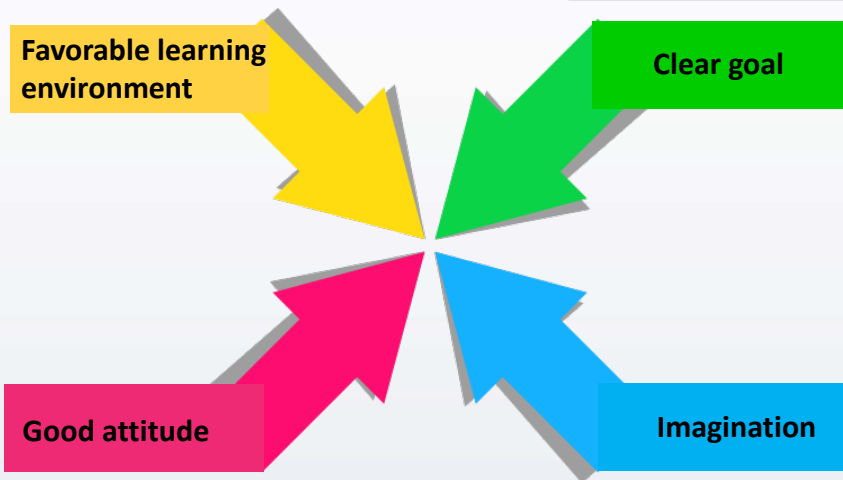


Study techniques – General Ideas

How to prepare for effective learning



Favourable learning environment

- The room is quiet and well ventilated, without noise from outside world
- The room should be painted and furnished in colours that you like, but also calm, causing a feeling of freshness
- Study in daylight or use incandescent bulbs
- Listen to the gentle relaxing music but choose it depending on whether you are chilling out (passive, slow concert) or learning – (active concert)
- Study at your desk/table, sitting on a rather hard chair with a backrest
- Keep drinking water at hand
- Keep in your sight some written maxims, aphorisms and precisely formulated goals
- Ensure that in your close proximity you have symbols of boundless human potential, which have a positive impact on our subconscious - sky map, globe, image of sea depths, mountain climbing ...
- Have all useful accessories at hand: books, atlases, clean sheets of paper, markers, pens, etc ...



Awareness

When preparing for serious studying, you need to specify your goal. The goal includes the answers to *what, how much, at what time* you want to study and *what you want to accomplish* after learning (e.g. pass the exam, have satisfaction, reward yourself).

The goal must be:

- Clearly specified
- Realistic, but difficult enough to constitute an attractive challenge
- Positively formulated (it is easier to aim for something desirable than unwanted)
- Written down as a detailed plan.

S

• **Specific:** state exactly what you want to accomplish

M

• **Measurable:** how will you evaluate the extent to which the goal is met?

A

• **Achievable:** The goal has to be within your abilities

R

• **Relevant:** How is your goal aligned to your overall objectives?

T

• **Time-bound:** Set 1 or more target dates to guide your goal to successful and timely completion

Proper attitude to learning

- Positive attitude has a great impact on effects of your work
 - Have the right, attitude in the course of learning: the state of curiosity, optimism, relaxation and concentration on the task is particularly important when learning.
 - Stop thinking and talking negatively about your capabilities. Cross out "can not do it", „I'm too stupid to learn that,,, „I have a poor memory" from your vocabulary. Instead, start using: „of course, that I'll learn,,, „I'll remember it easily", "I have my memory and attention under my control"
 - Take care of yourself. Best relax in motion (exercises in brain gym theme can be found in e.g. „Smart moves" by Carla Hannaford)
 - Listen to relaxing music or music that activates learning
 - Use your imagination, creativity and visualization. Imagine yourself as an excellent student who receives the awards and passes exams perfectly
- Be patient and consistent in what you do. Remember that practice makes perfect
- Treat your errors only as a feedback. Don't make too much fuss about them. Analyze them so you won't make them again.

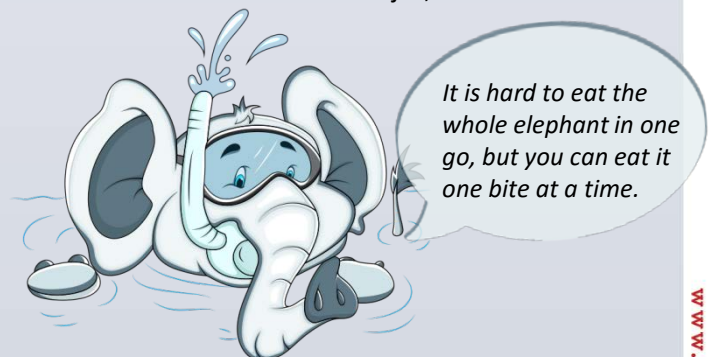
"You made a mistake? – Celebrate!"

Virginia Satir - psychotherapist

What music will make you learn faster?

