

# Year 11 Revision Information

18-20 March 2024



1. To consider the methods by which we can self-sabotage revision
2. To dispel some myths about revision
3. To use what we know about memory to help construct a spaced and interleaved revision timetable
4. To share the most effective revision strategies

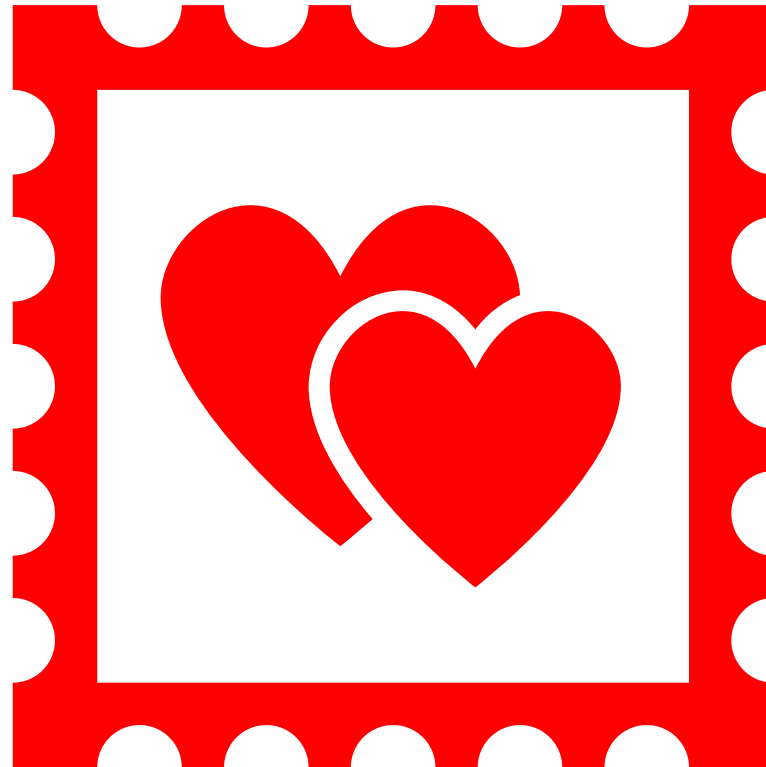


# But first...

## Students

Trust  
Support  
Patience

Honesty  
Reflection  
Time



## Parents/Carers

Trust  
Support  
Patience

Materials  
Space  
Time





"You cannot escape the  
responsibility of tomorrow by  
evading it today"

Abraham Lincoln



Think of a task/piece of work that you have recently started but did not finish.

How did you justify not completing this work to yourself?



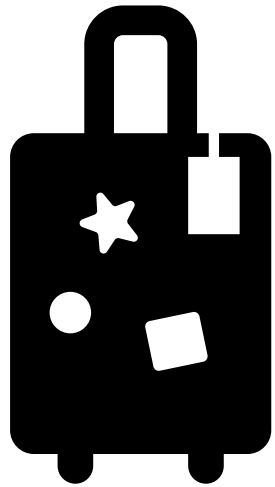
" I bet that she hasn't done it either – I will be fine"

"The instructions weren't clear so I can't do it"

"I did a rush job last time and got decent marks"

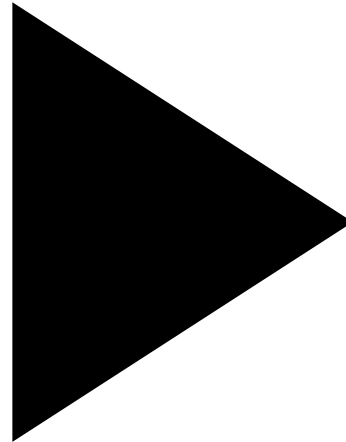
"I need to give myself a break. What's happening on TikTok?"

# Self-sabotage



Move locations

Remove distractions



Start the task



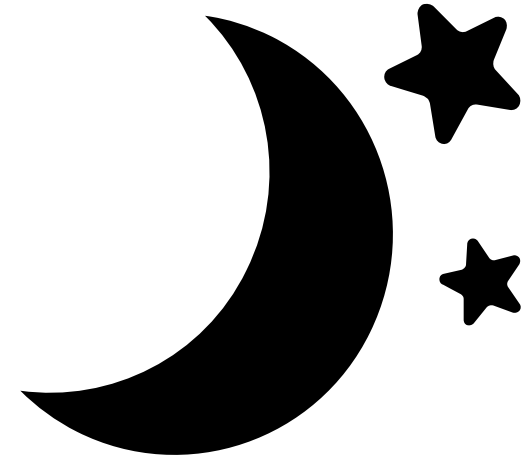
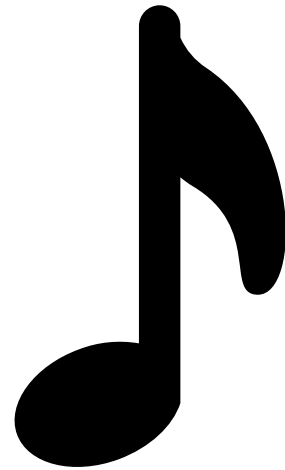
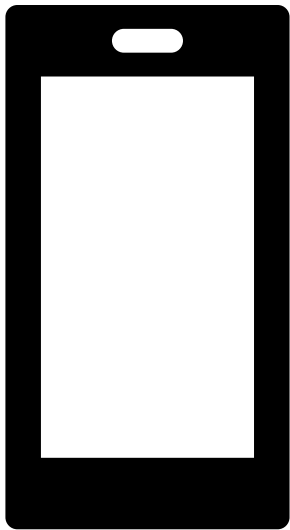
Celebrate the proactive  
approach





