



# **GA Student**

## **Six strategies to help you learn**

### **Spaced Practice**





LEARN TO STUDY USING...

# Spaced Practice

SPACE OUT YOUR PRACTICE OVER TIME



You have a 1 minute to memorise these words  
( do not write them down ):

Assertion

Gross

Collide

Mirth

Consent

Old-fashioned

Eloquent

Quench

Esteem

Memorise

We will check what you memorised later.  
You might not be familiar with some of the  
words but that does not matter.



# Spaced practice

**“Spaced practice ”** is a learning strategy where you space out studying over time instead of cramming right before an exam. When you space your learning, you take that same amount of study time, and **spread it out** across a much longer period of time. **Doing it this way, that same amount of study time will produce more long-lasting learning.** For example, five hours spread out over two weeks is better than the same five hours right before the exam.



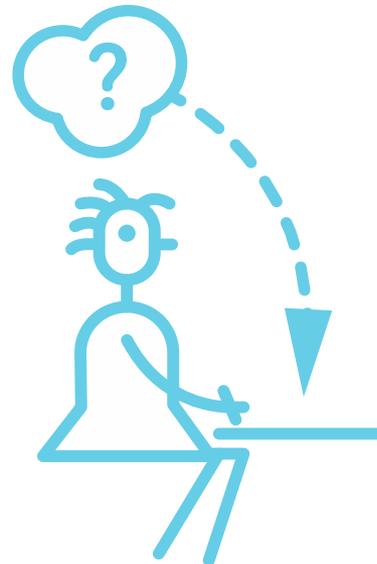
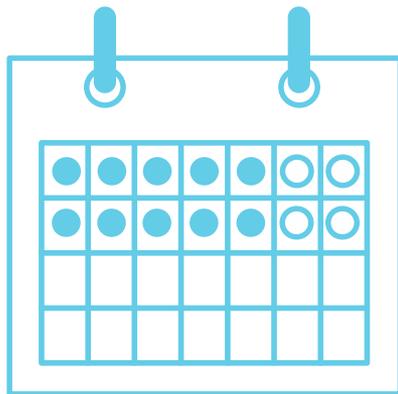


# Spaced Practice

## HOW TO DO IT

<https://www.youtube.com/watch?v=3WJYp98eys8>

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.



# Write down as many words as you can remember from the list

1.....

6.....

2.....

7.....

3.....

8.....

4.....

9.....

5.....

10.....

How did you get on ?

Did you get them all ?

Did your partner ?



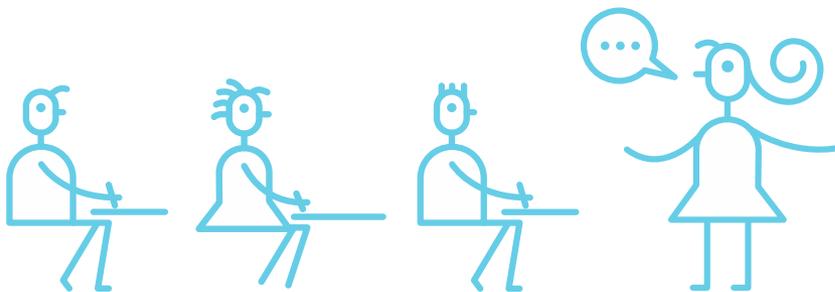


# Spaced Practice

## HOW TO DO IT

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

### LESSON



### BREAK



### REVIEW





# Spaced Practice

## HOW TO DO IT

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





# Spaced Practice

## HOLD ON

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

TESTING ①      ② SPACING      ③ SKETCHING

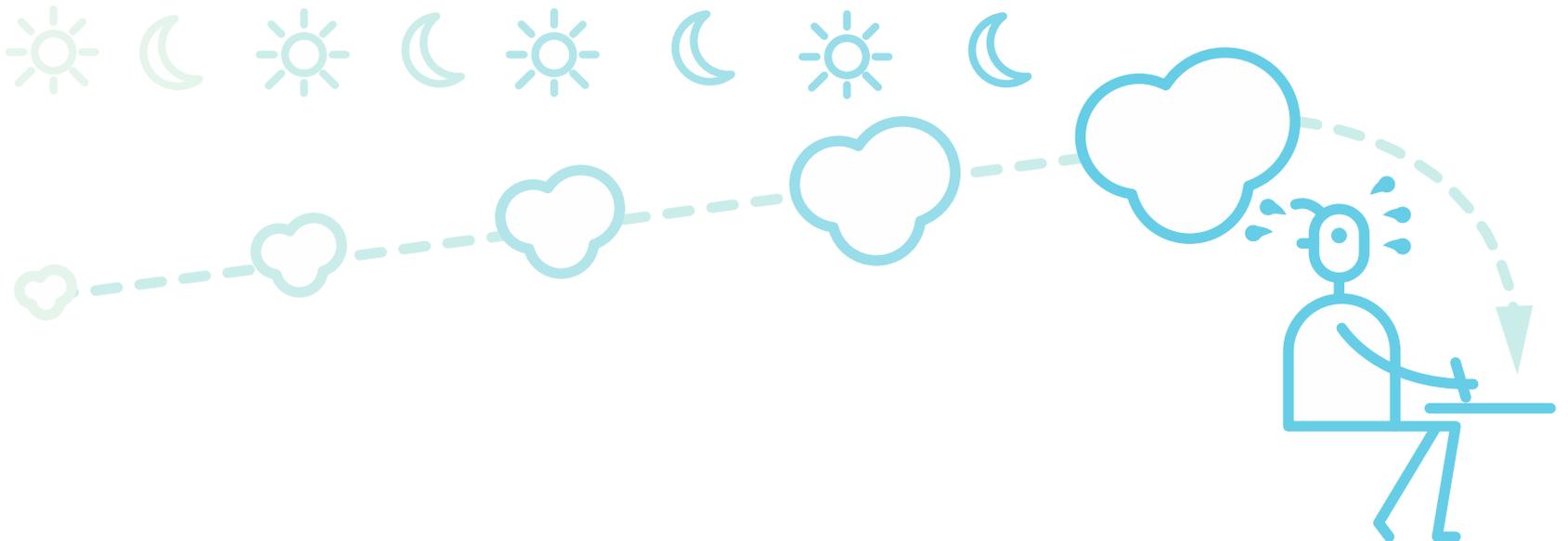




# Spaced Practice

## HOLD ON

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.

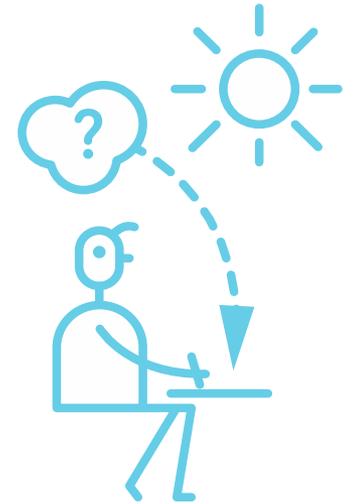
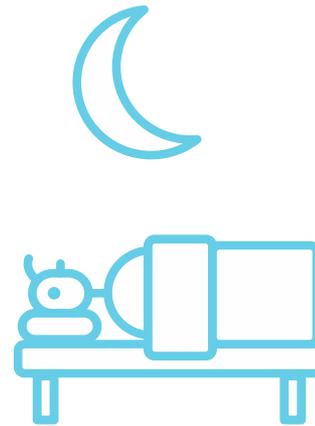
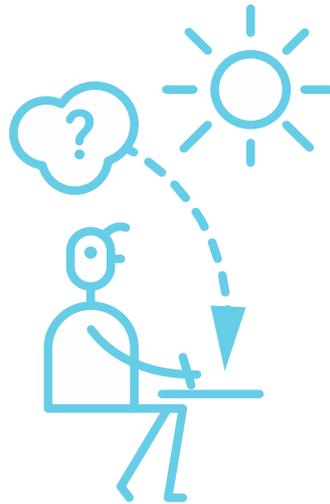
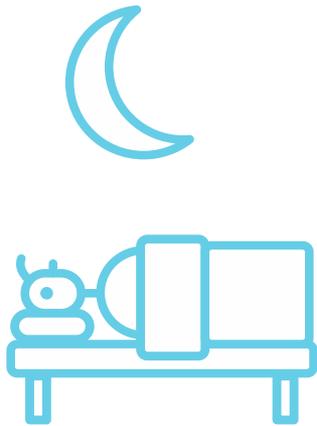




# Spaced Practice

HOLD ON

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



# How to construct a revision/homework timetable

Before we begin, here are a few things you need to work out first.....

How many subjects do you have to study for? \_\_\_\_\_

1) \_\_\_\_\_

2) \_\_\_\_\_

3) \_\_\_\_\_

4) \_\_\_\_\_

5) \_\_\_\_\_

6) \_\_\_\_\_

7) \_\_\_\_\_

8) \_\_\_\_\_

9) \_\_\_\_\_

10) \_\_\_\_\_

11) \_\_\_\_\_

12) \_\_\_\_\_





# How to construct a revision/homework timetable

1. Are there any subjects you feel you might need to spend a bit more time on during revision? For example, are there any that you didn't do quite so well on in your mocks, or subjects that you are intending to study at A-level and need to do a bit more work on?
2. Do you have any commitments during the week that are going to make revision difficult on some days? For example, if you play football, when do you play and for how long?

Sunday: \_\_\_\_\_ Monday: \_\_\_\_\_ Saturday: \_\_\_\_\_

Tuesday: \_\_\_\_\_ Wednesday: \_\_\_\_\_

Thursday: \_\_\_\_\_ Friday: \_\_\_\_\_



# How to construct a homework/revision

## Revision...the rules!

1. No more than 40 minutes non-stop revision at a time!
2. Don't overdo it! Revising solidly from 4pm until midnight will exhaust you and your brain! A tired brain can't learn! Make sure you get plenty of sleep and have a proper break for meals.
3. Take a ten-minute break in between sessions; get a drink, stretch your legs and give your brain a break!
4. Be proactive! Simply reading notes is no help to you – make notes, mind map and use colours! Keep your brain busy! Don't let it switch off!





# Spaced Practice

## RESEARCH

Read more about spacing as a study strategy

● Spacing your study

<http://www.learningscientists.org/blog/2016/7/21-1>

● Spacing in teaching practice.

<http://www.learningscientists.org/blog/2016/4/12-1>

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



# How to construct a revision/homework timetable

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
17:00-18:00							
18:00-19:00							



# How to construct a timetable

## Revision...the rules!

5. Spread your subjects out too. Don't choose to revise all three sciences one after the other on the same day. You will get bored! And make sure you use a variety of techniques.
6. Do some note taking for one subject, some mind mapping for another and maybe try some past paper questions out for the next subject after that!
7. Attached is an example of a revision timetable. Every person is different though, so every revision timetable is different – you need to work out what is best for YOU!



# Task 1

Look at the words again.

This time they are linked to pictures

Can you remember them better ?

Check your recall at the next session.



# Assertion



a statement that you strongly believe is true

# Collide



to come together with great force

# Consent



permission or agreement

# Eloquent



fluent or persuasive speaking or writing

# Esteem



to regard highly; a highly favorable opinion or judgement

# Gross



disgusting

# Mirth



gladness and merriment usually accompanied by laughter

# Old-fashioned



not modern

# Quench



to satisfy

# Memorise



to state again; to cause to remember

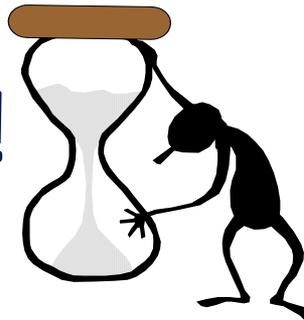
# How to construct a homework/revision timetable

## Revision...the rules!

Lastly, don't panic!

If you are organised, you will be fine!

Lots of regular revision, slotted into your normal routine, is a hundred times better than manic swotting the day before.





# GA Student

## Six strategies to help you learn

### Concrete examples

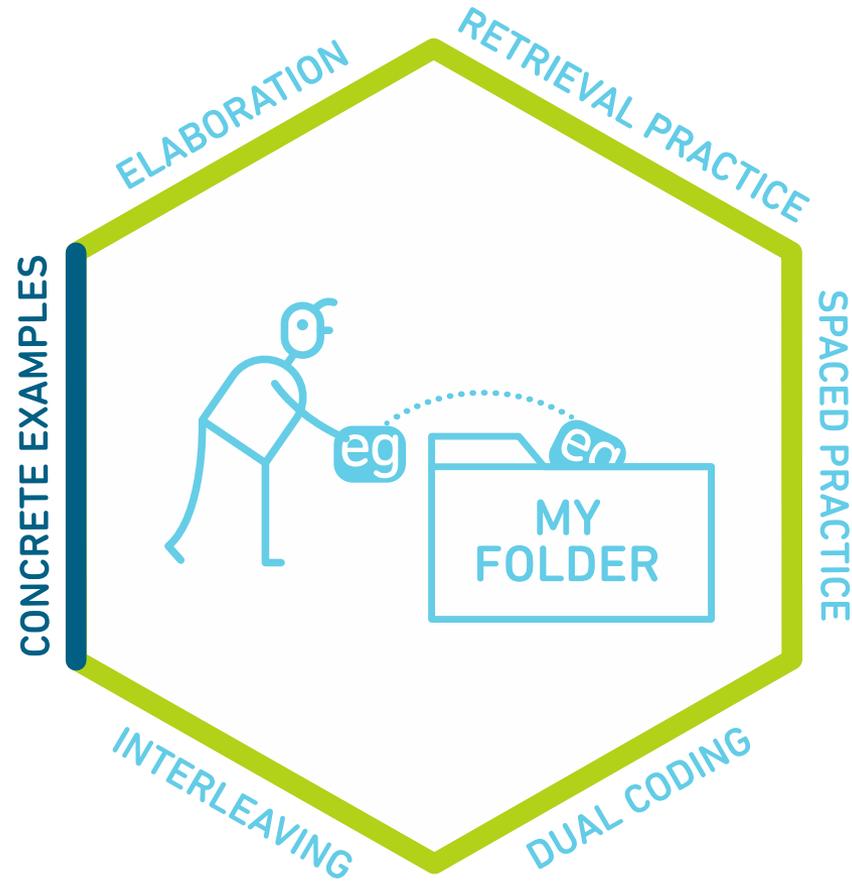




LEARN TO STUDY USING...

# Concrete Examples

USE SPECIFIC EXAMPLES TO UNDERSTAND ABSTRACT IDEAS



# Concrete examples

Concrete terms refer to objects or events that are available to the senses.

[This is directly opposite to abstract terms, which name things that are not available to the senses.]

Examples of concrete terms include spoon, table, velvet eye patch, nose ring, sinus mask, green, hot, walking.



# Concrete examples

We use concrete examples to aid our memory or explain more complex ideas.

You will grasp the concept better if you link it to a familiar simpler words.