Choose music you like, which relaxes you but doesn't make you fall asleep. Classical music proves to be very helpful. You can try for example:

- Tomaso Albinoni:
 - Concerto Op.9 No.2 in D Minor, Adagio
- Georg Telemann
 - Fantasias for harp
- Antonio Vivaldi:
 - Largo from concert in D minor for viola RXII 38
 - Largo from concert in C major for mandolin
 - Concerto in D major for lute F XII No. 15
- Georg Handel:
 - Largo from Concerto in G minor for cello and strings
 - Six fantasies for harp
- Peter Tchaikovsky:
 - Piano Concerto in B flat minor
- Arcangelo Corelli:
 - Saraband concert in D major, No. 7
 - Concerto in A-minor, No. 9, the prelude
- Johann Sebastian Bach:
 - Largo from Concerto in F major for harp
 - Largo from Concerto in G major for flute and strings
 - Brandenburg Concerto No. 5, Part II
- Ludwig Van Beethoven:
 - Violin Concerto in D major, Op. 61
- Johan Georg Pachelbel:
 - Concerto in D major, andante
 - Sinfonia in B flat major, andante



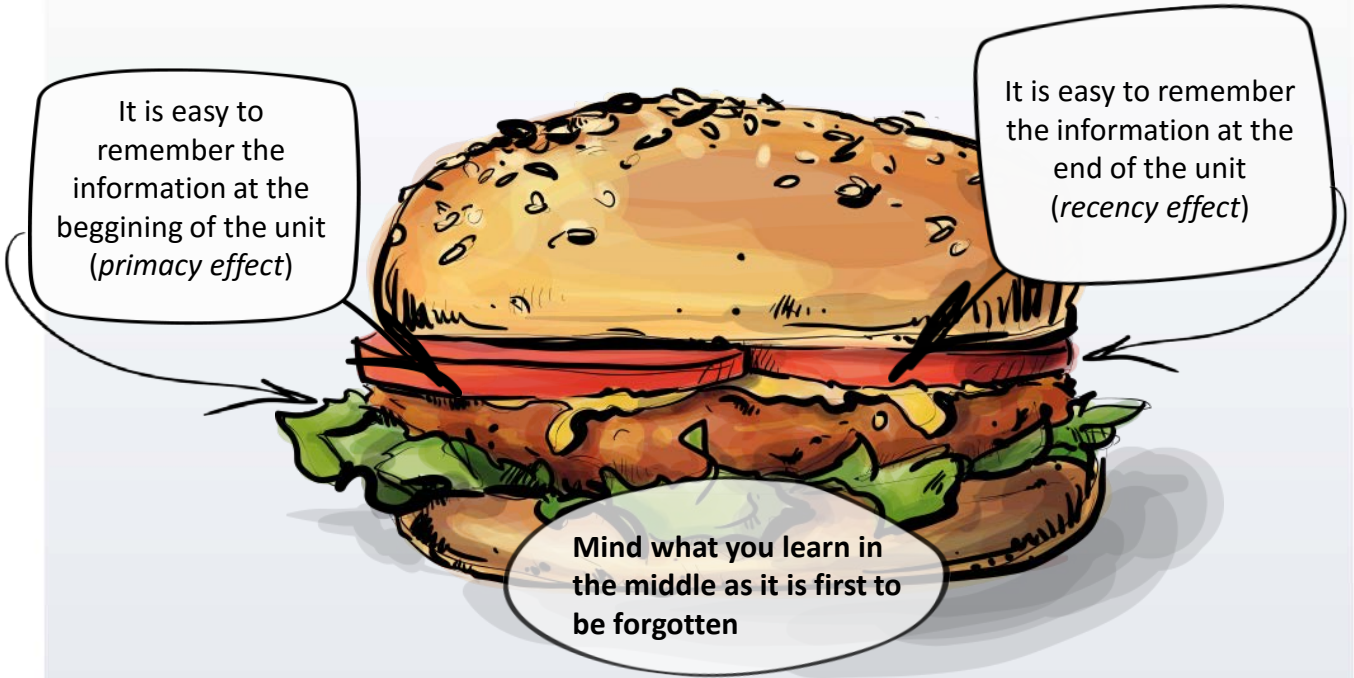
Do not try to do too much at once

Divide your work into smaller pieces based on time and study material. For example decide that you will learn for an hour at a time or you will cover 2 subjects in every session.

Remember to divide the material into logical pieces not pages/minutes. If you finish a module little earlier or later adjust your plan.