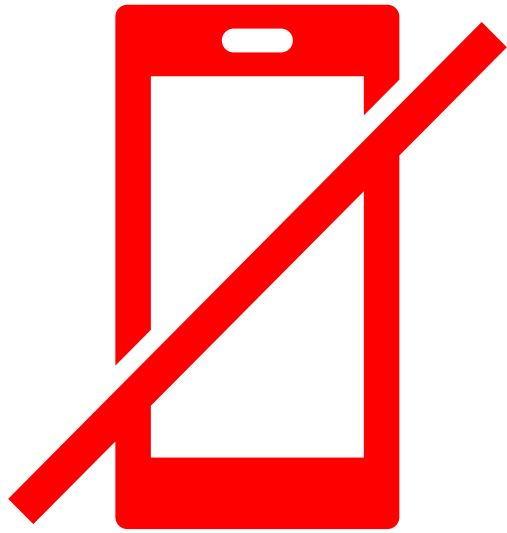
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# Myths about revision



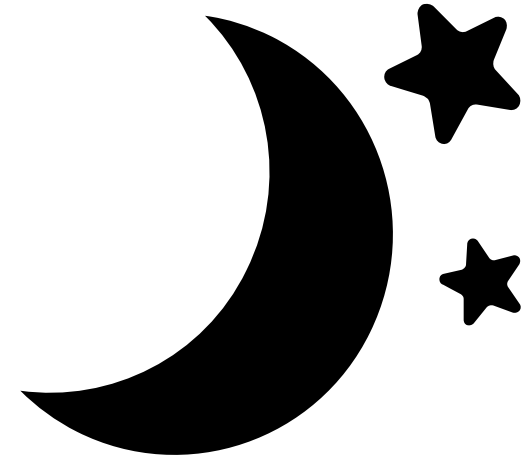
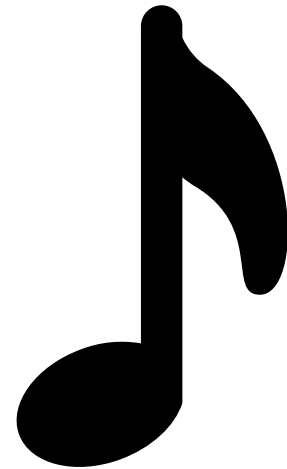


# Myths about revision



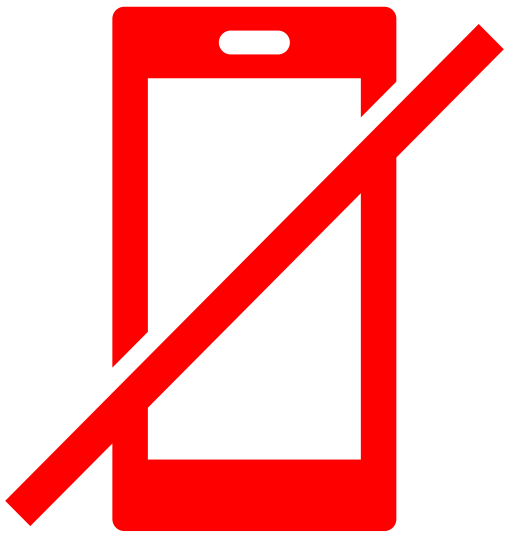
20% less

*(Thornton et al, 2014)*





# Myths about revision



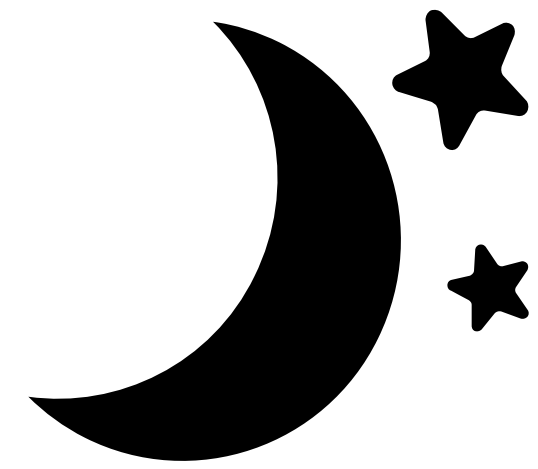
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*(Thornton et al, 2014)*



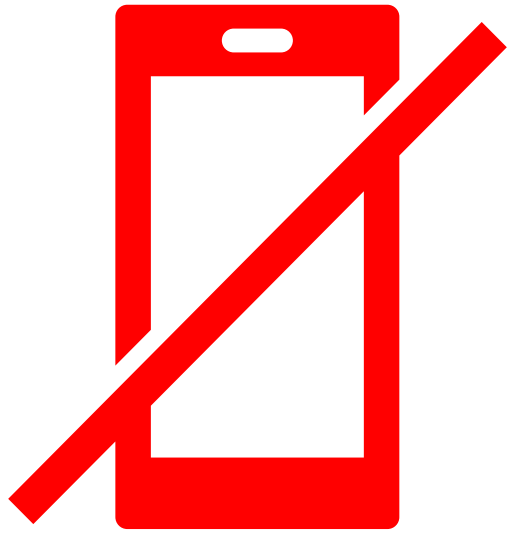
60% better

*(Purham & Currie, 2015)*





# Myths about revision



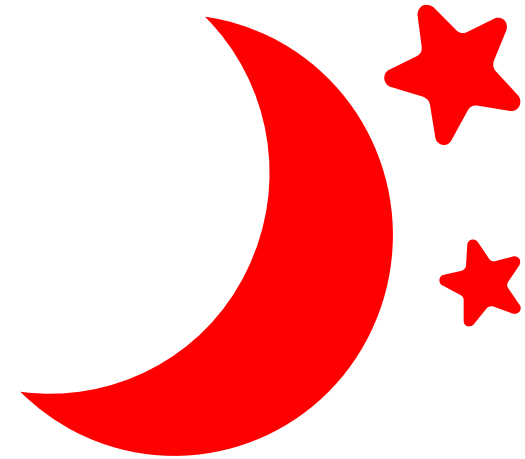
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*(Thornton et al, 2014)*



