



LEARN TO STUDY USING... Retrieval Practice

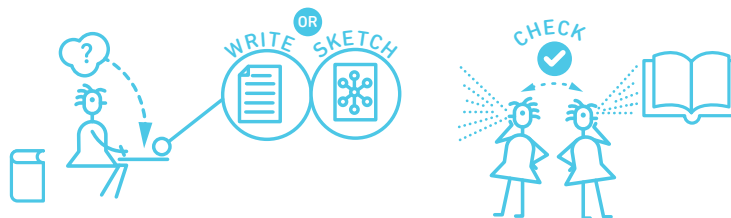
PRACTICE BRINGING INFORMATION TO MIND

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HOW TO DO IT

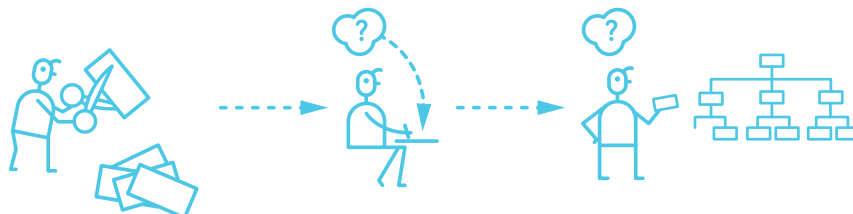
Put away your class materials, and write or sketch everything you know. Be as thorough as possible. Then, check your class materials for accuracy and important points you missed.



Take as many practice tests as you can get your hands on. If you don't have ready-made tests, try making your own and trading with a friend who has done the same.



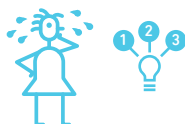
You can also make flashcards. Just make sure you practice recalling the information on them, and go beyond definitions by thinking of links between ideas.



HOLD ON!



Retrieval practice works best when you go back to check your class materials for accuracy afterward.



Retrieval is hard! If you're struggling, identify the things you've missed from your class materials, and work your way up to recalling it on your own with the class materials closed.



Don't only recall words and definitions. Make sure to recall main ideas, how things are related or different from one another, and new examples.

RESEARCH

[Read more about retrieval practice as a study strategy](#)

Roediger, H. L., Putnam, A. L., & Smith, M. A. (2011). Ten benefits of testing and their applications to educational practice. In J. Mestre & B. Ross (Eds.), *Psychology of learning and motivation: Cognition in education*, (pp. 1-36). Oxford: Elsevier.



LEARN TO STUDY USING...

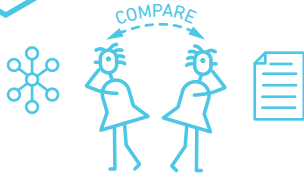
Dual Coding

COMBINE WORDS AND VISUALS

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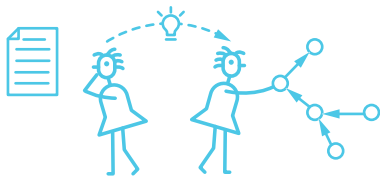
HOW TO DO IT



Look at your class materials and find visuals. Look over the visuals and compare to the words.



Look at visuals, and explain in your own words what they mean.

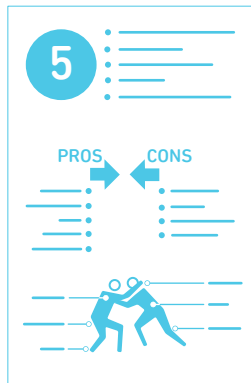


Take information that you are trying to learn, and draw visuals to go along with it.

HOLD ON!

Try to come up with different ways to represent the information visually, for example an infographic, a timeline, a cartoon strip, or a diagram of parts that work together.

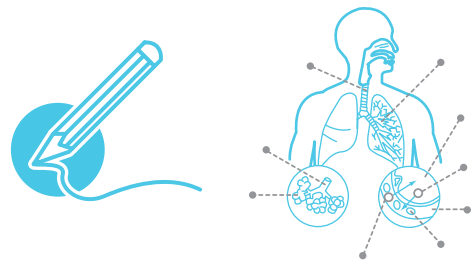
INFOGRAPHIC



CARTOON STRIP



DIAGRAM



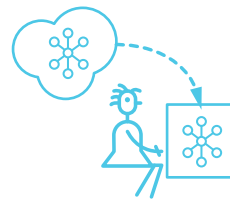
TIMELINE



GRAPHIC ORGANIZER



Work your way up to drawing what you know from memory.