<https://www.youtube.com/watch?v=7wF0ICBMh9Y>

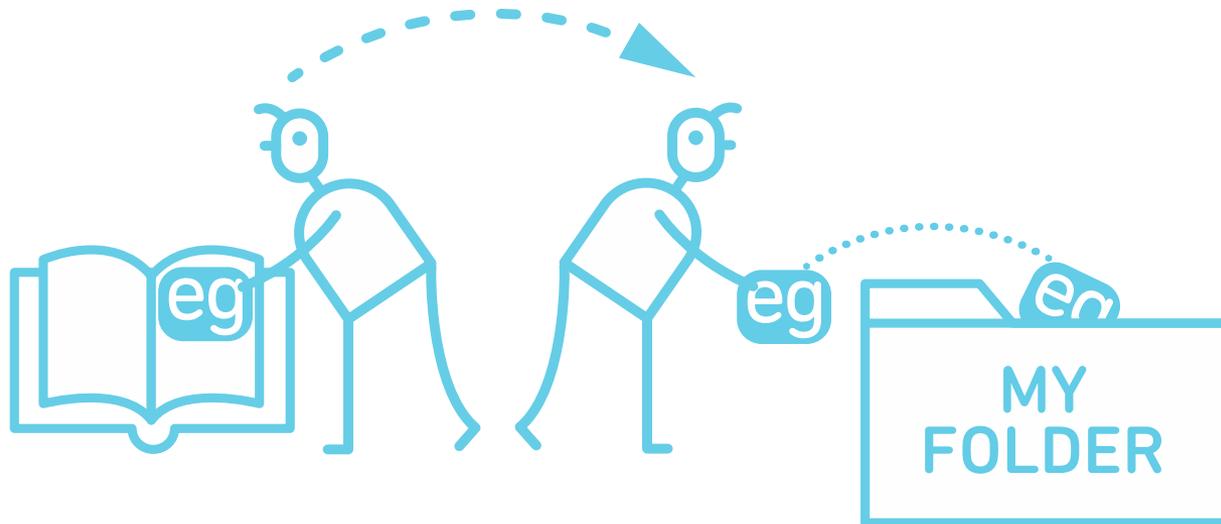




# Concrete Examples

## HOW TO DO IT

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





# Concrete Examples

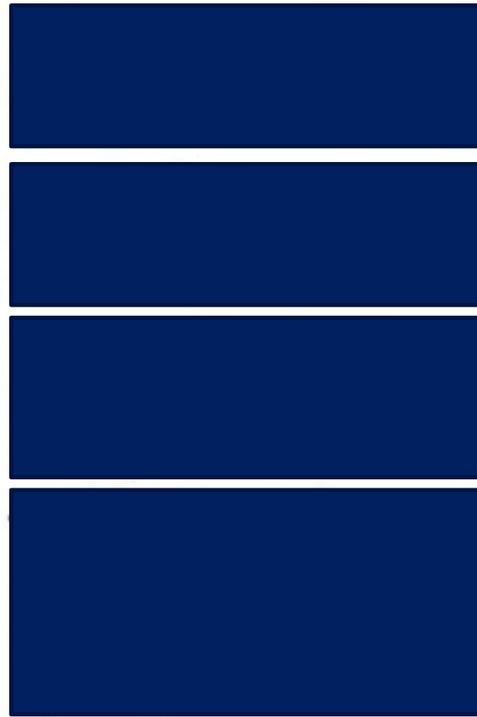
## HOW TO DO IT

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



# In 4 steps move from abstract to concrete

Abstract  
↑ produce

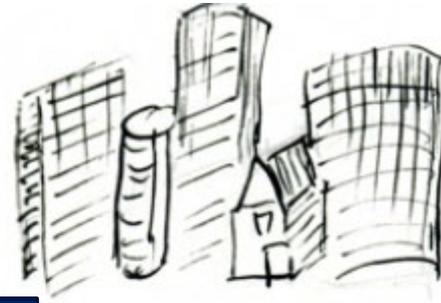


↓  
Concrete



This example has only 3 steps can you add the 4<sup>th</sup> step ?

Abstract  
buildings



Concrete



# Concrete and abstract nouns

- A **concrete noun** names a person, place, or thing that can be perceived by one or more of the five senses (smell, sight, taste, touch, or hearing).
- An **abstract noun** names an idea, a feeling, a quality, or a characteristic and cannot be perceived by any of the five senses.



Select abstract nouns to match the concrete nouns  
( how many did you get the same as mine ? )

## Concrete Nouns

- Student
- Fireman
  - Cat
  - Pen
- Mobile phone

## Abstract Nouns

- Clever
- Courage
- Loyalty
- Articulate
- Convenience



# Guess the abstract word

## Strength

- power, might, force, vigor, brawn, energy, nerve, vitality, sinews, muscle, backbone, physique, stoutness, health, toughness, sturdiness, hardiness, robustness, soundness, durability.

## Beauty

- Attractive, cute, drop-dead, fair, fetching, good, good-looking, goodly, gorgeous, handsome, knockout, likely, lovely, lovesome, pretty, ravishing, stunning, taking.



# abstract noun game

## The Rules

1. Two teams ( each containing at least a pair of students ) play against each other.
2. On the team to go first, one person thinks of an abstract noun ( a feeling, idea or quality)
3. The person acts it out by using a mime (props may be used) and their partner has 5 chances to guess the abstract noun that they are miming. The other team can not guess.
4. If it is guessed in 5 chances, that team gets 2 points.
5. If it is not guessed, it is passed to the other team who get 2 guesses and if it is correct, they score 1 point.
6. Second team go. Play the game until a team reaching 10 points



## Task 6 – 3 minutes



### Spot the Abstract Noun

Underline, circle or highlight the **abstract nouns** in the following sentences:

1. *The sight of her friend filled Sara with happiness.*
2. *The London Olympics were a great success.*
3. *Ben thought of a brilliant idea for his story.*
4. *The blue team were filled with hope as more pupils won their races.*
5. *Lucy found the courage to admit that she was responsible for the broken window.*



# 5 minute concrete example task

## Find the concrete example/abstract words



### Spot the Abstract Noun

Underline, circle or highlight the **abstract nouns** in the following sentences:

- 1. The sight of her friend filled Sara with happiness.*
- 2. The London Olympics were a great success.*
- 3. Ben thought of a brilliant idea for his story.*
- 4. The blue team were filled with hope as more pupils won their races.*
- 5. Lucy found the courage to admit that she was responsible for the broken window.*



# 5 minute concrete example task

## Find concrete example/abstract words



### Check Your Understanding

How did you do? Give yourself one mark for each correctly identified abstract noun.

1. *The sight of her friend filled Sara with **happiness**.*
2. *The London Olympics were a great **success**.*
3. *Ben thought of a brilliant **idea** for his story.*
4. *The blue team were filled with **hope** as more pupils won their races.*
5. *Lucy found the **courage** to admit that she was responsible for the broken window.*

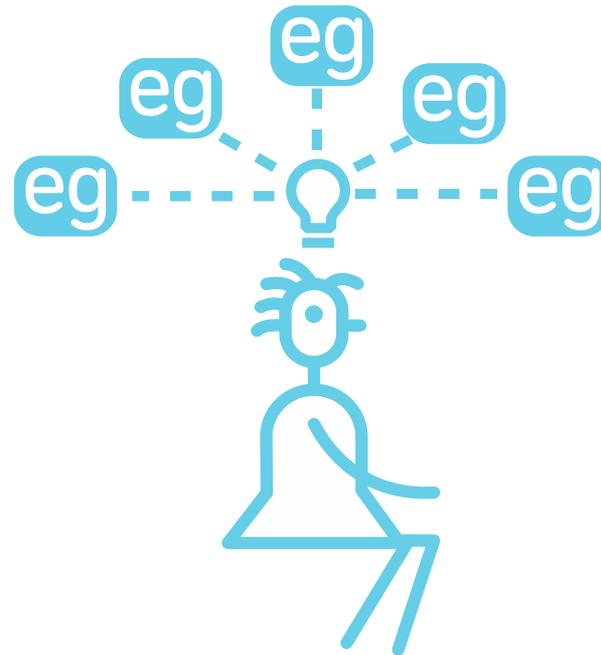




# Concrete Examples

HOLD ON!

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





# Concrete Examples

## RESEARCH

Read more about concrete examples as a study strategy

- Use concrete examples

<http://www.learningscientists.org/blog/2016/8/25-1>

- 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



# GA Student

## Six strategies to help you learn dual coding

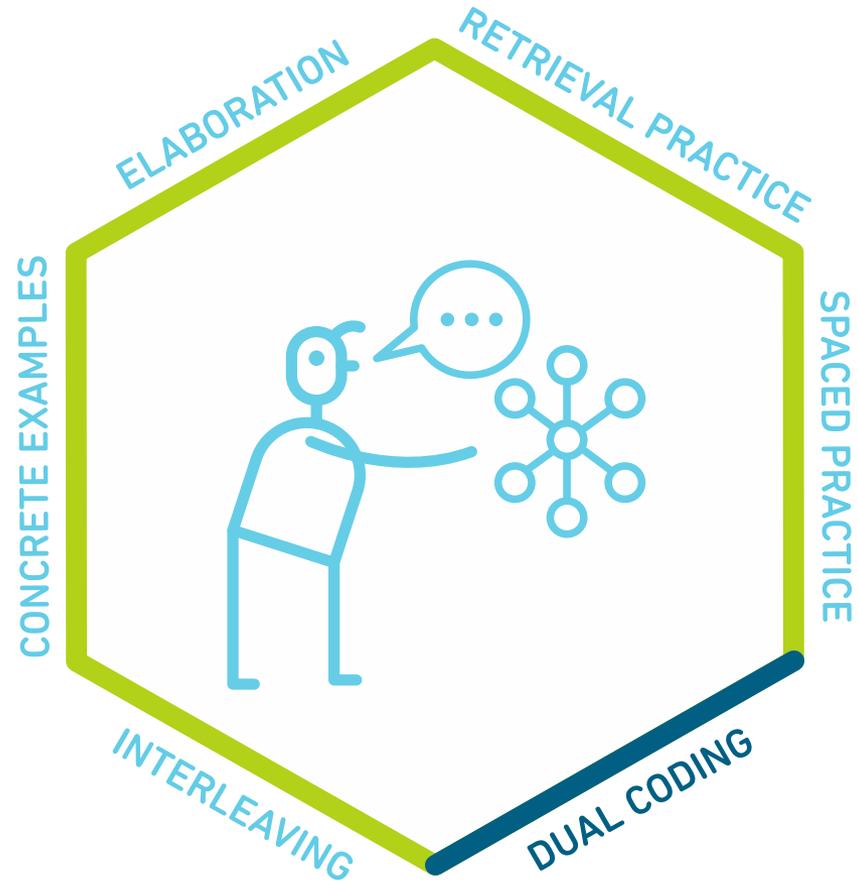




LEARN TO STUDY USING...

# Dual Coding

COMBINE WORDS AND VISUALS



# Write down as many words as you can remember from the list in the last session

1.....

6.....

2.....

7.....

3.....

8.....

4.....

9.....

5.....

10.....

How did you get on ?

Did you get them all ?

Did your partner ?

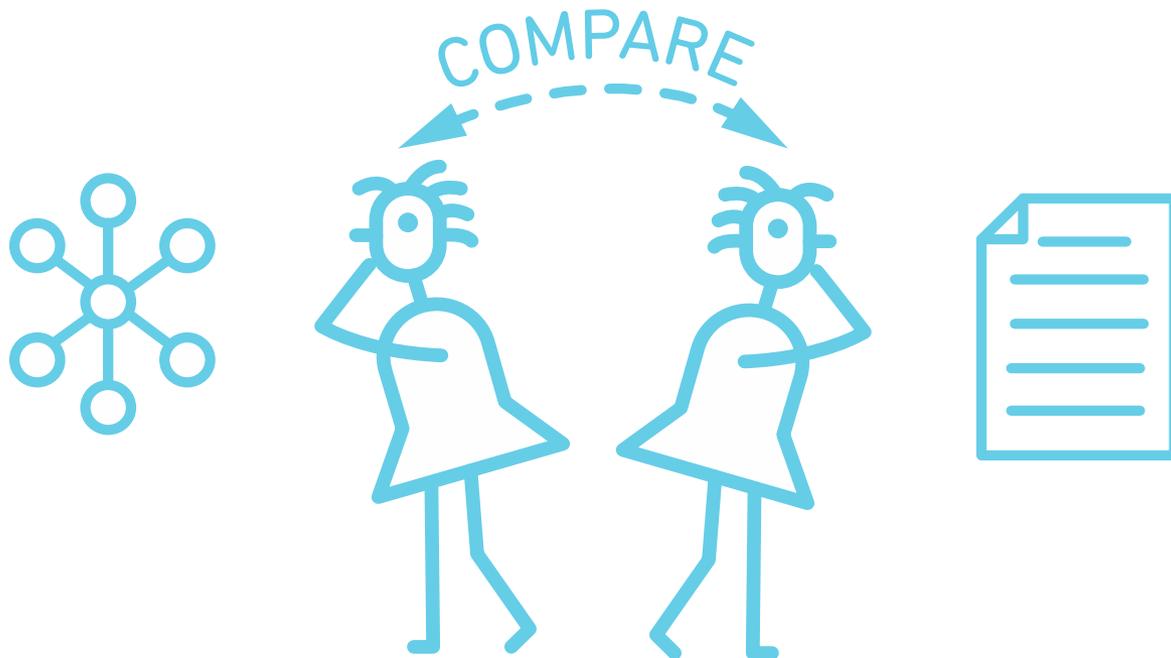




# Dual Coding

## HOW TO DO IT

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



<https://www.youtube.com/watch?v=6xCZ4XnkpCc>

# Assertion



a statement that you strongly believe is true

# Collide



to come together with great force

# Consent



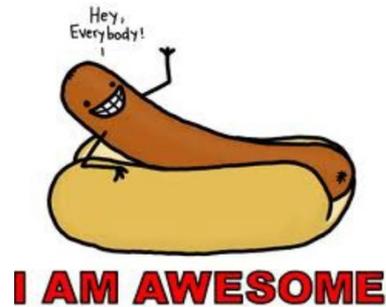
permission or agreement

# Eloquent



fluent or persuasive speaking or writing

# Esteem



to regard highly; a highly favorable opinion or judgement

# Gross



disgusting

# Mirth



gladness and merriment usually accompanied by laughter

# Old-fashioned



not modern

# Quench



to satisfy

# Memorise



to state again; to cause to remember

# Dual coding

Dual coding is the process of combining verbal materials with visual materials. There are many ways to visually represent material, such as with **infographics, timelines, cartoon strips, diagrams, and graphic organizers.**

When you have the same information in two formats - words and visuals - it gives you two ways of remembering the information later on. Combining these visuals with words is an effective way to study .