60% better

*(Purham & Currie, 2015)*



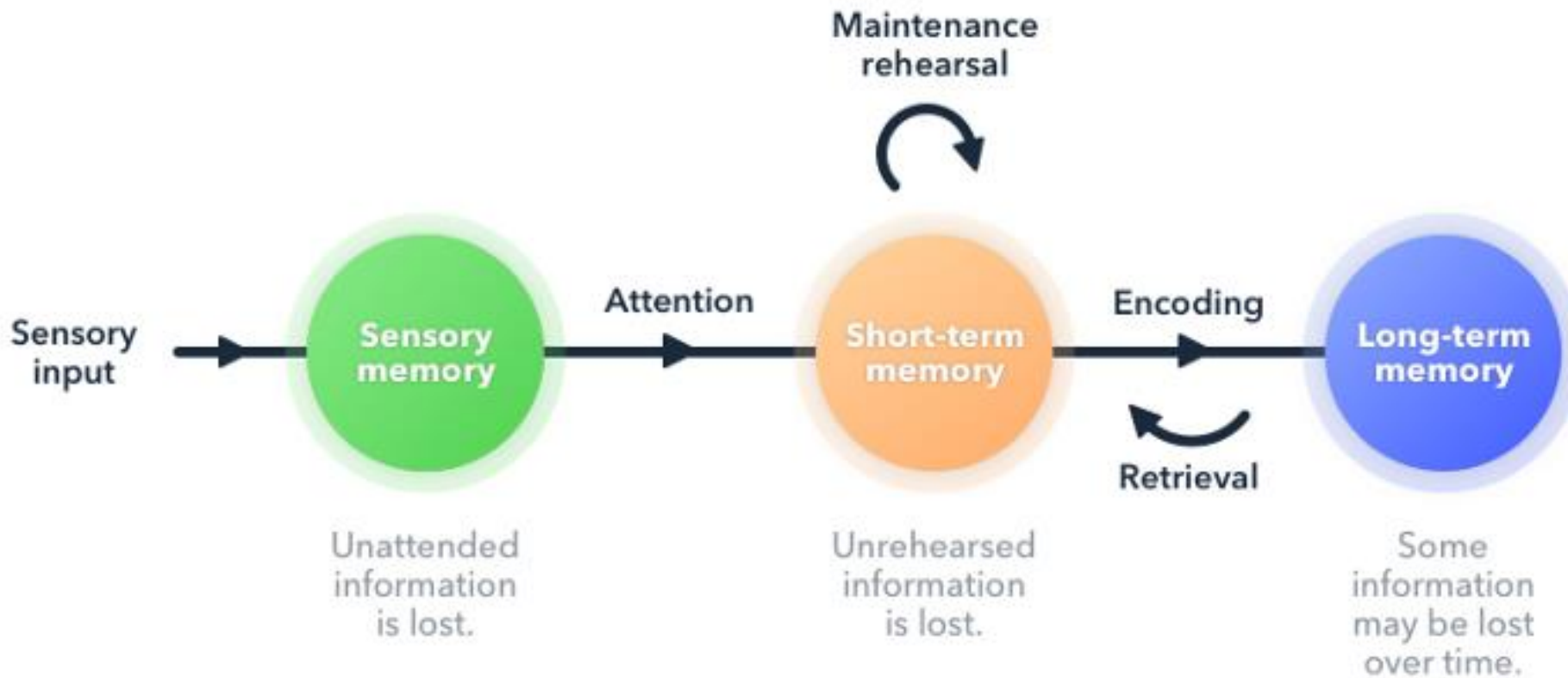
Poor sleep = poor memory

*(Van der Helm & Walker, 2009)*

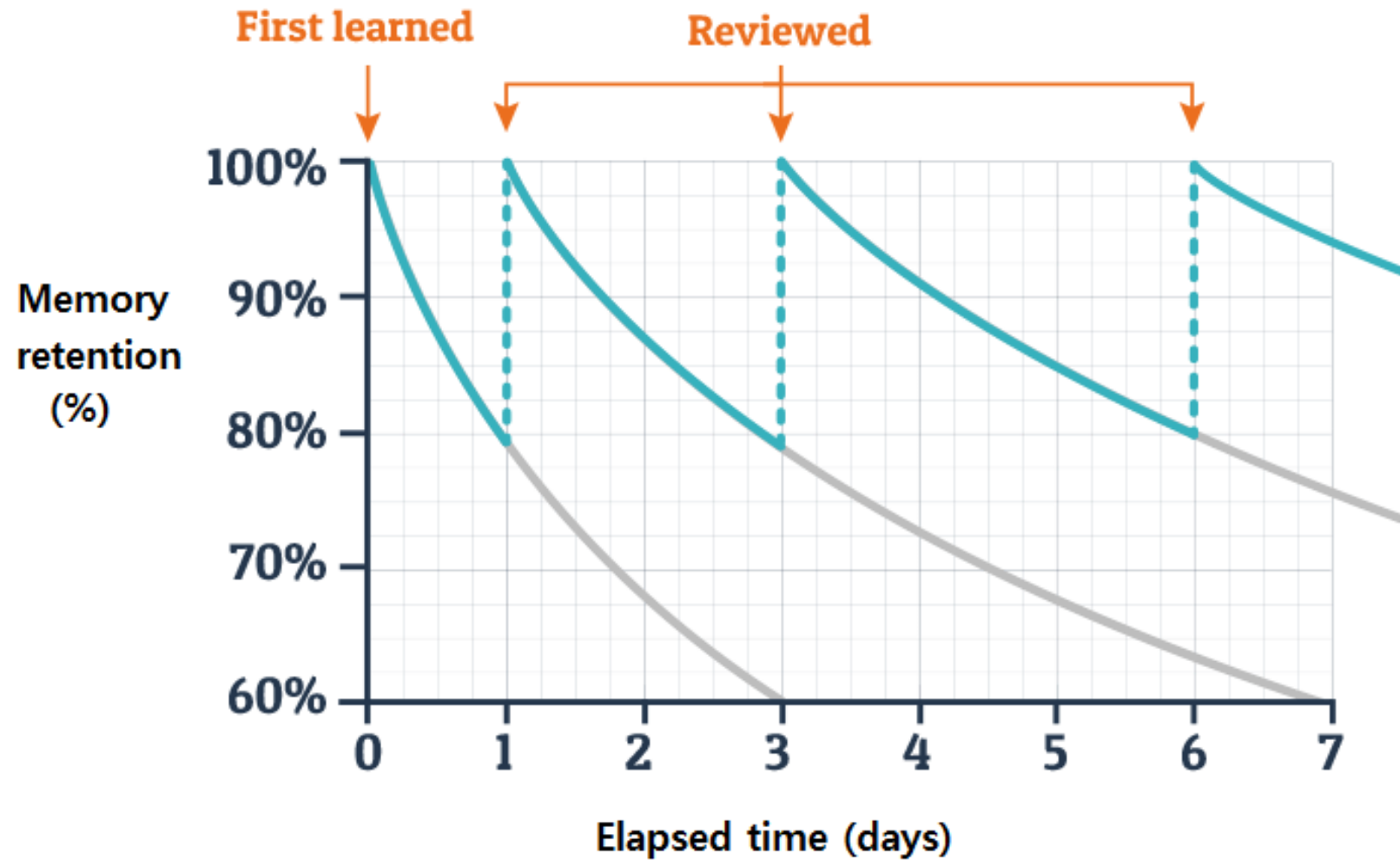


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# Memory



# Memory







"A goal without a plan is just a wish"

Antoine de Saint-Exupéry

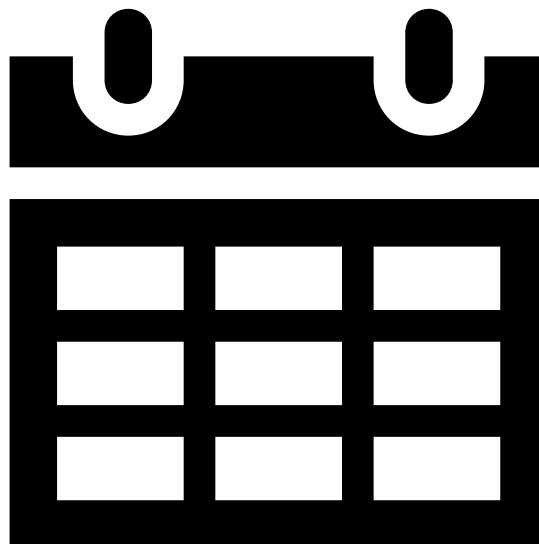
# Spacing and Interleaving



## Spacing

Ensuring that you have a planned gap between studying the same material again

Makes retrieval harder but has a long-term benefit



## Interleaving

Ensuring that you don't study the same thing over and over again in consecutive sessions



# Spacing and Interleaving

*Here is an example of what an interleaved timetable should look like. It seems counterintuitive but the results are immense.*

M	T	W	T	F
ENGLISH	GEOGRAPHY	MATHS	SCIENCE	FRENCH
ENGLISH	GEOGRAPHY	MATHS	SCIENCE	FRENCH
ENGLISH	GEOGRAPHY	MATHS	SCIENCE	FRENCH

M	T	W	T	F
ENGLISH	GEOGRAPHY	MATHS	SCIENCE	FRENCH
MATHS	FRENCH	SCIENCE	GEOGRAPHY	ENGLISH
SCIENCE	ENGLISH	FRENCH	MATHS	GEOGRAPHY

**By mixing up or 'interleaving' what you revise and when, you will remember that material far more effectively simply due to the fact that you will have to revisit that material multiple times with more gaps in between.**

# Revision Timetables



**REVISION**

TIME	MON	TUES	WED	THURS	FRI	SAT	SUN
8:30-9:30	maths	english	maths	maths	english	maths	maths
9:30-10:30	maths	english	maths	maths	english	maths	maths
10:30-11:30	maths	english	maths	maths	english	maths	maths
11:30-12:30	maths	english	maths	maths	english	maths	maths
12:30-1:30	maths	english	maths	maths	english	maths	maths
1:30-2:30	maths	english	maths	maths	english	maths	maths