RESEARCH

[Read more about dual coding as a study strategy](#)

Mayer, R. E., & Anderson, R. B. (1992). The instructive animation: Helping students build connections between words and pictures in multimedia learning. *Journal of Educational Psychology*, 4, 444-452.



LEARN TO STUDY USING... Concrete Examples

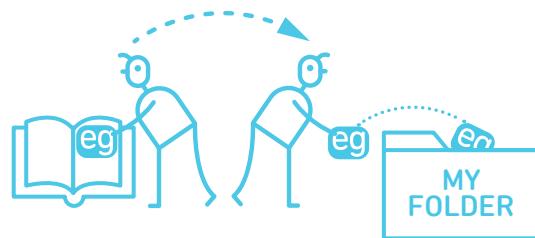
USE SPECIFIC EXAMPLES TO UNDERSTAND ABSTRACT IDEAS

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HOW TO DO IT

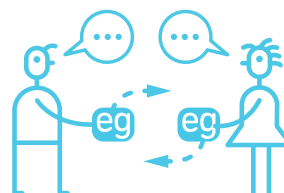
Collect examples your teacher has used, and look in your class materials for as many examples for as many examples as you can find.



Make the link between the idea you are studying and each example, so that you understand how the example applies to the idea.



Share examples with friends, and explain them to each other for added benefits.



HOLD ON!



You may find examples on the internet that are not used appropriately. Make sure your examples are correct - check with your teacher.



Ultimately, creating your own relevant examples will be the most helpful for learning.

RESEARCH

Read more about [concrete examples as a study strategy](#)

Rawson, K. A., Thomas, R. C., & Jacoby, L. L. (2014). The power of examples: Illustrative examples enhance conceptual learning of declarative concepts. *Educational Psychology Review*, 27, 483-504.



LEARN TO STUDY USING...

Spaced Practice

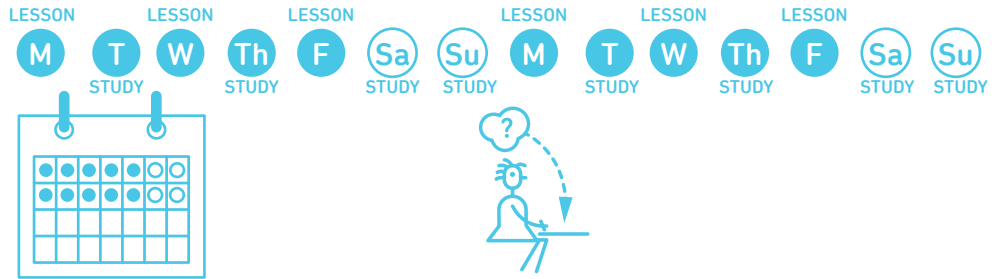
SPACE OUT YOUR STUDYING OVER TIME

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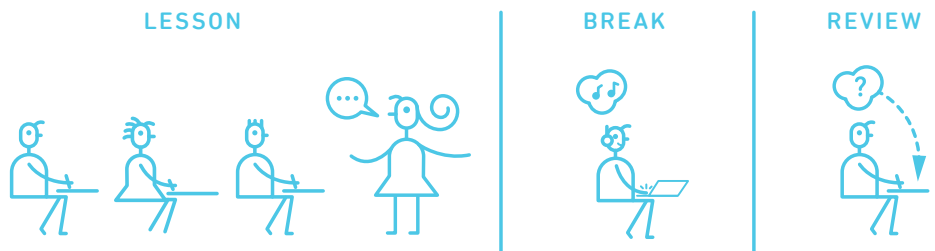


HOW TO DO IT

Start planning early for exams, and set aside a little bit of time every day. Five hours spread out over two weeks is better than the same five hours all at once.



Review information from each class, but not immediately after class.



After you review information from the most recent class, make sure to go back and study important older information to keep it fresh.



HOLD ON!

- 1 TESTING
- 2 SPACING
- 3 SKETCHING



When you sit down to study, make sure you are using effective study strategies rather than just re-reading your class notes.



This may seem difficult and you may forget some information from day to day, but this is actually a good thing! This forces you to retrieve information from memory (see Retrieval Practice poster).



Create small spaces (a few days) and do a little bit over time, so that it adds up!

RESEARCH

[Read more about spaced practice as a study strategy](#)

Benjamin, A. S., & Tullis, J. (2010). What makes distributed practice effective? *Cognitive Psychology*, 61, 228-247.