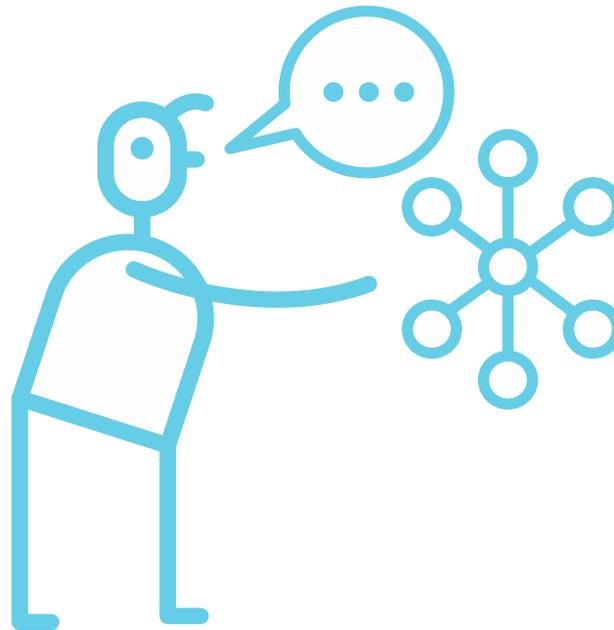




# Dual Coding

## HOW TO DO IT

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

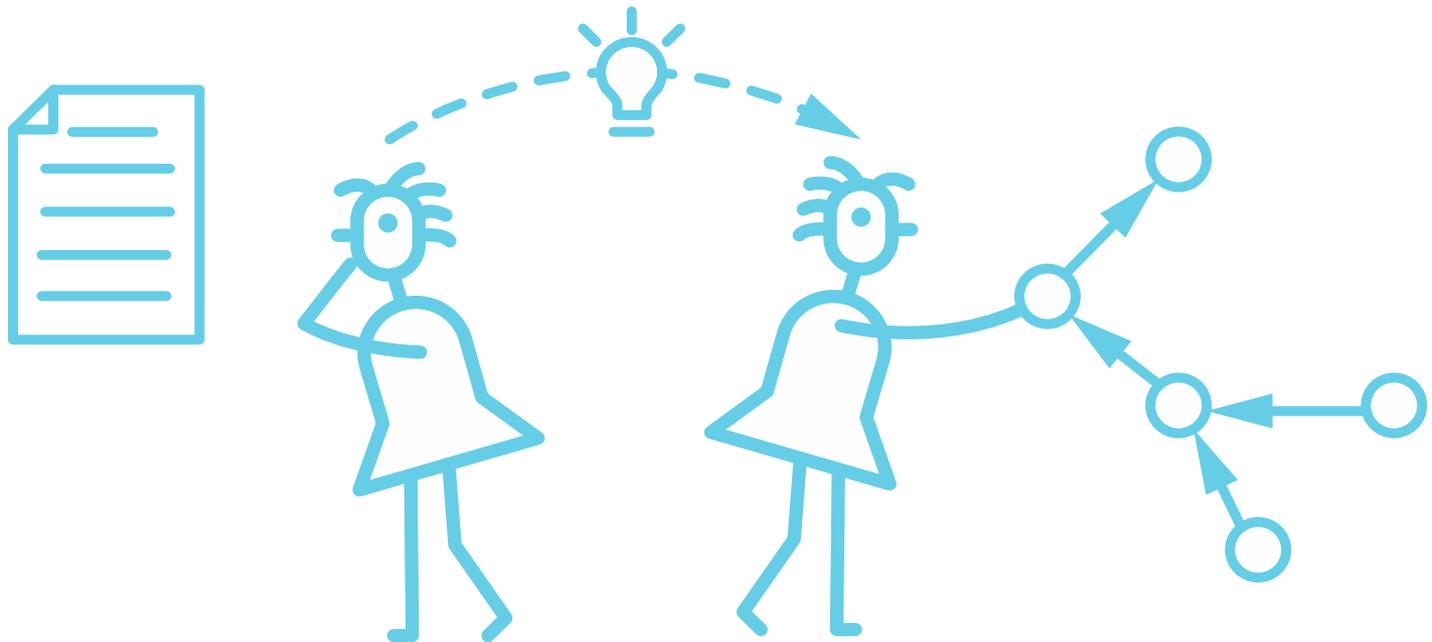




# Dual Coding

## HOW TO DO IT

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



# Infographic of how to make a healthy salad in a jar

Look at the picture on the next slide for a minute or two.

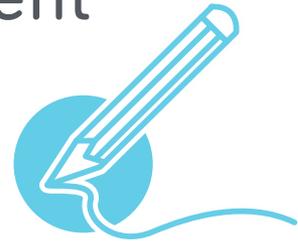




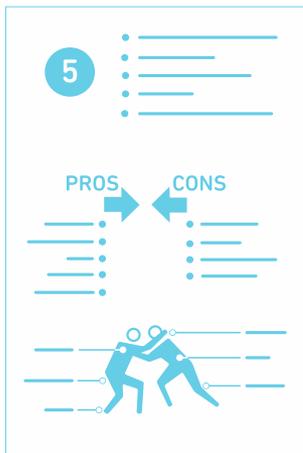
# Dual Coding

HOLD ON!

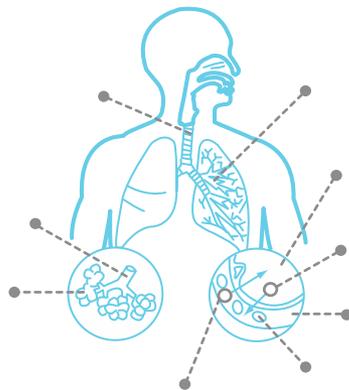
Try to come up with different ways to represent the information visually, for example an infographic, a timeline, a cartoon strip, or a diagram of parts that work together.



INFOGRAPHIC



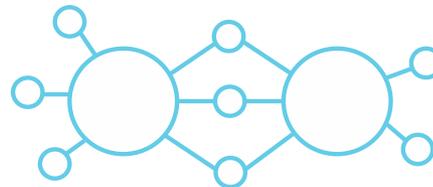
DIAGRAM



CARTOON STRIP



GRAPHIC ORGANIZER



TIMELINE

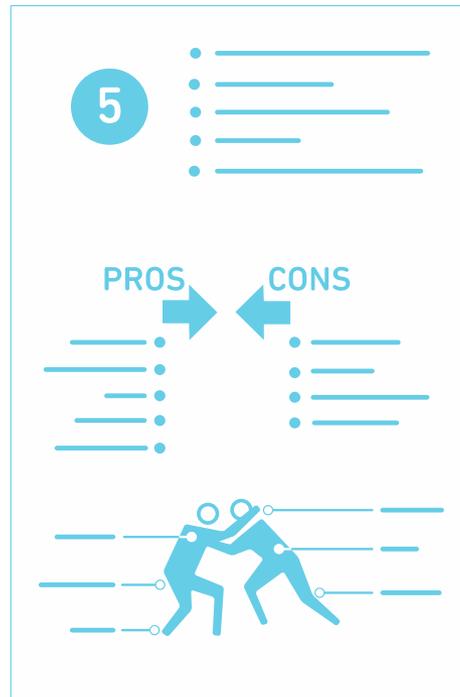
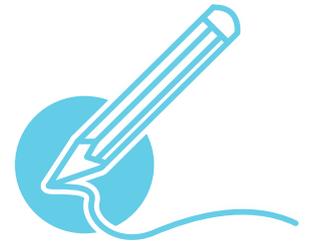




# Dual Coding

HOLD ON!

Try to come up with different ways to represent the information visually, for example...  
**an infographic.**

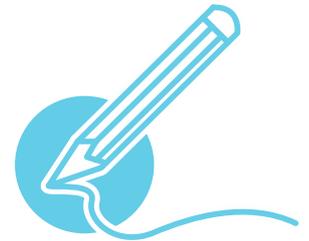




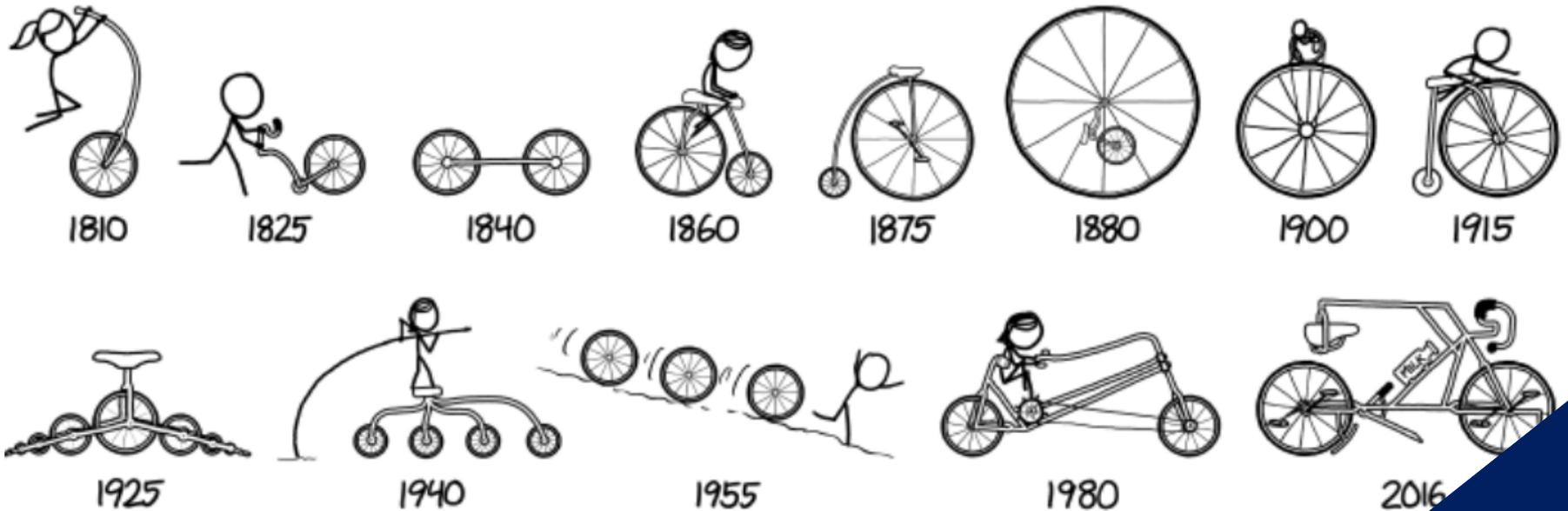
# Dual Coding

**HOLD ON!**

Try to come up with different ways to represent the information visually, for example...  
**a timeline.**



# Timeline of bicycle design

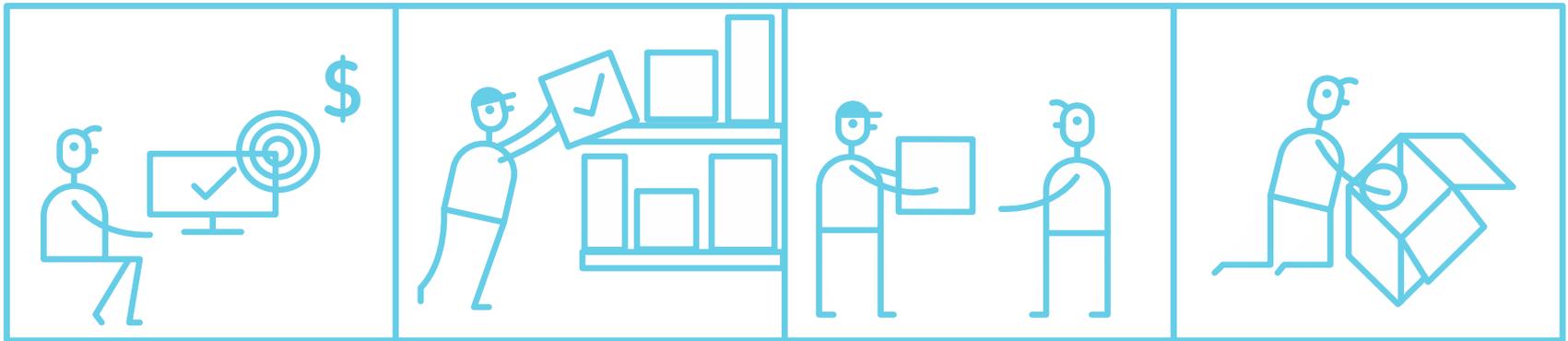
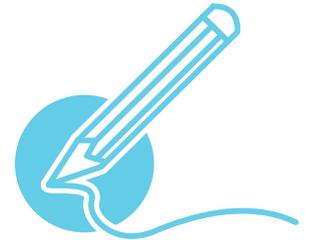




# Dual Coding

HOLD ON!

Try to come up with different ways to represent the information visually, for example...  
**a cartoon strip.**



# Create own infographic- a cartoon

- Look at the example of a cartoon strip below
- Can you create your own ? Make sure you add all the important information.



Golden-crowned Sparrow



Acorn Woodpecker



Brown Creeper



MacGillivray's Warbler



Common Yellowthroat



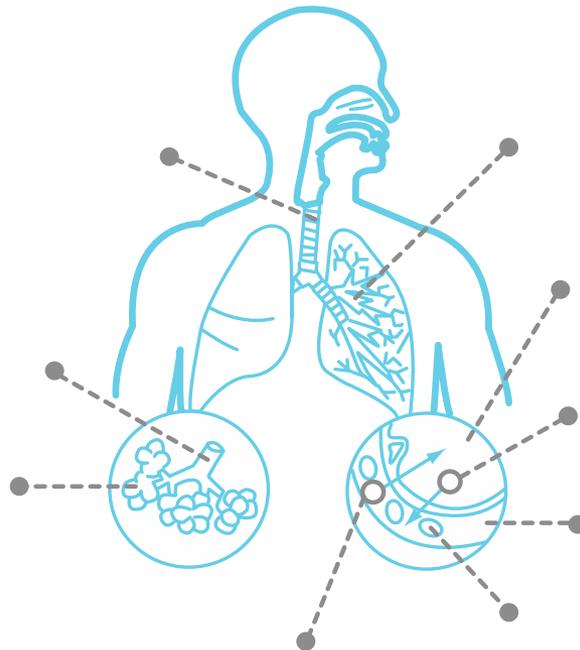
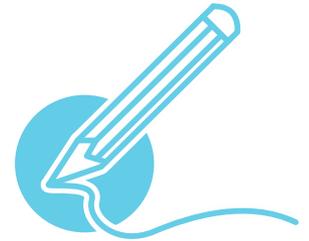
California Quail



# Dual Coding

HOLD ON!

Try to come up with different ways to represent the information visually, for example...  
a **diagram** of parts that work together.

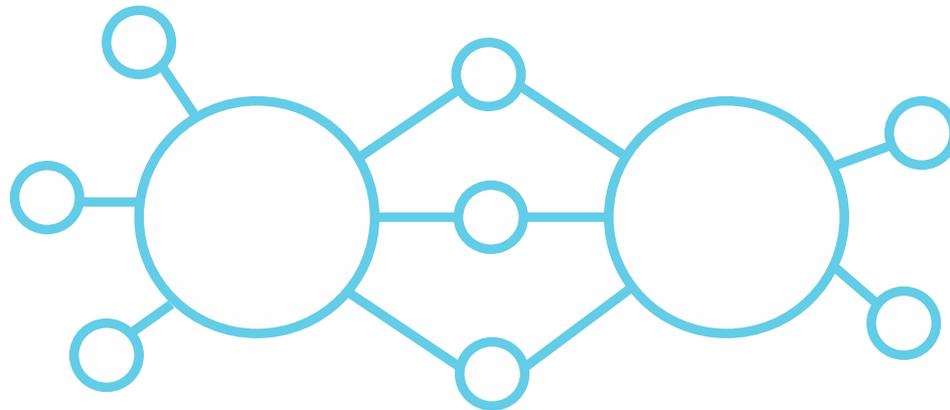
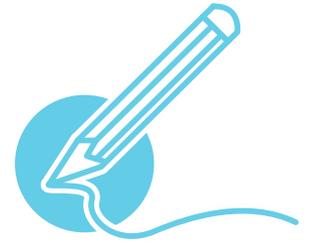




# Dual Coding

HOLD ON!