2:30-3:30	maths	english	maths	maths	english	maths	maths
3:30-4:30	maths	english	maths	maths	english	maths	maths
4:30-5:30	maths	english	maths	maths	english	maths	maths
5:30-6:30	maths	english	maths	maths	english	maths	maths
6:30-7:30	maths	english	maths	maths	english	maths	maths
7:30-8:30	maths	english	maths	maths	english	maths	maths
8:30-9:30	maths	english	maths	maths	english	maths	maths
9:30-10:30	maths	english	maths	maths	english	maths	maths
10:30-11:30	maths	english	maths	maths	english	maths	maths
11:30-12:30	maths	english	maths	maths	english	maths	maths
12:30-1:30	maths	english	maths	maths	english	maths	maths
1:30-2:30	maths	english	maths	maths	english	maths	maths
2:30-3:30	maths	english	maths	maths	english	maths	maths
3:30-4:30	maths	english	maths	maths	english	maths	maths
4:30-5:30	maths	english	maths	maths	english	maths	maths
5:30-6:30	maths	english	maths	maths	english	maths	maths
6:30-7:30	maths	english	maths	maths	english	maths	maths
7:30-8:30	maths	english	maths	maths	english	maths	maths
8:30-9:30	maths	english	maths	maths	english	maths	maths
9:30-10:30	maths	english	maths	maths	english	maths	maths
10:30-11:30	maths	english	maths	maths	english	maths	maths
11:30-12:30	maths	english	maths	maths	english	maths	maths
12:30-1:30	maths	english	maths	maths	english	maths	maths

CREATE Search Examtime Subjects Calendar andrea.leyden

Export iCal Download PNG

Today < May 2014 > Month Week

- Biology 17 hours
- Maths 57 hours
- English 41 hours
- Irish 40 hours
- Online Marketing 32 hours
- Mind Map competition 40 hours
- Physics 41 hours
- Tutorials 32 hours
- Business 48 hours
- GCSE Exams 32 hours
- A-level Exams 24 hours
- Earth Day 2014 8 hours
- HSC Exams 40 hours
- Languages 48 hours

