easier to remember than stand-alone, unrelated concepts because the individual elements of what happens in the story are connected and build off each other. In addition, the stories are often exciting or funny. In the past, a lot of information was passed on through stories.

How does it work?

Combine the information you want to learn into a story. You can also replace abstract terms, difficult names, or technical words with symbols or similar sounding words. Unusual and funny stories that you can visualize are particularly effective.

It is best to write down your anecdote, whether as running text or in key words. You can also draw a kind of “storyboard” to anchor the information visually.

Example: The last four presidents of the United States

Joseph R. Biden – Donald J. Trump – Barack Obama – George W. Bush

Anecdote:

One day, you went to an auction house where you **bid (Biden)** on a very expensive house. Your bid **trumped (Trump)** all other bids and you got the house. The house was designed in a **baroque (Barack)** style. When you visited the house after the auction, you saw that it was located in a forest, surrounded by many, many **bushes (Bush)**.



Literature:

Krengel, Martin (2019): Bestnote. Lernerfolg verdoppeln, Prüfungsangst halbieren. Eazybookz: Berlin, 183-184.
CC BY-SA - <https://creativecommons.org/licenses/by-sa/4.0/legalcode>



The Method of Loci

Mnemonic Techniques

SCHLÜSSELKOMPETENZEN
IM STUDIUM



With the method of loci, the information that you want to learn is arranged as mental images along a route you know well. When you want to recall the information, you take an imaginary walk along this route and find all the information there.

This method is especially good for series of terms or numbers, no matter if the order of the terms is important (like with phone numbers) or not (like with your shopping list). You can also use it to remember all the important parts of your presentation.

How does it work?

1. Select a route with the required number of locations

Preferably one you know well, e.g., the way to the university or through your own apartment. The individual locations should stand out or be relevant to you and not too close to each other, so that you are sure to notice them when you take your mental walk along that route.



2. Link the individual locations with the information you want to learn (1 location = 1 item, which can be a fact / a term / a number / ...)

Use visual images - your links can be a bit fantastic or crazy. The most important thing is that they are easy to remember. For numbers, for example, you can use visually similar objects.

3. Mentally retrace your route and “retrieve” the information

It is helpful to note how many locations your route consists of in total. This way you can check if you missed an item.

You can find an example of the method of loci on the next page!



Literature:

Stangl, Werner (2005): Mnemotechniken, in: Heinz Mandl, Helmut Felix Friedrich (Ed.): Handbuch Lernstrategien. Hogrefe: Göttingen, 101-117 and 91-92.

CC BY-SA - <https://creativecommons.org/licenses/by-sa/4.0/legalcode>



The Method of Loci

Example

SCHLÜSSELKOMPETENZEN
IM STUDIUM

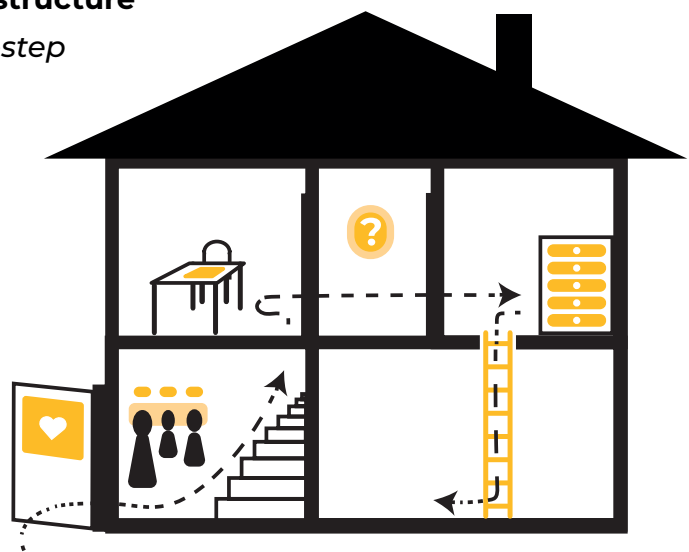


Example: The main points of your presentation

Greeting – Self-introduction – Explain the relevance of the subject – Present the question you want to answer – Introduce the five-step structure of your presentation – Discuss the topic in depth – ...