Try to come up with different ways to represent the information visually, for example...  
**a graphic organizer.**

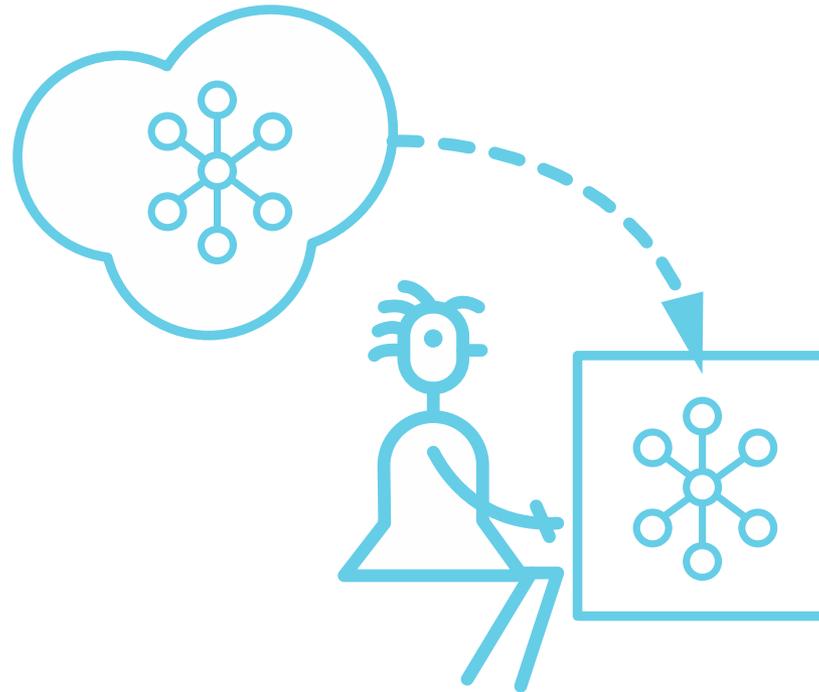




# Dual Coding

HOLD ON!

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





# Dual Coding

## RESEARCH

Read more about dual coding as a study strategy

- Use dual coding

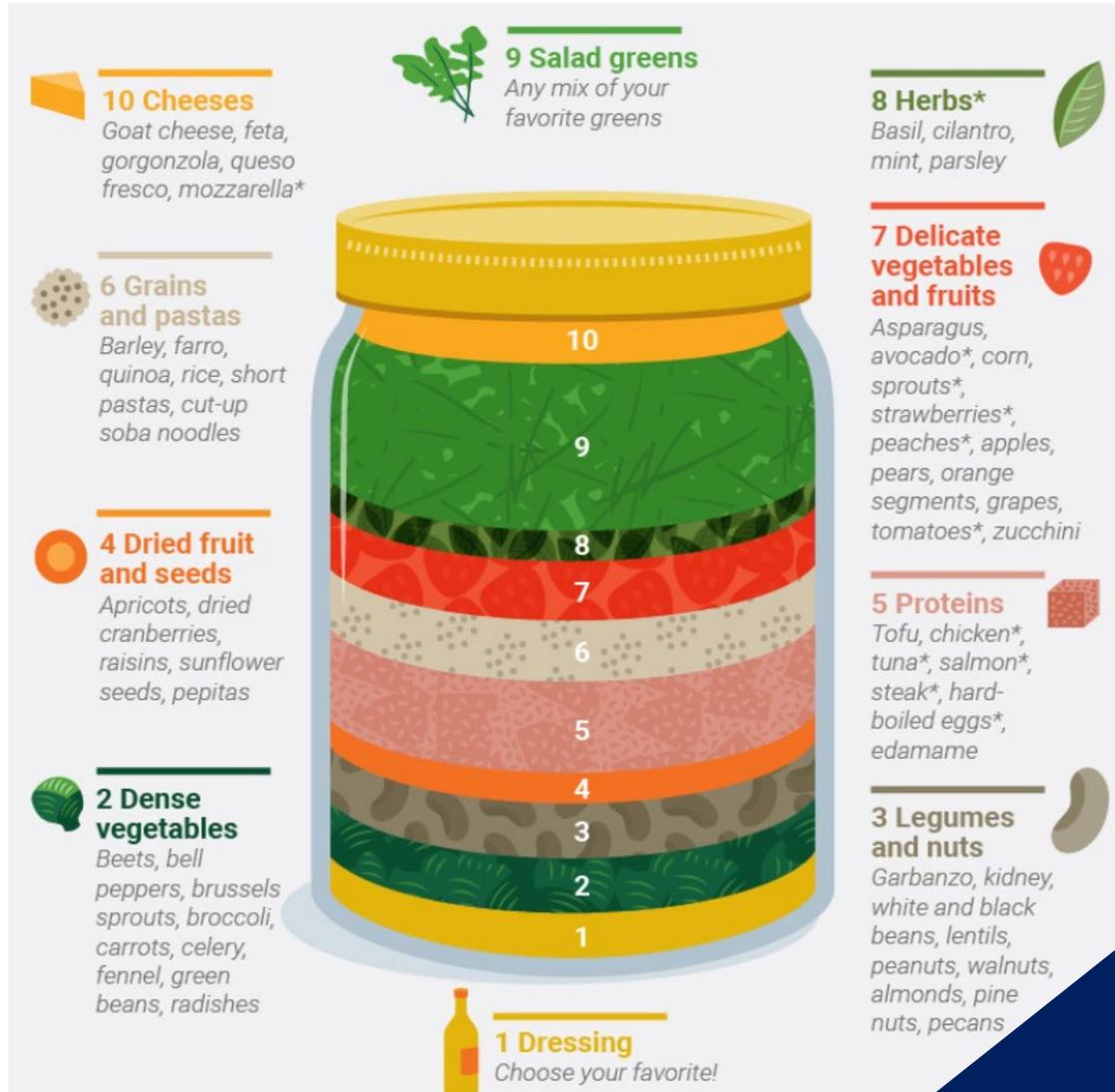
<http://www.learningscientists.org/blog/2016/9/1-1>

- Use dual coding

<http://www.learningscientists.org/blog/2016/5/12-1>

- 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.

# Infographic of how to make a healthy salad in a jar



# Write all the ingredients you can remember from the salad jar

- Write down the ingredients of salad you remember.
- Did you get all ten ?
- Give yourself a score of 1 for each item.
- How did you get on ?
- Who had a higher score your or your partner ?



# GA Student

## Six strategies to help you learn

# Elaboration



What we have learnt so far

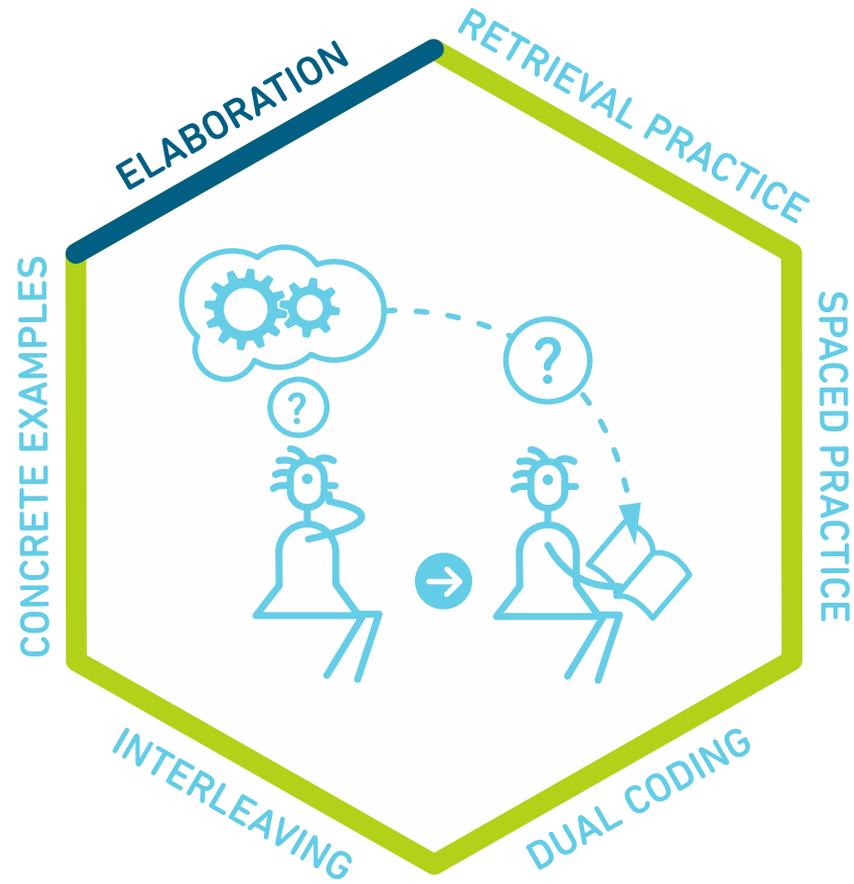




LEARN TO STUDY USING...

# Elaboration

EXPLAIN AND DESCRIBE IDEAS WITH MANY DETAILS



# Elaboration

Studying using elaboration means explaining and describing ideas with many details. Elaboration also involves making connections among ideas you are trying to learn and connecting the material to your own experiences, memories, and day-to-day life

<https://www.youtube.com/watch?v=gQRzW24KrDc>

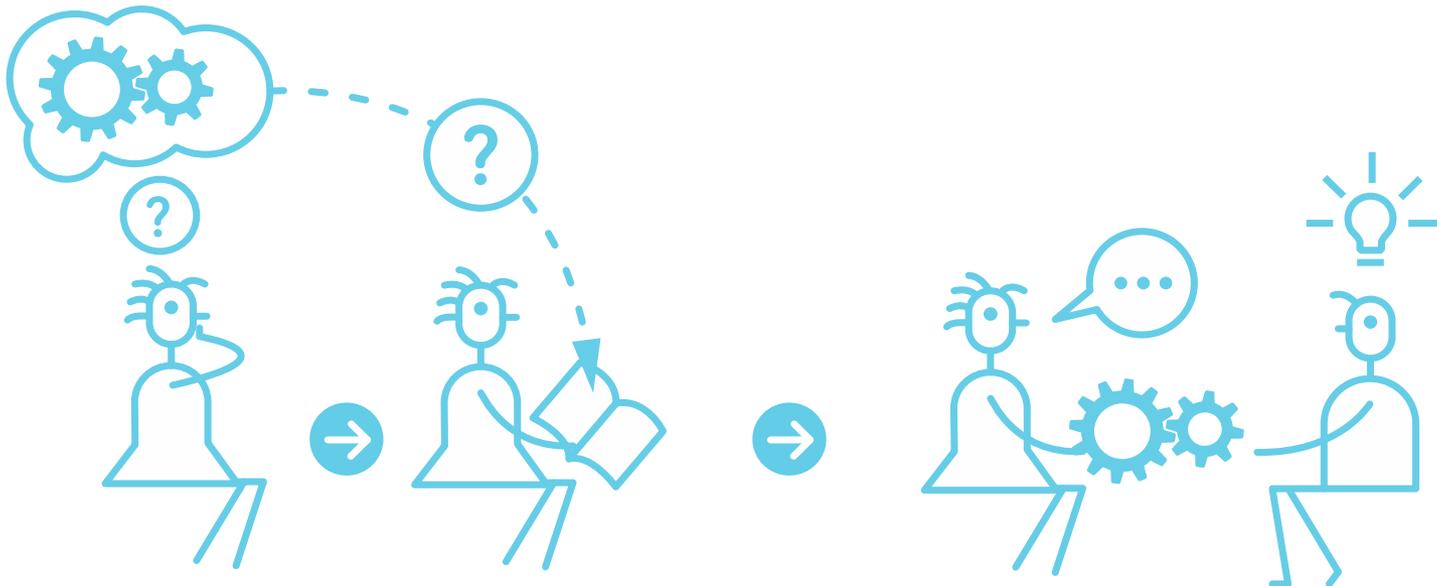




# Elaboration

## HOW TO DO IT

Ask yourself questions while you are studying about how things work and why, and then find the answers in your class materials and discuss them with your classmates.

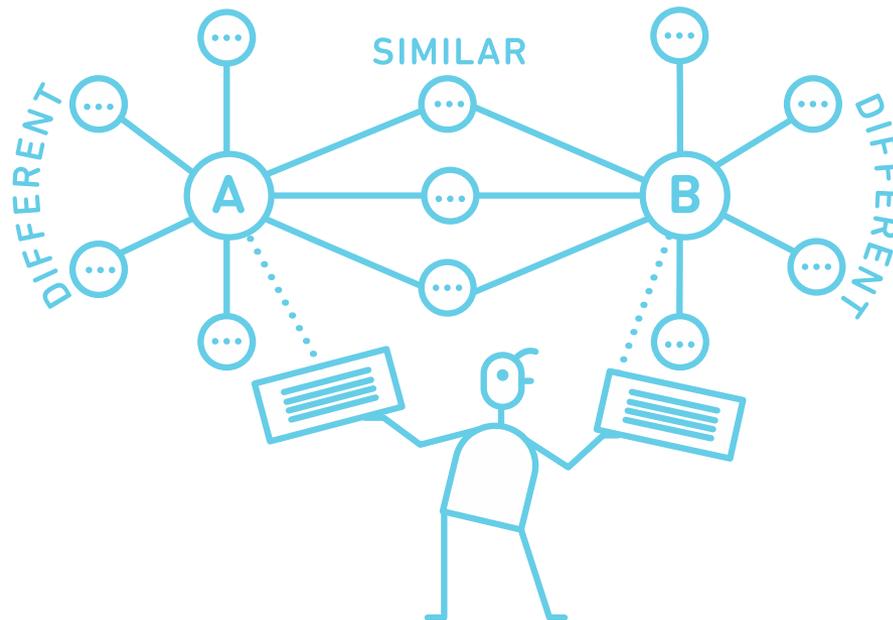




# Elaboration

## HOW TO DO IT

As you elaborate, make connections between different ideas to explain how they work together. Take two ideas and think of ways they are similar and different.





# Elaboration

HOLD ON!

Make sure the way you are explaining and describing an idea is accurate. Don't overextend the elaborations, and always check your class materials or ask your teacher.



# Compare Two Different Things Through Simile or Metaphor

A **simile** is a phrase that compares two things using the words like or as.

- He is as excited as a puppy.
- The girl is like a spinning top.