MON	TUE	WED	THU	FRI	SAT	SUN
28 Mind Map competition Irish Biology	29 Online Marketing English Physics	30 Irish Business	1 Biology Physics	2 English Maths	3 HSC Exams Mind Map competition	4 Business Irish
5 Physics GCSE Exams HSC Exams	6 Languages HSC Exams Business	7 Irish Tutorials Physics	8 Languages Maths English	9 Maths Online Marketing	10 A-level Exams Mind Map competition	11 HSC Exams
12 9am Biology 10am Maths 1pm Physics	13 Irish Earth Day 2014 Languages	14 Mind Map competition 9am English	15 Business Maths	16 Physics Tutorials	17 Online Marketing English	18
19 Languages Tutorials Business	20 HSC Exams A-level Exams	21 GCSE Exams Business	22 English Maths	23 Business	24 Mind Map competition Languages	25
26 English Online Marketing GCSE Exams	27 Mind Map competition Online Marketing	28 GCSE Exams Biology Physics	29 Irish Maths	30 A-level Exams	31 Languages Irish	1

# Contracting...again





# Revision Timetables



Day	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00
Monday							Yellow			Yellow			Yellow
Tuesday							Yellow			Yellow			Yellow
Wednesday							Yellow			Yellow		Music	Yellow
Thursday							Yellow			Yellow			Yellow
Friday							Football			Yellow	Yellow	Yellow	Yellow
Saturday					Yellow	Football	Football	Football	Football	Yellow			Yellow
Sunday			Yellow			Yellow			Yellow	Yellow			Yellow

School



## What subjects should I revise?

Rank them in order, with the first being the subject in which you need to do the most revision.

When you do this, you should think of:

1. Target Grade
2. Current Grade
3. Current Attitude to Learning in the subject
4. What you want to do next year



# Revision Timetables



Day	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00
Monday													
Tuesday													
Wednesday													
Thursday													
Friday													
Saturday													
Sunday													

School

Music

Football

football

Football

Football

Football

# Revision Timetables

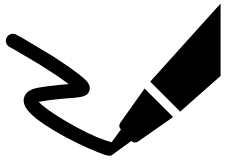


Day	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00
Monday							Yellow	Purple	Red	Yellow	Light Blue	Light Orange	Yellow
Tuesday							Yellow	Purple	Purple	Yellow	Red	Grey	Yellow
Wednesday							Yellow	Purple	Blue	Yellow	Yellow	Green (Music)	Yellow
Thursday							Yellow	Purple	Purple	Yellow	Blue	Dark Blue	Yellow
Friday							Green (Football)	Purple	Red	Yellow	Yellow	Yellow	Yellow
Saturday	Light Orange	Red	Grey	Blue	Yellow	Green (football)	Green (Football)	Green (Football)	Green (Football)	Yellow	Purple	Purple	Yellow
Sunday	Purple	Purple	Yellow	Dark Blue	Light Green	Yellow	Light Orange	Purple	Yellow	Yellow	Red	Light Blue	Yellow

School



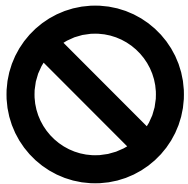
Plan



Act



Survey



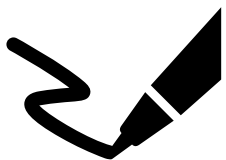
Stop



Plan

- What am I going to do?
- How am I going to do it?
- What materials am I going to use?
- How will I know I have been a success?

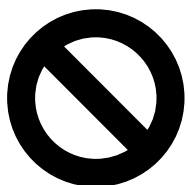
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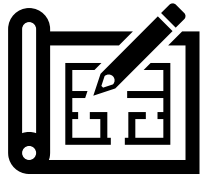
Act



Survey



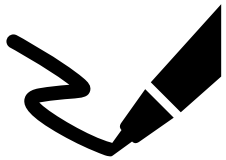
Stop



Plan

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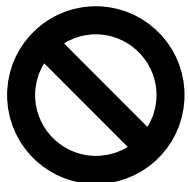
Act

- Do what you said you would
- Don't deviate from the plan

25



Survey



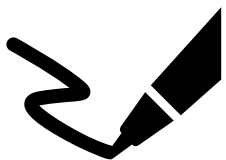
Stop



## Plan

- What am I going to do?
- How am I going to do it?
- What materials am I going to use?
- How will I know I have been a success?

2



## Act

- Do what you said you would
- Don't deviate from the plan

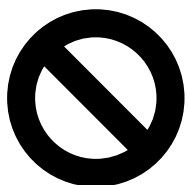
25



## Survey

- How successful have I been?
- How do I know?
- What do I need to focus on next time?
- What did I do well?

3



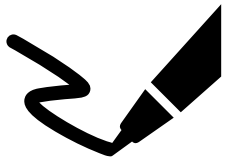
## Stop



## Plan

- What am I going to do?
- How am I going to do it?
- What materials am I going to use?
- How will I know I have been a success?

2



## Act

- Do what you said you would
- Don't deviate from the plan

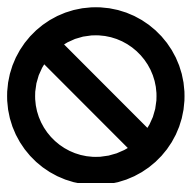
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## Survey

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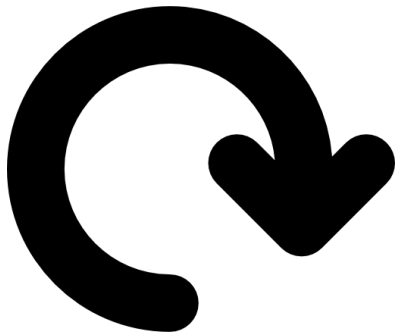