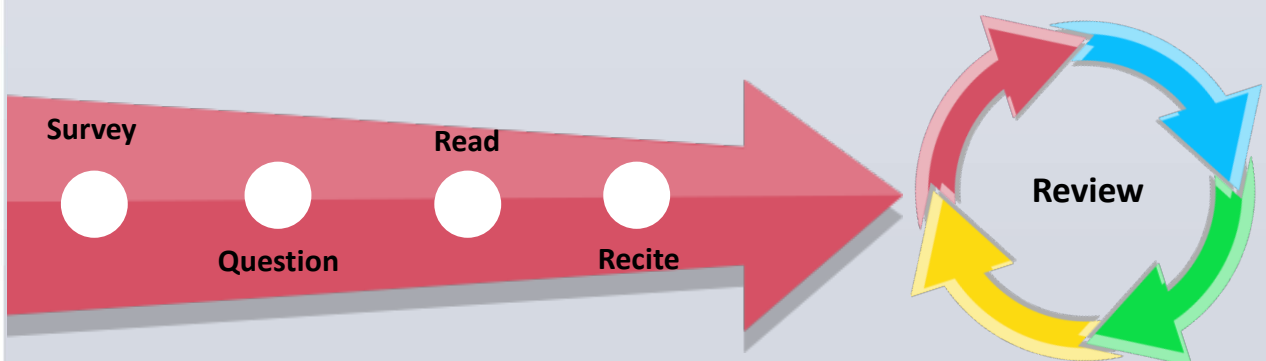
Study techniques – Important Tips

Mind the middle

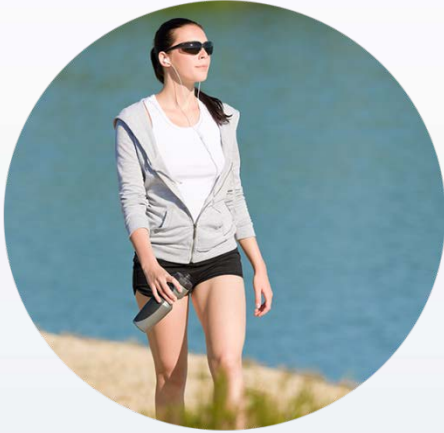


How to effectively work with a text

SQ3R	
Survey	Survey the text or a book. Try to catch the overall idea and structure.
Question	Ask yourself: What do I already know on the subject? What is new for me?
Read	Read actively and attentively. Find the answers for questions mentioned above.
Recite	Recite what you have read (main ideas)
Review	Review what you have learned. Check if you understand and remember everything.



Take Breaks



- Do not study big chunks of material in one go
- The harder and longer learning material - the more study sessions
- The harder the learning material - the shorter the breaks
- The more compact material - the shorter the breaks
- The longer you study - the longer the breaks
- First study session should be the longest

How to take a good break?

- Not too long:
 - a 10 minutes break for 50 minutes of work
 - a 5 minutes break for 30 minutes of work
- Review the material before the break
- Breaks should have diverse nature. They are for you to regather strength not to be boring. Do what you like.
- Don't be strict. If study material is harder, take breaks more often. If it is easier, take them less often.



How to memorize effectively?



- Recapitulate what you have learnt
- Ask yourself:
 - Do I know everything?
 - Do I understand everything?
- Associate what you have just learnt with what you already know
- Use your notes
- Review with a study group
- Get adequate sleep to consolidate and retain memories.

More learning tips

- Keep the motivation to learn – remind yourself that you want to learn and enjoy science
- Learn in accordance to the agreed goal
- Find 5 minutes to imagine the moment when you will fulfill the goal - where you are, how you feel
- Write down the benefits of achieving goal
- If you do not want to study, start right now - use at least 5 minutes to learn and you will see that after 5 minutes you will be interested and spend another few minutes. This is called a snowball effect
- Reward yourself for completing the various stages of learning. Have tea with a friend, go out for a walk, get a healthy snack.
- Find a friend in science - someone with whom you can learn and revise
- Mark the progress, e.g. make check-boxes for the units you want to cover and tick them one by one.
- Skip a maximum of one day in learning, longer breaks make you lose your rhythm and make it harder to get on with learning again
- Find a role model, scientific idol to whom you would like to be alike e.g. Einstein in physics.
- If you have to learn a large batch of material, divide it into smaller parts and start learning from smaller and simpler parts to build a positive motivation to continue learning more difficult parts
- When studying, focus only on science: designate a time to learn and dedicate yourself to it. Isolate yourself so you will not be distracted, bring together all the things necessary while learning and have them at your fingertips (drinking water, books, pencils, notebook, etc.) so you do not have to stop studying to look for them. Turn off all phones, fb, do not view e-mail.
- Remember to take breaks in order not to overload the mind. The more difficult the material to learn, the more frequent the breaks should be. But keep the breaks short (approx. 5-10 min). The easier the material, the more you can learn in one go and less frequent the breaks should be.
- Remember that during breaks you should do something completely different from what you did while learning so that your mind and body can rest. If you have studied by reading of the book then do not read the book during your break because the brain is doing the same action so it will not rest.
- Make sure to eat healthily when learning, sleep at night (at least 8h), walk around outdoors and play sports.