Both of these phrases compare a person to another object.

A **metaphor**, on the other hand, compares two things by saying that one is the other.

- They boy was an excited puppy running around the room.
- The girl was a spinning top unable to stay still.

1. Write two similes and two metaphors for a favorite characters from literature or television shows.
2. Let your partner guess who that is.

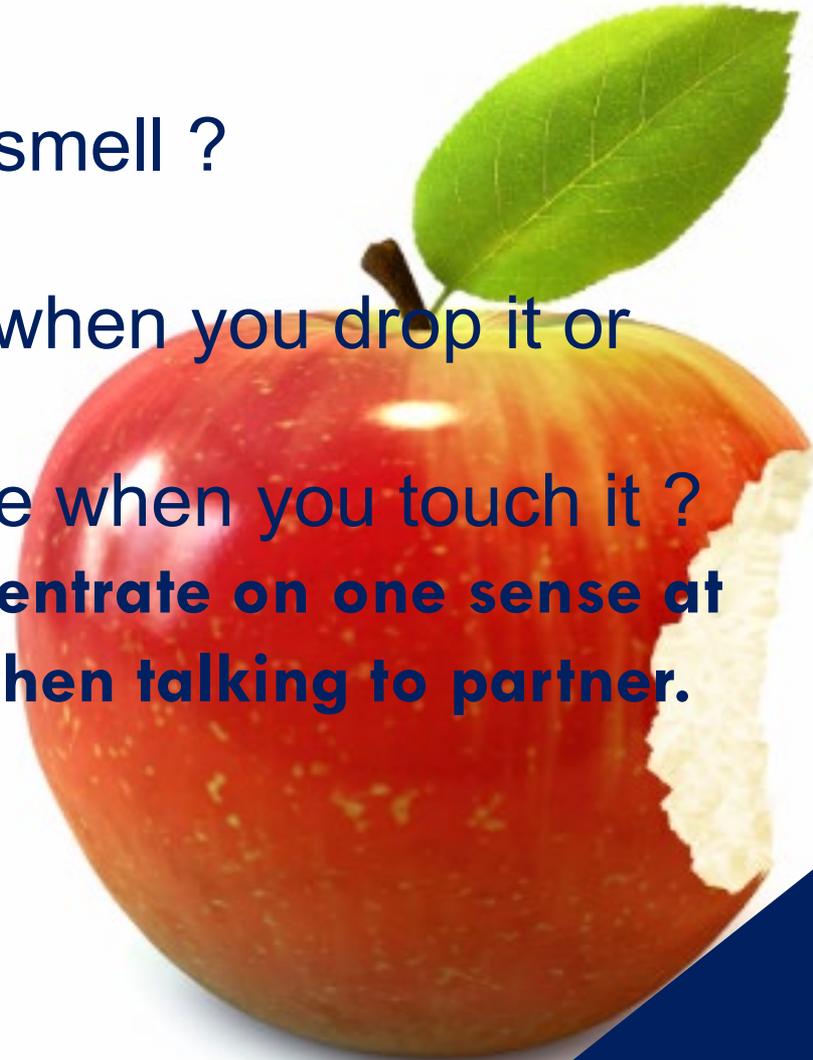
©Moomin Characters™ 2018  
©Gufy Animation 2018



# Describe how apple feels, smells, tastes, sounds or looks

1. Describe the apple
2. How does the apple smell ?
3. How does it taste ?
4. What does it sound when you drop it or bite it ?
5. What does it feel like when you touch it ?

**Make sure that you concentrate on one sense at the time. Take in turns when talking to partner.**

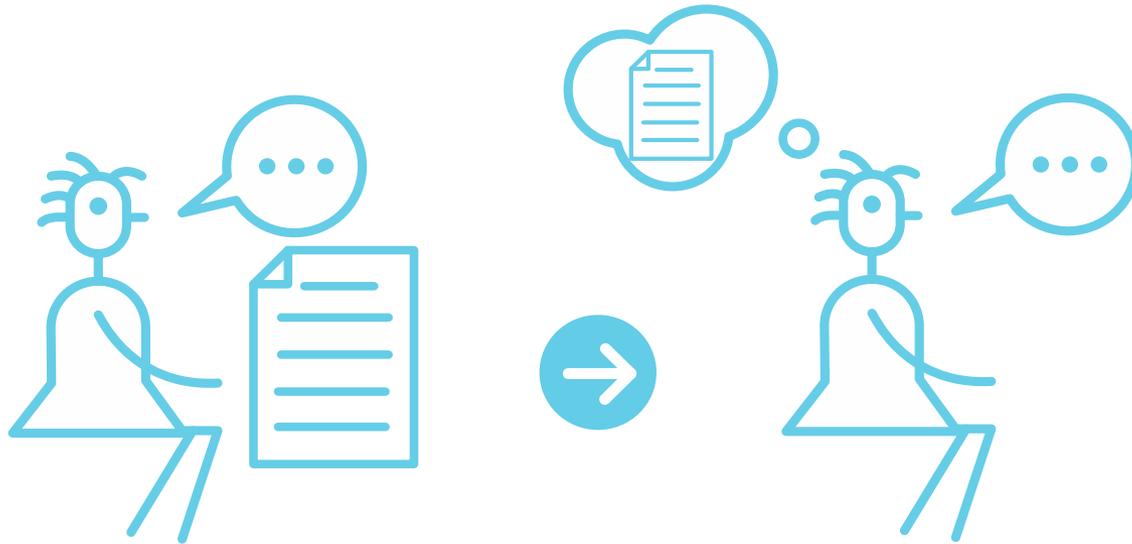




# Elaboration

**HOLD ON!**

Work your way up so that you can describe and explain without looking at your class materials.



# Describe Choose an item. how it feels, smells, tastes, sounds or looks

1. Describe the it ?
2. How does it smell ?
3. How does it taste ?
4. What does it sound like ?
5. What does it feel like ?

When finished, exchange work and try to guess what the other person's object might be.

Were you right? Did the writer give detailed description for each of the five senses?





# Elaboration

## RESEARCH

Read more about elaboration as a study strategy

- Use elaborative interrogation

<http://www.learningscientists.org/blog/2016/7/7-1>

- Elaboration and Active Learning

<http://www.learningscientists.org/blog/2016/9/8-1>

- McDaniel, M. A., & Donnelly, C. M. (1996). Learning with analogy and elaborative interrogation. *Journal of Educational Psychology, 88*, 508-519.

- Wong, B. Y. L. (1985). Self-questioning instructional research: A review. *Review of Educational Research, 55*, 227-268.



# GA Student

## Six strategies to help you learn

### Interleaving





LEARN TO STUDY USING...

# Interleaving

SWITCH BETWEEN IDEAS WHILE YOU STUDY



# Class discussion 2 min

Imagine you are sitting down to a study session. You have an exam coming up, and all sorts of different topics to study for it.

How should you study them - one at a time, or switching between them?



# Interleaving

Here's what the research suggests:

You shouldn't study one idea, topic, or type of problem for too long.

Instead, you should change it up often. Interleaving is harder but pays off in a long run.

This strategy is particularly useful if you're studying something that involves problem solving - like math or physics.

Interleaving can help you:  
choose the correct strategy to solve a problem  
see the links, similarities,  
and differences between ideas



# What is Interleaving?

Interleaving study technique is about what **you do with your time** when revising



# Video - Interleaving





# Interleaving

## HOW TO DO IT

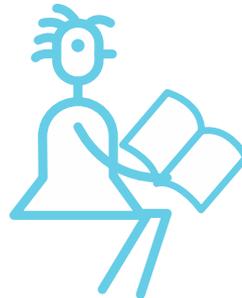
Go back over the ideas again in different orders to strengthen your understanding.

TOPICS  
A B C



STUDY  
SESSION  
1

TOPICS  
C B A



STUDY  
SESSION  
2

TOPICS  
A C B



STUDY  
SESSION  
3

Have you ever dedicated a whole day to revise for one subject?

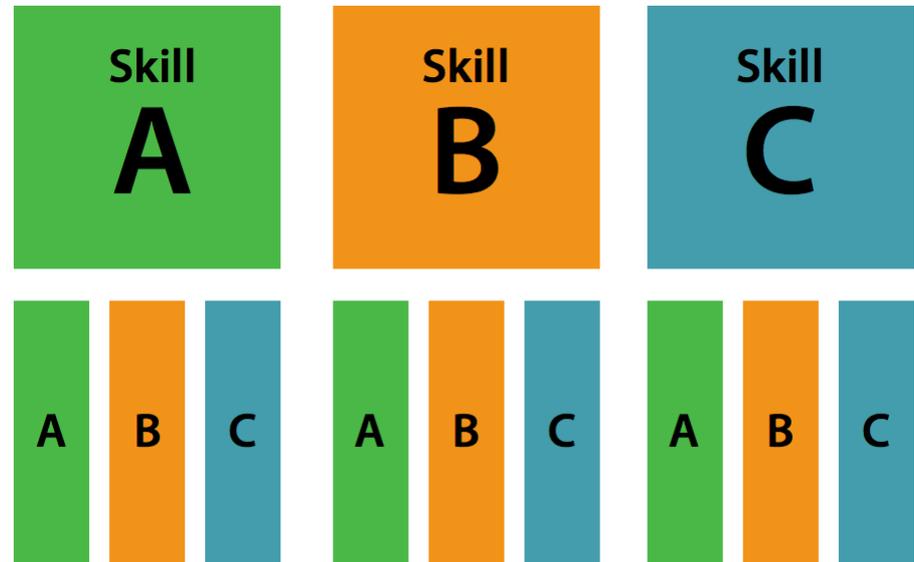
And then another day to revise for a different subject?

This is known as '**blocking**'

# How does interleaving work?

Learning is spread over time rather than concentrating on narrow topics one after the other

## Blocking vs Interleaving



# The evidence to show it works...

- A study examined the performance of maths students who revised using blocking compared to those who used interleaving.
- Students who used interleaving **performed better** on the examination if the examination was more than one day away.





# Interleaving

HOLD ON!

While it's good to switch between ideas, don't switch too often, or spend too little time on any one idea; you need to make sure you understand them.



# What are the benefits of Interleaving?

Your brain is continually changing focus and attempting to find different responses to bring into your short term memory.



# What are the benefits of interleaving?

Each time you revise information it strengthens your **memory recall**.

By revisiting material from each topic **several times, in short bursts**, you can increase the amount you **remember in the exams**.





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Try to remember the following combination of letters:

**y-m-r-e-o-m.**

In this case each letter constitutes one item, so you are being required to remember six items at once.

# Interleaving



Now try to remember the following combination of letters:

**m-e-m-o-r-y**

In this case you are still required to remember the very same six items. However, because you have a schema in your long-term memory for the word 'memory', you are able to chunk the letters into just one item. Now your working memory is freed up to remember other items.

# Interleaving

## Be Organised

Distributed revision and interleaving of topics (switching between topics) is proven to have high impact on memory

Create yourself a revision plan, not just for Geography, include all of your subjects.

Mon	Tues	Wed	Thurs	Fri
Geog	Textiles	English Lit	English Lan	Comp Sci
Maths	French	Bio	Chem	Phys

Then break down the subject into topics, try interleaving the topics so you switch between topics rather than blocking each topic and not coming back to it for some time.

## How to use in Geography

Break the papers into topic blocks. Rather than covering each topic once and moving onto the next try to interleave them like below.

### Blocked

Coasts	Rivers	Ecosystems	Hazards
--------	--------	------------	---------

### Interleaved

1 Hour				1 Hour				1 Hour				1 Hour			
Coasts	Rivers	Ecosystems	Hazards	Ecosystems	Hazards	Coasts	Rivers	Rivers	Ecosystems	Hazards	Coasts	Hazards	Coasts	Rivers	Ecosystems



# Interleaving

**HOLD ON!**

Interleaving will feel harder than studying the same thing for a long time. But don't worry - this is actually helpful to your learning!



**AAA BBB CCC**  
TOPICS



**ACB CBA BCA**  
TOPICS



# Interleaving

## RESEARCH

Read more about interleaving as a study strategy

- Use interleaving

<http://www.learningscientists.org/blog/2016/8/11-1>

- Interleaving in practice

<http://www.learningscientists.org/blog/2016/3/28/weekly-digest-3>

- Rohrer, D. (2012). Interleaving helps students distinguish among similar concepts. *Educational Psychology Review*, 24, 355-367.



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## Six strategies to help you learn

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# Video - Interleaving



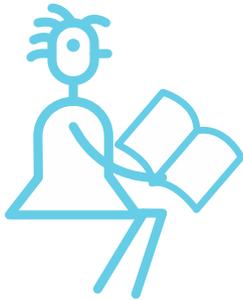


# Interleaving

## HOW TO DO IT

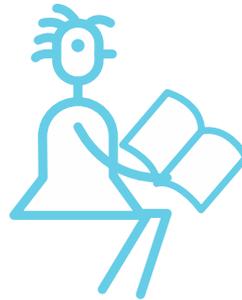
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SESSION  
1

TOPICS  
C B A



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SESSION  
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A C B



STUDY  
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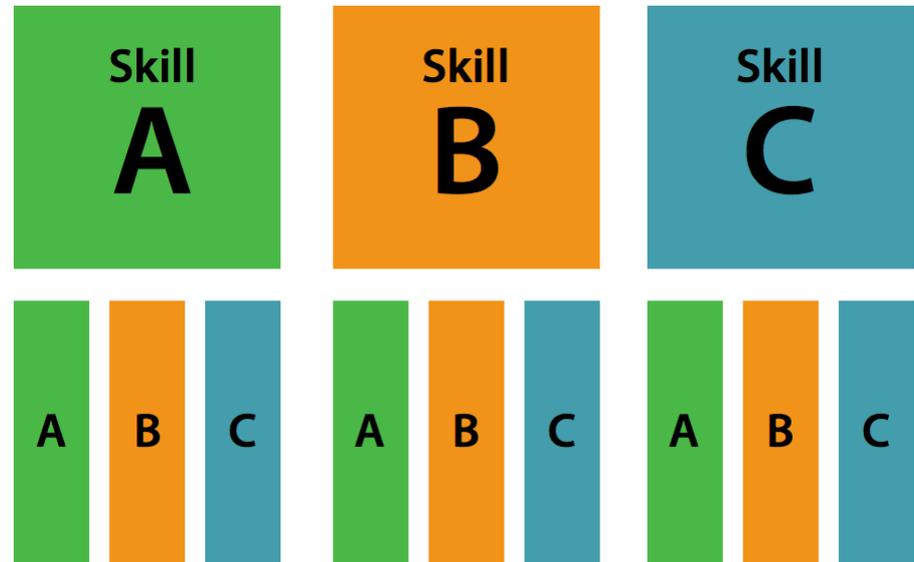
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**AAA BBB CCC**  
TOPICS



**ACB CBA BCA**  
TOPICS

A stick figure running, with a starburst above its head, representing a person who is tired or struggling.



# Interleaving

## RESEARCH

Read more about interleaving as a study strategy

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- Rohrer, D. (2012). Interleaving helps students distinguish among similar concepts. *Educational Psychology Review*, 24, 355-367.