## Stop

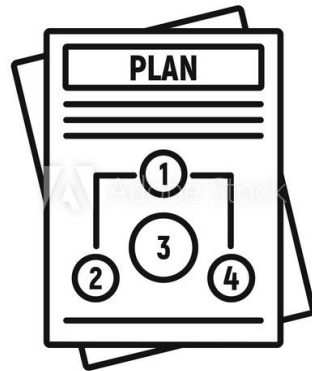
- Get up
- Go somewhere else

10

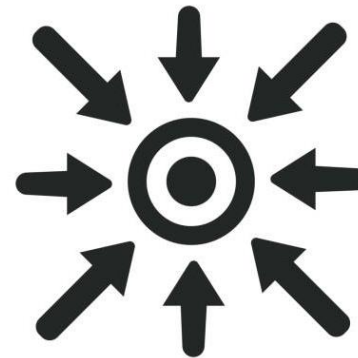
# Revision Timetables



Revisit and Redo



Plan to PASS



Be specific



Ask for help





1. To consider the methods by which we can self-sabotage revision
2. To dispel some myths about revision
3. To use what we know about memory to help construct a spaced and interleaved revision timetable
4. To share the most effective revision strategies

# How Students can Maximise their Learning

## A Generative Learning Approach



### Summarising



Breaking down complex material into easy to read, abridged notes. Summarising Key content.

### Mapping



Creating a flow chart, concept map or graphic organiser to explain links with more complex material.

### Drawing



Drawing an illustration to compliment a written piece of work, or drawing to explain a set of instructions or connections

### Imagining



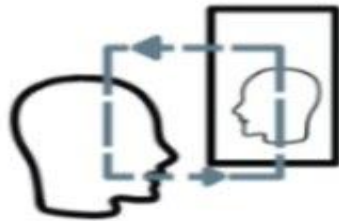
Creating a mental image for a piece of work, how it will look or happen. Visualising before carrying out the action, physical or mental process.

### Self-Testing



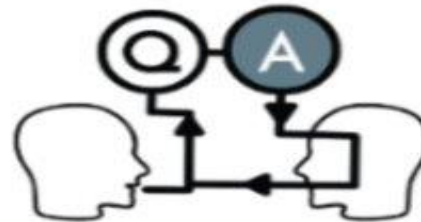
Recall and retrieving all you know about a topic, through writing or mapping. Testing through low stakes quizzes.

### Self-Explaining



Elaborating (explaining) how and why. Breaking down work with examples or processes that lead to an answer.

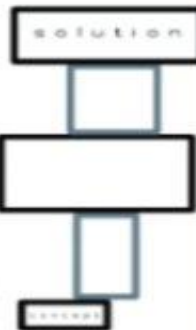
### Teaching



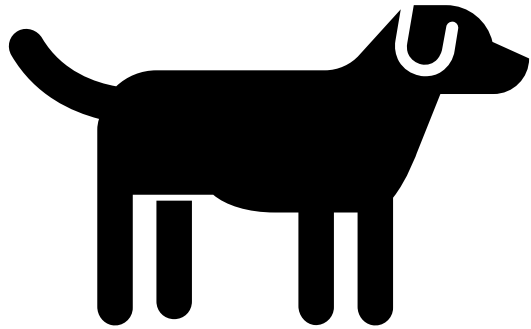
Teaching or explaining to a peer on their knowledge of a topic. Questioning and guiding, building your own topic knowledge.

### Enacting

Using aides/prompts to complete a task. Working through a problem with visual or mental clues to help solve the problem or learn the method.



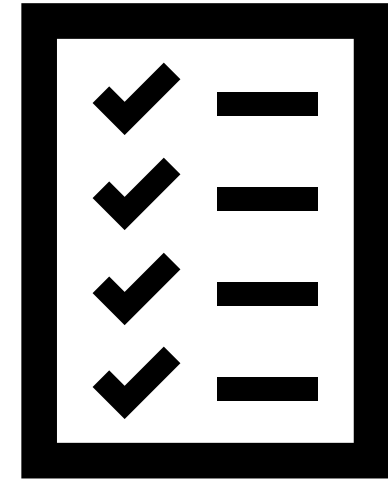
# Key Strategies



Retrieval Practice

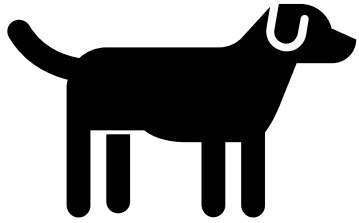


Flash Cards



Deliberate Practice

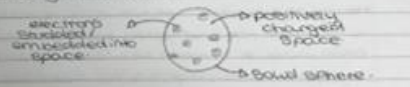
# Key Strategies

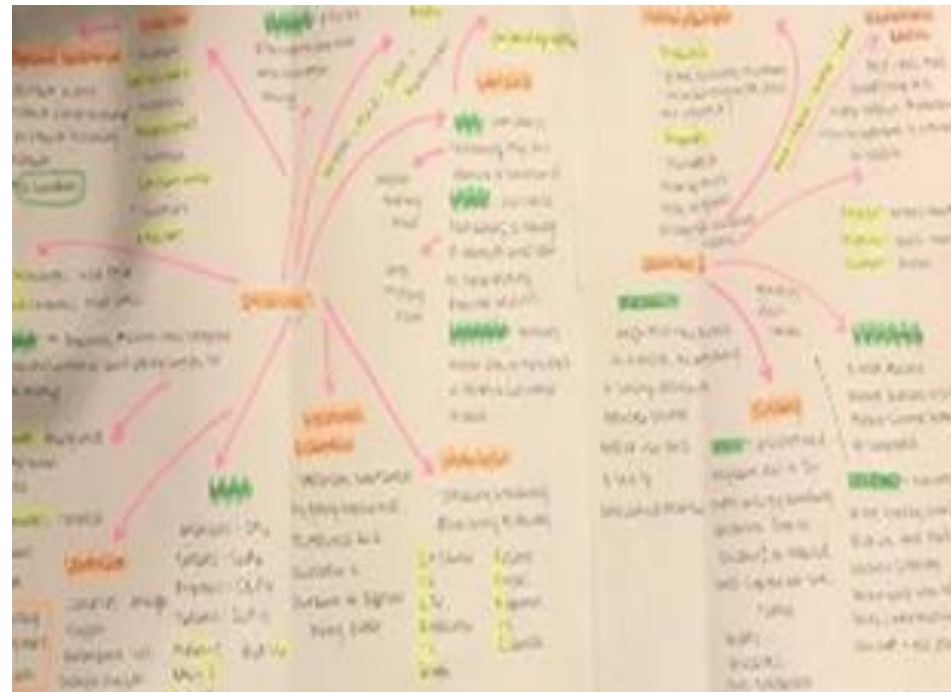


The act of retrieving information from your long-term memory by thinking very hard about it.