Route through your house following the method of loci:

1. You unlock the door. There is a **sign** hanging on it that says „**Welcome**“ (*Greeting*).
2. The **coat hooks** are labeled with the **names** of you and your flatmates. You hang your jacket on the one with your name (*Self-introduction*).
3. The current **newspaper** lies on the **kitchen table** (*Explain the relevance of the subject*).
4. An **abstract picture** hangs in the hallway that leads to your room, and you always **ask** yourself what it means (*Present the question you want to answer*).
5. When you arrive in your room, your eyes land on the **five-drawer chest** which helps you **structure** your belongings (*Introduce the five-step structure of your presentation*).
6. You want something to drink, so you descend into the **depths** of the **cellar** (*Discuss the topic in depth*).
7. ...





The Body List

Mnemonic Techniques

SCHLÜSSELKOMPETENZEN
IM STUDIUM



How does it work?

The body list is a variation of the method of loci: Instead of locations on a route, you use your own body parts to arrange and remember information in a certain order. For example, you can proceed from the tips of your toes up to your head.

Again, use catchy and creative shortcuts because they are easier to remember.

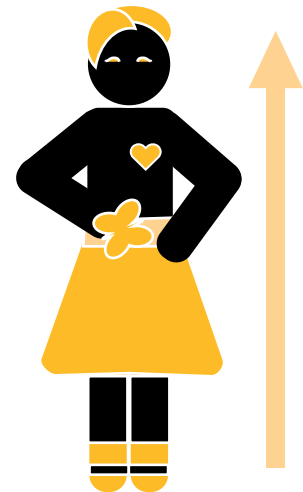
Example: The most important American historic eras and their chronological order

(This is a rough order, of course, as eras tend to overlap)

*Civil War – Industrialization – Progressive Era – Roaring Twenties – Great Depression
– World War II – Modern Era – ...*

Body list:

- During the **Civil War**, people were stepping on each other's **toes**.
- The socks on my **ankles** were created by factories built during the **Industrial era**.
- The ripped jeans skirt around my **hips** is part of my **progressive** fashion outfit.
- When I was in my **twenties**, I flirted a lot and would always get butterflies in my **stomach**.
- But when I think about my latest breakup, I get so **depressed** that my **heart** aches.
- When I watch the news, I want to close **both** my **eyes** because there is so much **war in the world**.
- I like my new, **modern haircut** that I got yesterday.
- ...



Literature:

Hoffmann, Erwin (2020): Lernstrategien für das erfolgreiche Bachelor-Studium. HDS-Verlag: Weil im Schönbuch, 128-129.

CC BY-SA - <https://creativecommons.org/licenses/by-sa/4.0/legalcode>



The Chain Linking Method

Mnemonic Techniques

SCHLÜSSELKOMPETENZEN
IM STUDIUM



To remember items in a certain order, you can also connect them in form of a chain.

How does it work?

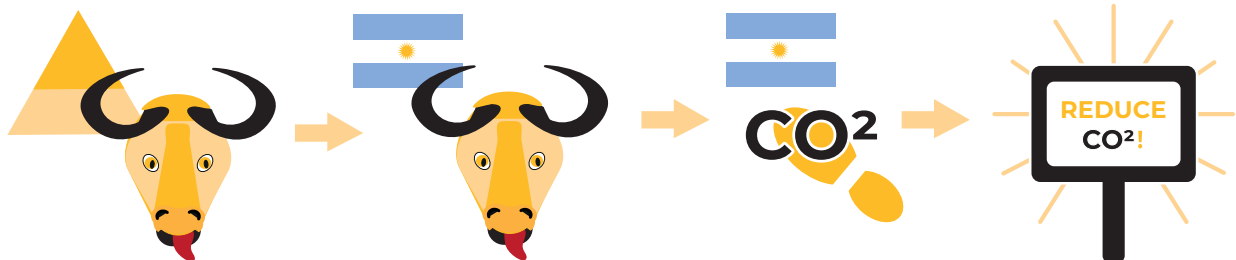
Every “chain link” is connected with both the previous and the following item with the help of an association or a picture. If you remember the first item, you can continue along the chain to deduce the other items. This way, you will only have to actively remember the first item when you sit down to take the exam.

Example: Chemical composition of air (in descending order of percentage)

Nitrogen – Oxygen – Argon – Carbon Dioxide – Neon – ...