# GA Students

## Six strategies to help you learn remembering- retrieval



# Ask students these three questions:

---

- How do you study?
- *Why* do you study this way?
- Does it work?

# Remembering-Retrieval

“Retrieval practice” is a learning strategy where we focus on getting information out. Through calling information to mind, our memory for that information is strengthened and forgetting is less likely to occur. Retrieval practice is a powerful strategy for improving test results.



# Retrieval practice

- You can **create flashcards**, but make sure that you really use them to practice retrieval (bring to mind what you think is on the other side!) rather than peeking.
- Even simpler than practice questions and flashcards, you can just grab a piece of paper and **write down everything you know on a topic**. All you need is pen and paper – so no excuses!!



# How to make flashcards

1. Ensure that the flashcards have a **question or key term** on one side and the **answer or definition** on the other.
  - The flashcard must work the memory.
  - If flashcards only contain notes then no **retrieval practice** will be happening.



# How to make flashcards

2. Ensure the right questions and knowledge are on the cards.
3. Keep information as short as possible.
4. Write clearly. You should be able to read what you wrote at a very quick glance.



Interregnum



The name when England was a Republic under Oliver Cromwell's rule and had no monarch?

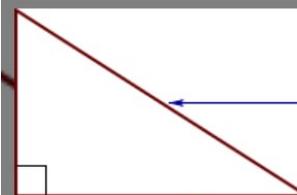
# How to make flashcards

5. Use different **coloured cards or pens** to categorise your flashcards. For example, use a different colour for each subject or topic. This can help your brain to categorise information better.

6. Make your flashcards as soon as you've learnt the topic in class.



hypotenuse



the side of a right triangle opposite the right angle (longest side)

# Being smart when using flashcards

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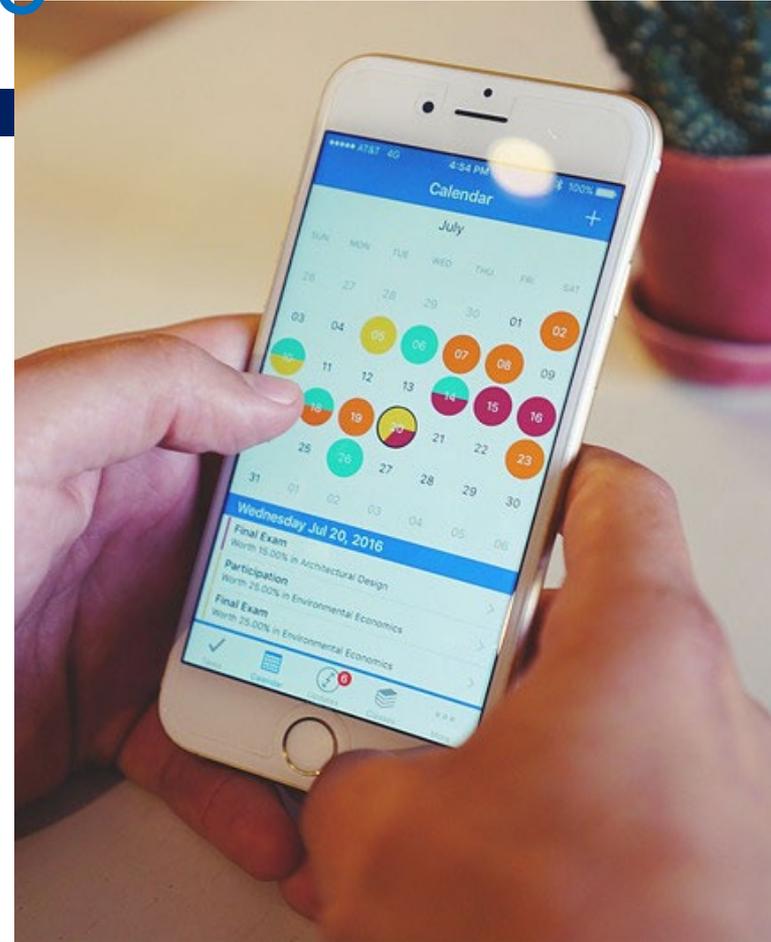
Studies have found that it's more effective to **review a whole stack of cards in one sitting** rather than to carry them around with you and glance at them every so often.

Flashcards are not an effective method for last-minute cramming!

---

# Being smart when using flashcards

- **Use spaced repetition** - Review your cards at specific, increasing intervals: for example on Day 1, Day 2, Day 4, Day 8 and so on.
- Spaced repetition works because it activates your long-term memory, while leaving small breaks in-between studying uses your short-term memory.



# Being smart when using flashcards

- Make sure you have a **'thinking pause'** after picking one up and reading the question, then turn the card over to read the information.
- Once you get an answer right using your flashcards – **DO NOT DISCARD IT!** You need to keep **repeating the questions** even if you get it right multiple times otherwise it will fall off your memory.



# Being smart when using flashcards

- Try writing the answer or definition in **your own words** and **giving examples**. This will help your learning and recall.
- Try **'interleaving'**. Once you have several decks of flashcards for different subjects and topics, try mixing them up. This will test your knowledge across subjects in a single session. Make sure **you are confident** enough to do this every so often.



# Using a system to revise with flashcards

The **Leitner system** is a well-known and very effective method of using flashcards. It's a form of **spaced repetition** that help you study the cards you don't know more often than the cards you already know well.

In the 1970s, a German populariser of science, Sebastian Leitner, developed the method.

# Leitner System – The Method

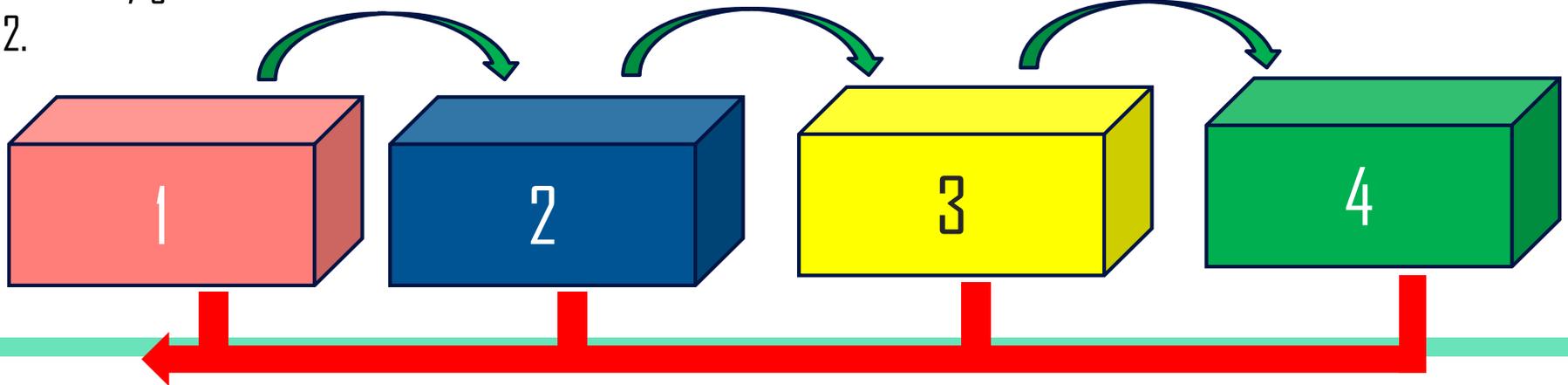
All flash cards start off in Box / Stack 1.

As you review the cards, each card you answer correctly goes into Box 2.

If you give the wrong answer the card stays in box 1.

When you review cards in Box 2, if you still get it right you move the card to box 3 and so on until all cards are in Box 4.

If you get a card wrong in any box, it goes back to Box 1.



<https://www.youtube.com/watch?v=6S2LJIAydyg>

<https://www.youtube.com/watch?v=uvF1XuseZFE>

# Leitner System – The Key

The key is that the cards you know less well are reviewed more frequently than the cards in the higher boxes.

You now must choose the frequency at which you review each box.

Box 1: Every day

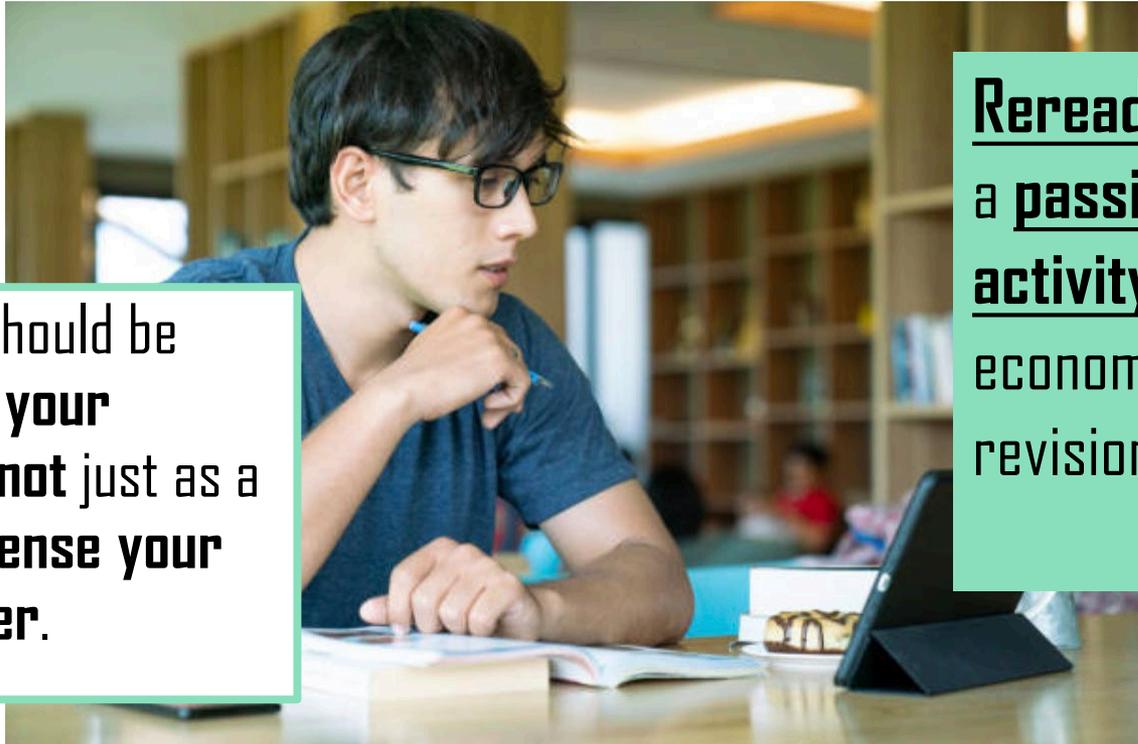
Box 2: Every 2 days

Box 3: Every 3 days

Box 4: Every 4 days

# Remember...

Flashcards should be used to **test your knowledge**, not just as a way to **condense your notes further**.



**Rereading** notes is a **passive learning activity** so is not an economical use of your revision time.



# Study Skills

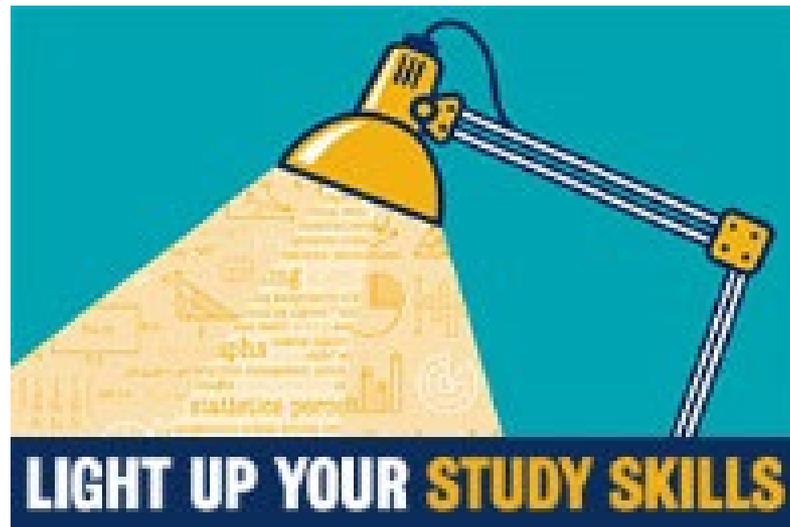


# What are study skills?

- Skills to improve the way you learn

Why are they important?

Task: Write down 3 ways in which you think learning how to study could help you



# What are study skills?

Why are they important?

- **Study skills** can help you **manage your life** by allowing you to be prepared for lessons, getting your work done on time, and allowing you to know what you want to achieve from your subjects
- It allows you to have enough time to do things



# What are study skills?

Why are they important?

- Study skills allows you to **succeed in different subjects** for example:
- **Languages** you need good speaking and listening skills and a strong memory to learn grammar and vocabulary.
- **Science** you need to be able to problem solve and analyse
- **English** you need to be able to evaluate and write fluently with well constructed text



# What are study skills?

Why are they important?