Chemistry 1 Revision - **Elements, Compounds, and Structure**

**Elements & Compounds**

- 1) If a substance is made up of three different types of atom, it is a compound.
- 2) If a substance is made up of three of same type of atom, it is an element.
- 3) An element consists of the same type of atom joined together, whereas a compound consists of different types of atoms joined together.
- 4) Both elements and compounds can have one thing in common, for example, the element hydrogen can be also in the compound hydrogen oxide / water -  $H_2O$ .
- 5) Subatomic particles = neutrons, protons and electrons.
- 6) Plum pudding model of atom:  

  - Electrons embedded / embedded in space.
  - positively charged sphere.
  - bowel sphere.
- 7) Over time scientists have changed their ideas about the atom due to Rutherford's alpha particle scattering experiments.
- 8) Isotopes are different forms of the same element with the same number of protons, but different number of neutrons.



A detailed mind map centered on 'ATOMS'. The central node is 'ATOMS'. Major branches include:

- PROTONS**: Positively charged, mass of 1, found in the nucleus, number of protons = atomic number (Z).
- NEUTRONS**: No charge, mass of 1, found in the nucleus, number of neutrons = mass number (A) - atomic number (Z).
- ELECTRONS**: Negatively charged, mass of 1/1836, found in shells/orbitals, number of electrons = number of protons in a neutral atom.
- ISOTOPES**: Atoms of the same element with different numbers of neutrons.
- IONISATION ENERGY**: Energy needed to remove an electron from an atom.
- ATOMIC RADIUS**: Distance from the nucleus to the outer shell.
- RELATIVE ATOMIC MASS**: Weighted average mass of an element's isotopes.
- RELATIVE ATOMIC NUMBER**: Number of protons in the nucleus.
- RELATIVE MASS**: Mass of a particle relative to 1/12th the mass of a carbon-12 atom.

**Keynote**

**Notes / Key points of the task:**  
Magnesium Oxide ( $MgO$ )



1) Ionically bonded ionic compounds

2) Ionic bonding: transfer of electrons  
A neutral metal atom and a non-metal atom  
transfer their outer electrons to form positively charged ions.

3) Ions, metal cations, electrons, all form negatively charged ions.

4) Strong attraction exists between oppositely charged ions.

5) Ionic compounds have giant ionic lattice structure. Ions are held together in regular lattice.  
By strong electrostatic forces of attraction.

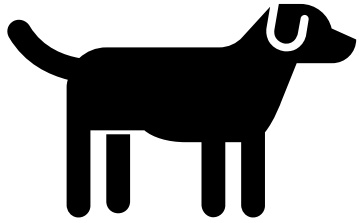
6) High melting/boiling points due to strong ionic attraction ions. Forces are strong, energy to break.

7) Soluble in water. Conduct electricity due to ions held in place but can conduct electricity when liquid or dissolved in water. Ions can carry electrical current.

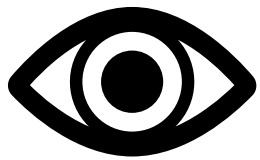
8) Follows 8-dot rule in lattice ions structure and are held together in the structure with strong electrostatic forces.

**Summary:** Ionic bonding is strong ionic bonding between metal ions and non-metal ions. The metal atoms lose their outer electrons to form cations and the non-metal atoms gain electrons to form anions. Ionic compounds have a strong electrostatic force of attraction.

# Key Strategies



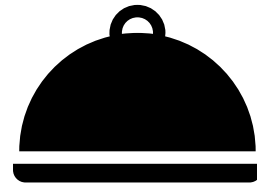
Another great strategy linked to retrieval was probably taught to you in primary school...