The chain link:

- **Nitrogen & Oxygen:** The **nutritional value** of **ox tongue** is not very high.
- **Oxygen & Argon:** But you really like **ox tongue** from **Argentina**.
- **Argon & Carbon Dioxide:** Imported goods from **Argentina**, however, have a high **carbon footprint**.
- **Carbon Dioxide & Neon:** Just yesterday, you went to a demo holding a **neon sign** with the words “Reduce **CO₂**!”
- **Neon & ...**



Literature:

Metzig, Werner; Schuster, Martin (2020): Lernen zu lernen. Lernstrategien wirkungsvoll einsetzen. 10th ed. Springer: Berlin/Heidelberg, 77-78.

CC BY-SA - <https://creativecommons.org/licenses/by-sa/4.0/legalcode>



The Keyword Technique for numbers Mnemonic Techniques

SCHLÜSSELKOMPETENZEN
IM STUDIUM



There are situations in which individual items of a list need to be retrieved quickly (e.g., “**Who was the seventh president of the United States?**”). In those moments, it can be helpful if these items have previously been linked to their position in that list. Using keywords is an easy way to create a link between numbers and the things you want to remember.

Once memorized, your list of keywords can then be used for any situation in which numbers are involved.

Possible keywords for numbers (using rhymes):

- | | |
|------------------|---------|
| 1: sun | 9: wine |
| 2: shoe | 10: hen |
| 3: tree | |
| 4: floor | |
| 5: drive | |
| 6: sticks | |
| 7: heaven | |
| 8: plate | |

Example:

Who was the **seventh** president of the United States?

**Anne drew Jack's son (Andrew Jackson) in Heaven (seven):
The seventh president was Andrew Jackson.**



Tip: The keyword technique is especially useful for sequences of numbers! Simply combine the keywords belonging to the numbers to create a short story or a single sentence.



Example: Goethe's year of birth

1749 = sun (1) – heaven (7) – floor (4) – wine (9)

Keyword story:

The **sun** shines in **heaven**, where the **floor** is made of **wine**.

Literature:

Metzig, Werner; Schuster, Martin (2020): Lernen zu lernen. Lernstrategien wirkungsvoll einsetzen. 10th ed. Springer: Berlin/Heidelberg, 74ff.

CC BY-SA - <https://creativecommons.org/licenses/by-sa/4.0/legalcode>



The Keyword Technique for the alphabet Mnemonic Techniques

SCHLÜSSELKOMPETENZEN
IM STUDIUM



You can also apply the keyword technique to the alphabet to remember sequences of letters. This can be useful, for example, for spelling complicated words or for sequences of words where you only need to recall the first letter of each word in order to remember the rest.

How does it work?

For each letter, choose a term with the same first letter, e.g., an animal. The respective animals can then be combined to form a story, sentence or picture.

Possible keywords for the alphabet (using animals):

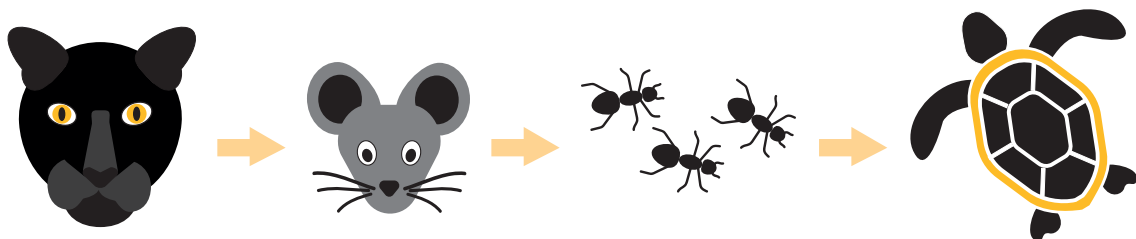
A: ant	(...)	P: panther	T: turtle
B: bird	M: mouse	Q: quail	(...)
C: chameleon	N: narwhal	R: rabbit	
D: dog	O: ostrich	S: snake	

Example: The four phases of mitosis (cell division):

Prophase – Metaphase – Anaphase – Telophase

Keyword story:

A black **panther** is hunting **mouse**. They come across a colony of **ants**. The hunt abruptly ends at the sea, where a **turtle** is slowly swimming in the water.



Literature:

Metzig, Werner; Schuster, Martin (2020): Lernen zu lernen. Lernstrategien wirkungsvoll einsetzen. 10th ed. Springer: Berlin/Heidelberg, 74ff.

CC BY-SA - <https://creativecommons.org/licenses/by-sa/4.0/legalcode>