- Study skills help you in **exams** with good revision and memory skills it will help you revise effectively.
- It can help your time management and organisation so you spend enough time revising all your subjects
- It can help your motivation skills to get you revising and keeping you going



# What are study skills?

- **Skills to improve the way you learn**

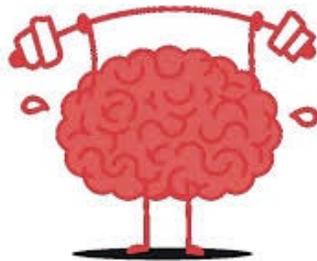
Over the weeks we are going to look at different study skills such as:

- **Motivation** – skills to get you started and keep you going
- **Organisation** – skills to make you more productive and successful
- **Time management** – getting to grips with your time which can help to relieve stress and save you time in the long run



# What are study skills?

- **Finding answers** – skills for effective research, reading and note taking
- **Revising** – skills for exam prep
- **Remembering** – How to make your memory work for you
- **Writing** – focus on successful writing for exams



# What are study skills?

- **Speaking and listening** – tips and techniques which will cover areas such as listening, note taking, presentations and discussions
- **Learning to learn** – ways which will accelerate your learning and make it more effective



# What are study skills?

## Task:

List your **subjects** and **identify** the study skills that you think will **best** help with your learning



# Learning strategies

Year 10/11

## Six strategies for effective learning



THE LEARNING SCIENTISTS



# Learning strategies

## Retrieval

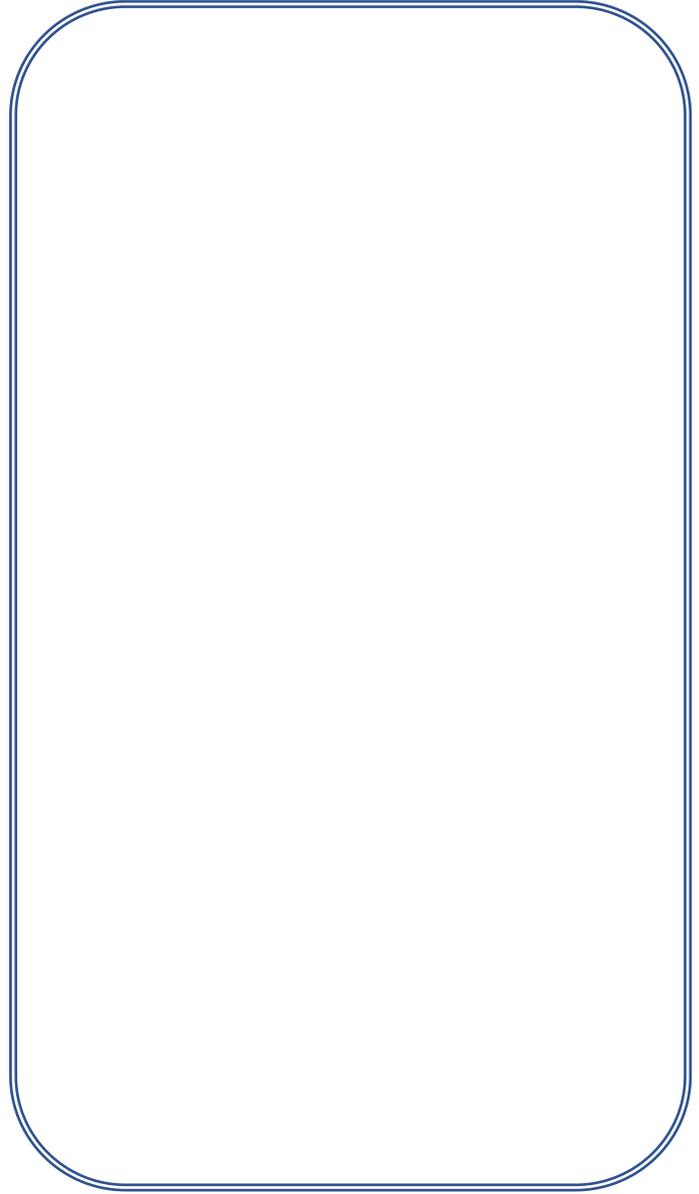
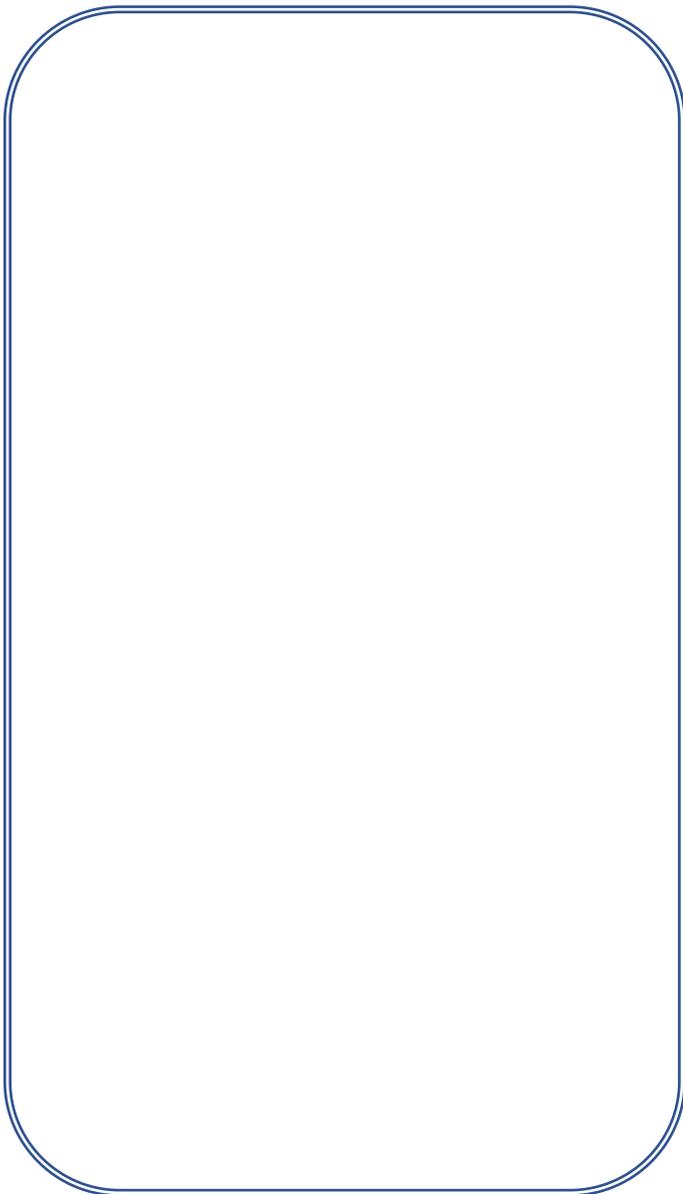
### Design your flashcard/ flashcards

Front

Back

(main concept, question, problem)

(definition, answer, solution)



# Learning strategies

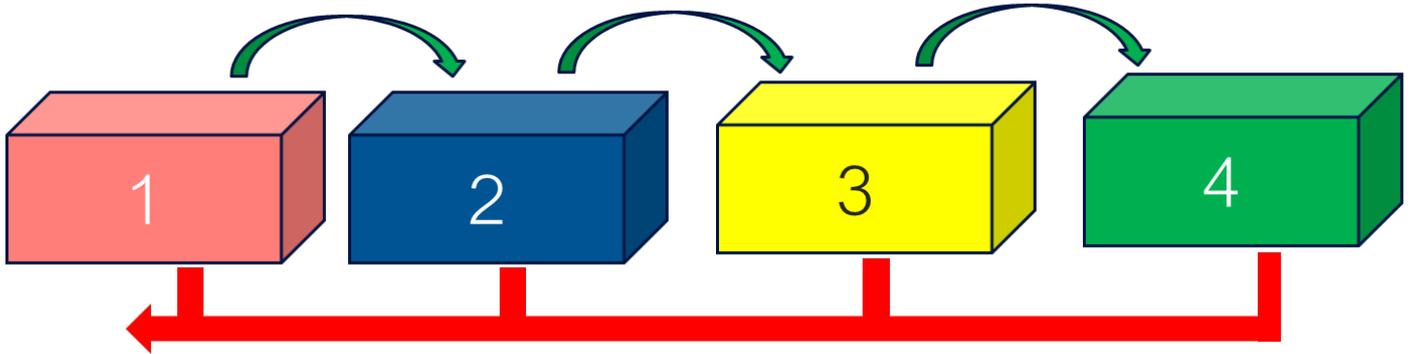
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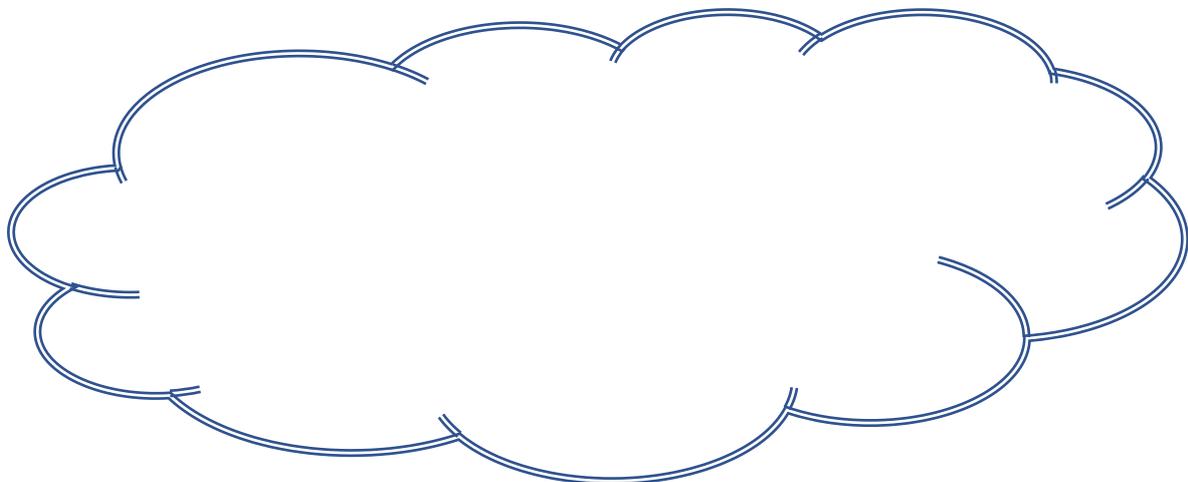
If you get a card wrong in any box, it goes back to Box 1.



Box 1: Every day  
Box 2: Every 2 days  
Box 3: Every 3 days

## Flash forward

Now that you've taken this session, what is one thing you want to remember 10 years from now (and why)?



# Learning strategies

## Spacing

How many words can you recall?

1.....

6.....

2.....

7.....

3.....

8.....

4.....

9.....

5.....

10.....

## How to construct a homework/revision timetable

How many subjects do you have to study for?

1) \_\_\_\_\_

7) \_\_\_\_\_

2) \_\_\_\_\_

8) \_\_\_\_\_

3) \_\_\_\_\_

9) \_\_\_\_\_

4) \_\_\_\_\_

10) \_\_\_\_\_

5) \_\_\_\_\_

11) \_\_\_\_\_

6) \_\_\_\_\_

12) \_\_\_\_\_

# Learning strategies

## Your commitments during the week

Sunday: \_\_\_\_\_

Monday: \_\_\_\_\_

Saturday: \_\_\_\_\_

Tuesday: \_\_\_\_\_

Wednesday: \_\_\_\_\_

Thursday: \_\_\_\_\_

Friday: \_\_\_\_\_

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
16:00							
16:30							
17:00							
17:30							
18:00							
18:30							
19:00							

## Dual coding

How many words can you recall from the previous session on spacing?

1.....

6.....

2.....

7.....

3.....

8.....

4.....

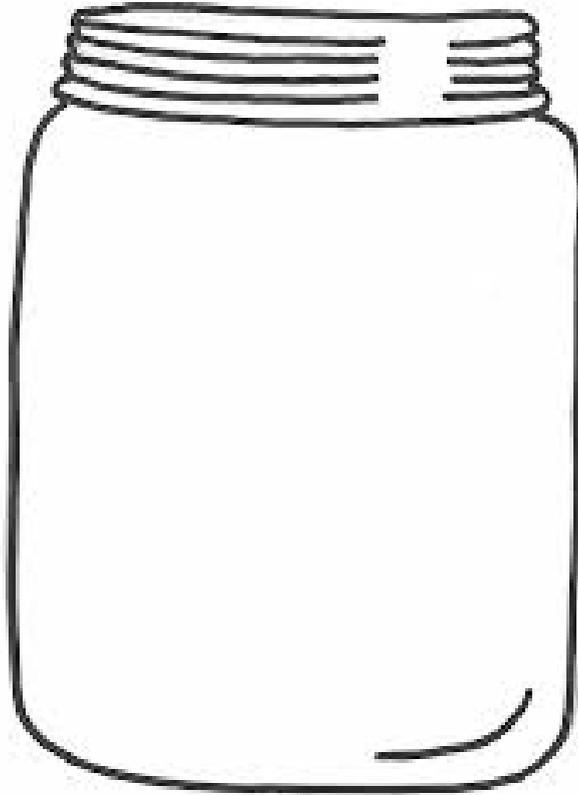
9.....

5.....

10.....

# Learning strategies

In the empty jar below list all the ingredients of the salad jar.  
Can remember them all? (there are 10)

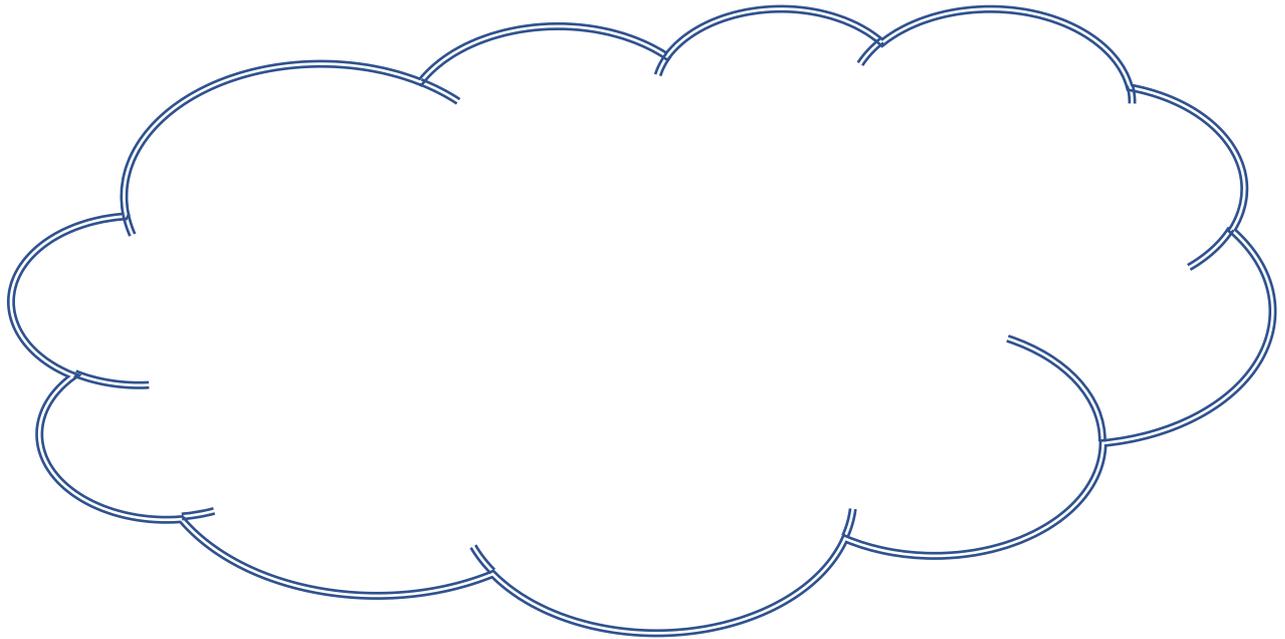


# Learning strategies

## Elaboration

### Compare Two Different Things through Simile or Metaphor

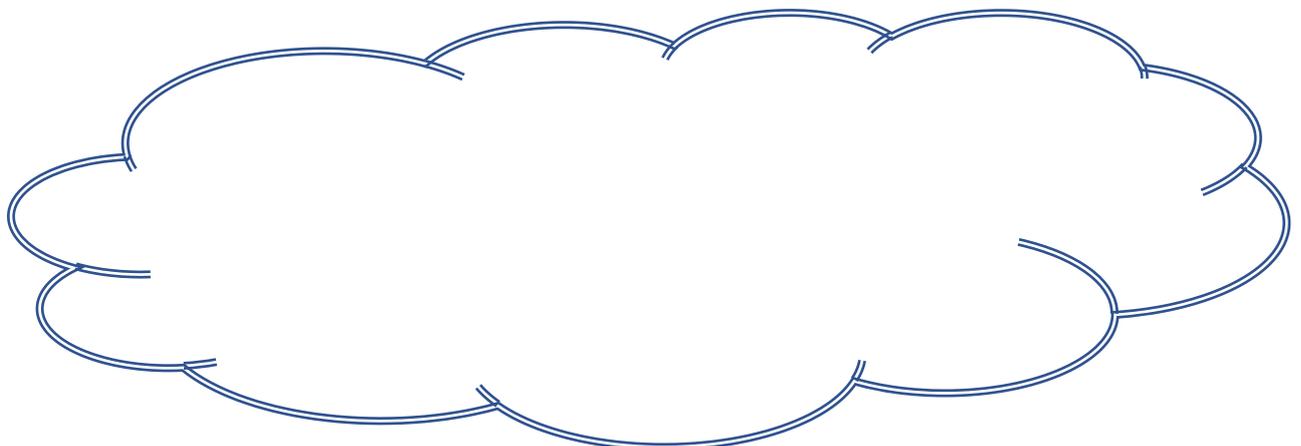
1. Write two similes and two metaphors for a favorite character from literature or television shows.
2. Let your partner guess who that is.



### Describe the apple

1. Describe the apple
2. How does the apple smell?
3. How does it taste?
4. What does it sound when you drop it or bite it?
5. What does it feel like when you touch it?

**Make sure that you concentrate on one sense at the time. Take in turns when talking to partner.**

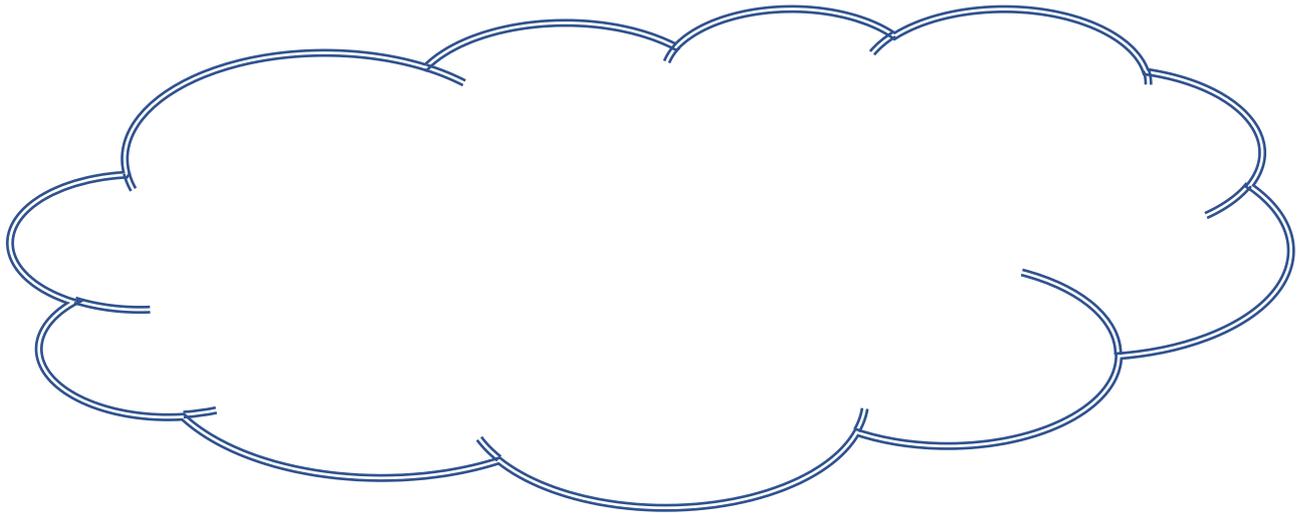


# Learning strategies

## Describe any item

1. Describe it
2. How does it smell?
3. How does it taste?
4. What does it sound when you drop it?
5. What does it feel like when you touch it

When finished, exchange work and try to guess what the other person's object might be. Were you right?



## Concrete examples

In 4 steps move from a word “produce” to statement “The Braeburn apple I had for breakfast”

Produce
The Braeburn apple I had for breakfast

# Learning strategies

In 3 steps move from a word “building” to statement “My friend’s house”

Buildings
Friend’s house

Select abstract nouns to match the concrete nouns  
(how many did you get the same as mine?)

## Concrete nouns

Student -----

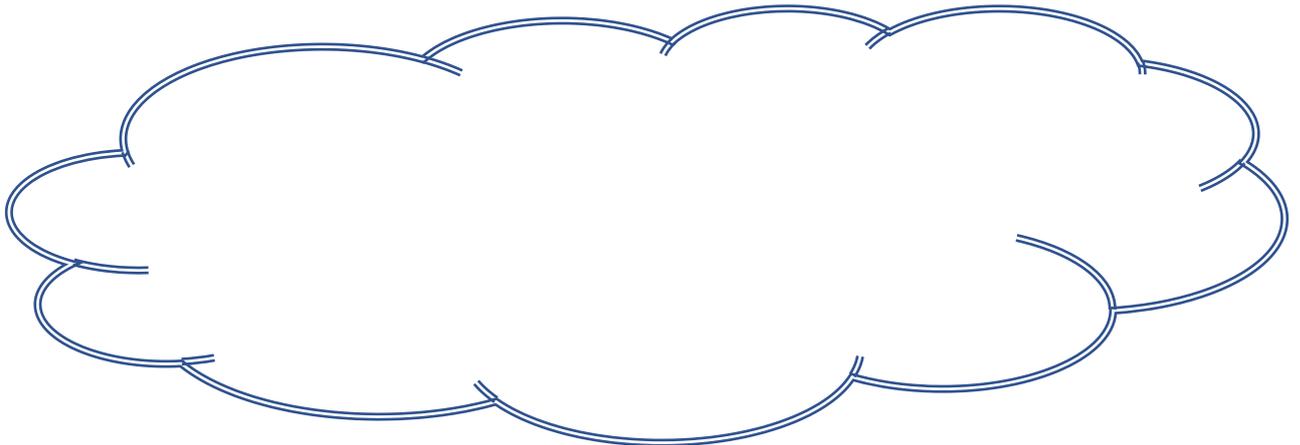
Fireman-----

Cat -----

Pen -----

Mobile phone-----

## Guess the abstract words



Play the game and put your score in the table

Team 1	Team 2

# Learning strategies



# Six Strategies for Effective Learning

[www.learningscientists.org](http://www.learningscientists.org)

In this series, we provide information so students can learn how to study using..



All of these strategies have supporting evidence from cognitive psychology. For each strategy, we explain how to do it, some points to consider, and where to find more information.



LEARN TO STUDY USING...

# Retrieval Practice

PRACTICE BRINGING INFORMATION TO MIND



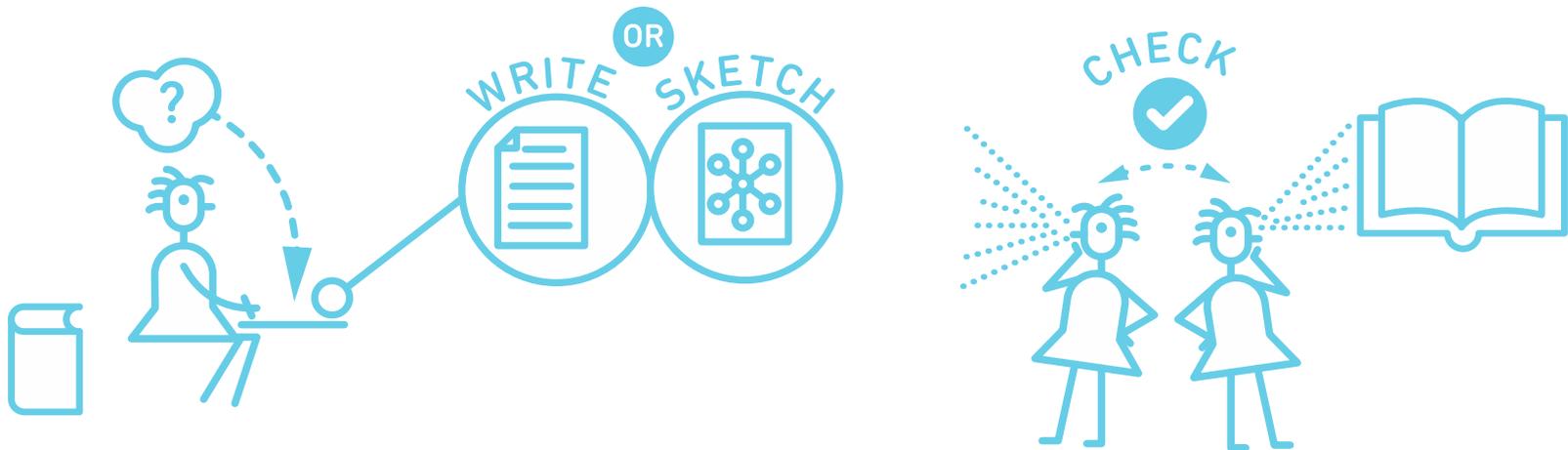
<https://www.youtube.com/watch?v=Pjrqc6UMDKM>



# Retrieval Practice

## 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.

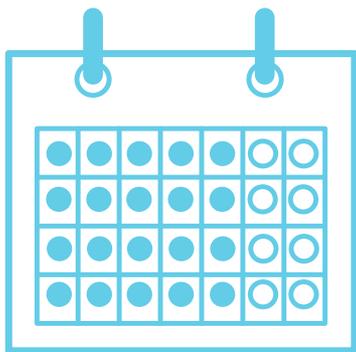




# Retrieval Practice

## HOW TO DO IT

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.

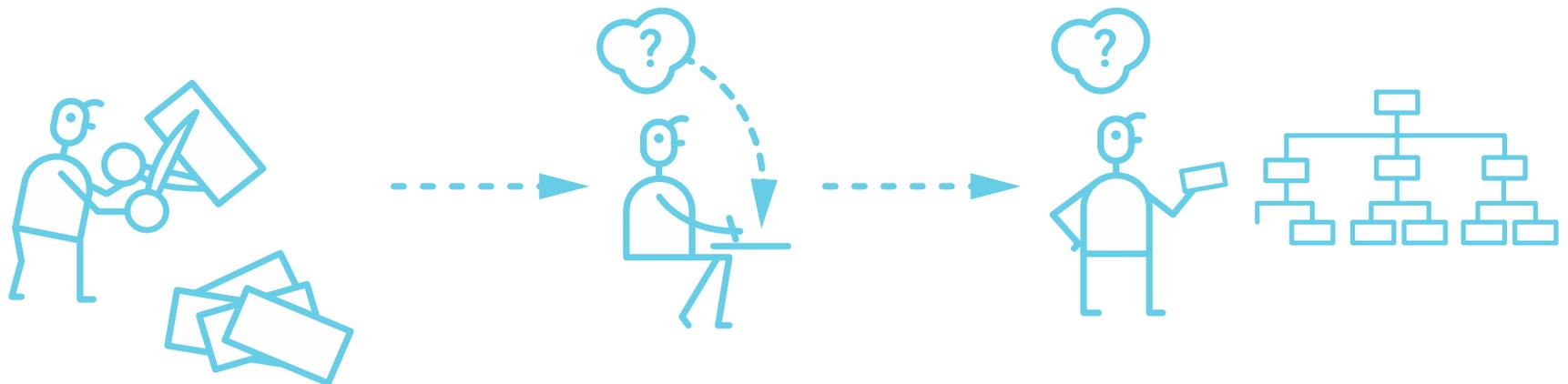




# Retrieval Practice

## HOW TO DO IT

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.

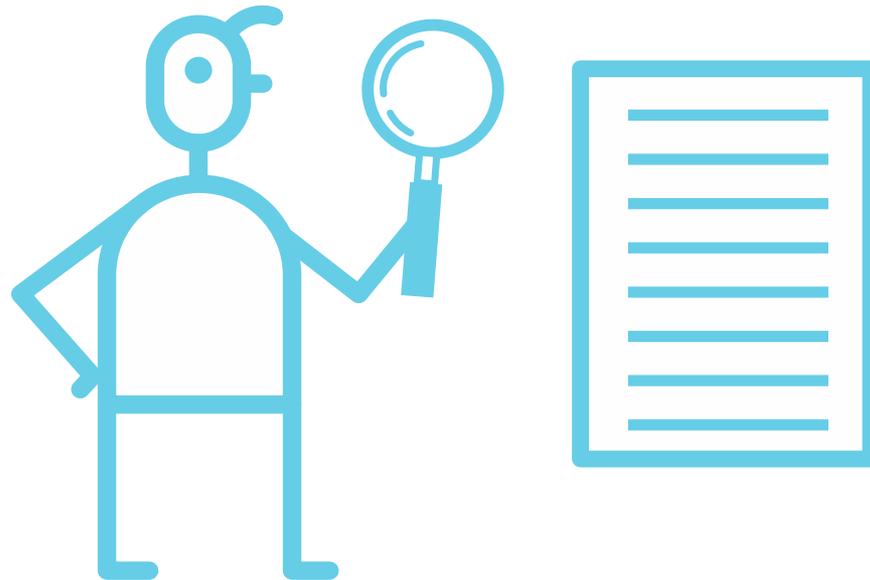




# Retrieval Practice

HOLD ON!

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

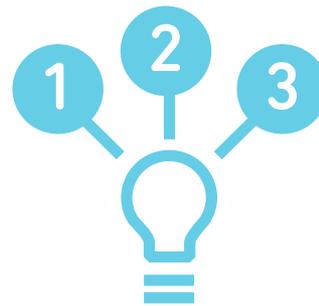




# Retrieval Practice

HOLD ON!

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.

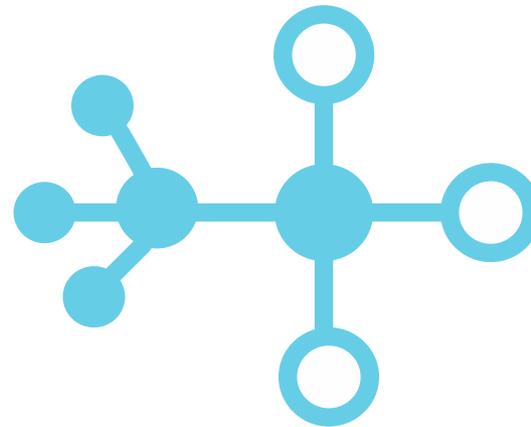
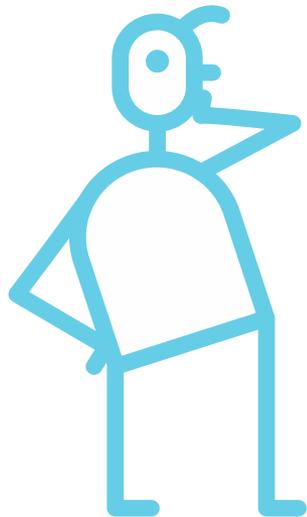




# Retrieval Practice

HOLD ON!

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.





# Retrieval Practice

## RESEARCH

Read more about retrieval practice as a study strategy

- Learning how to Learn: Practicing Retrieval  
<http://www.learningscientists.org/blog/2016/6/23-1>
- Concept Map: What Does Retrieval Practice Do?  
<http://www.learningscientists.org/blog/2016/4/1-1>
- How to Study with Flashcards  
<http://www.learningscientists.org/blog/2016/2/20-1>
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