Look



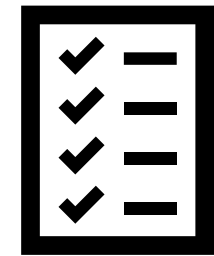
Say



Cover

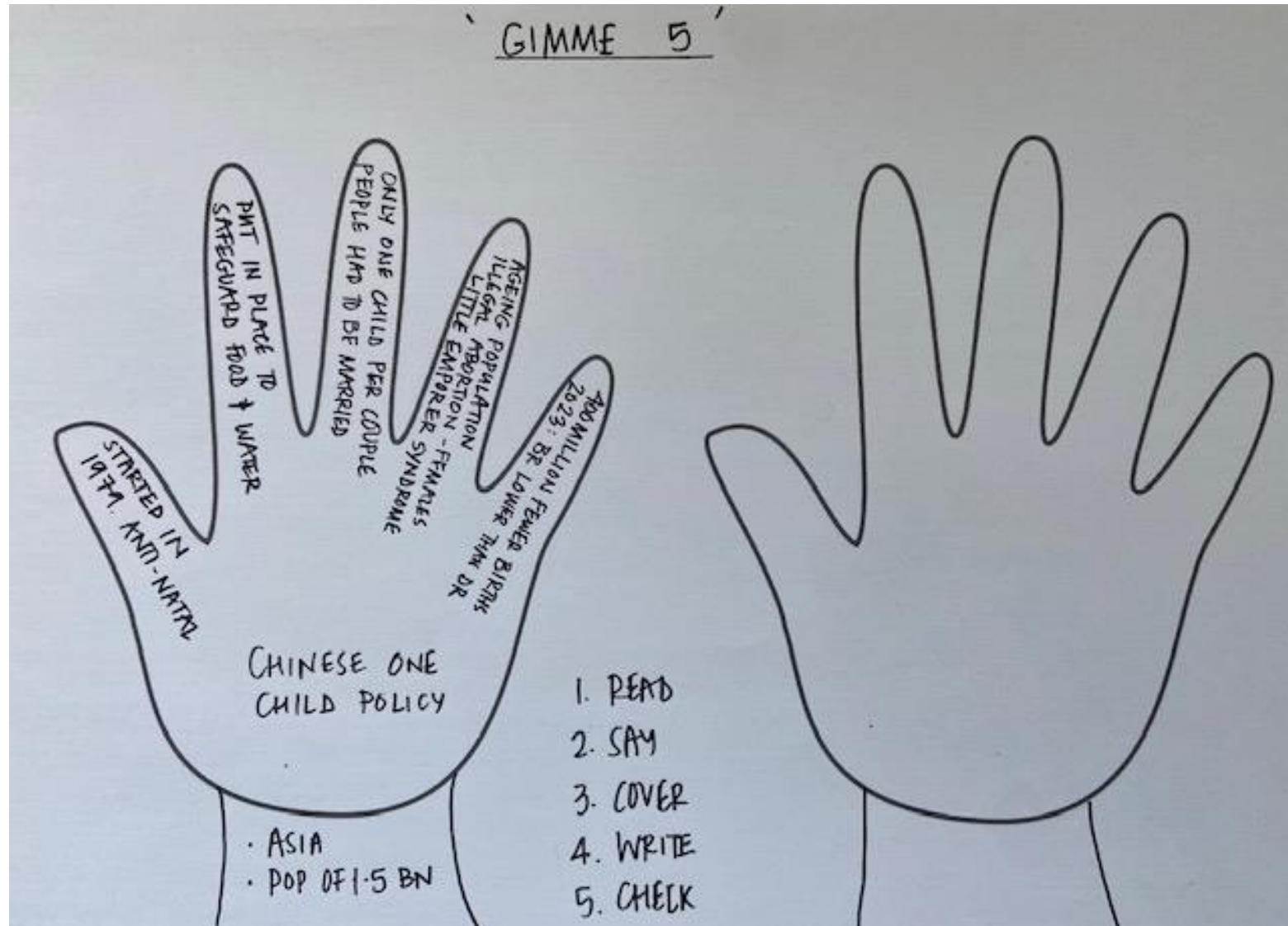


Copy

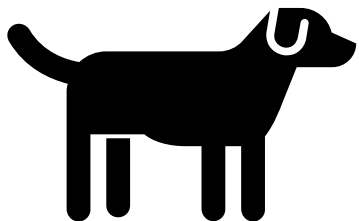


Check

# Key Strategies



# Key Strategies



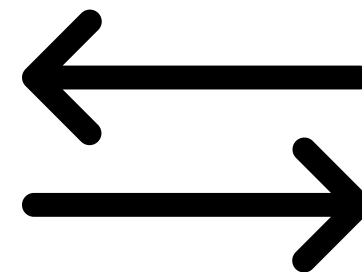
Key things to remember:



Retrieval is hard



Check for success



Variety is key

# Key Strategies



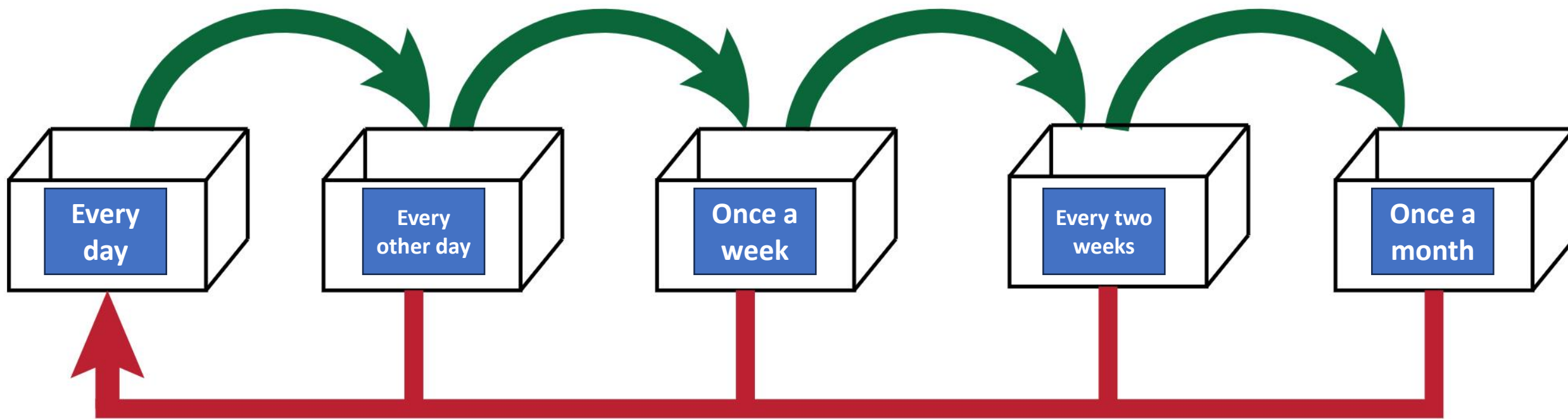
Creating a series of memory jogging information cards that can be revisited across a spaced timetable







## Correctly answered cards

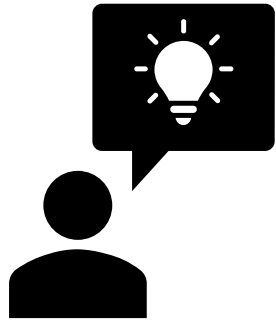


## Incorrectly answered cards

# Key Strategies



Key things to remember:



They are great for learning facts or key terms

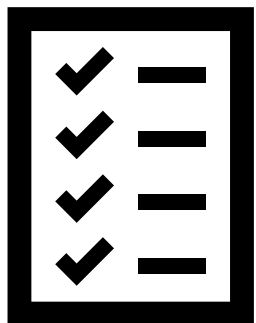


They help organise your knowledge

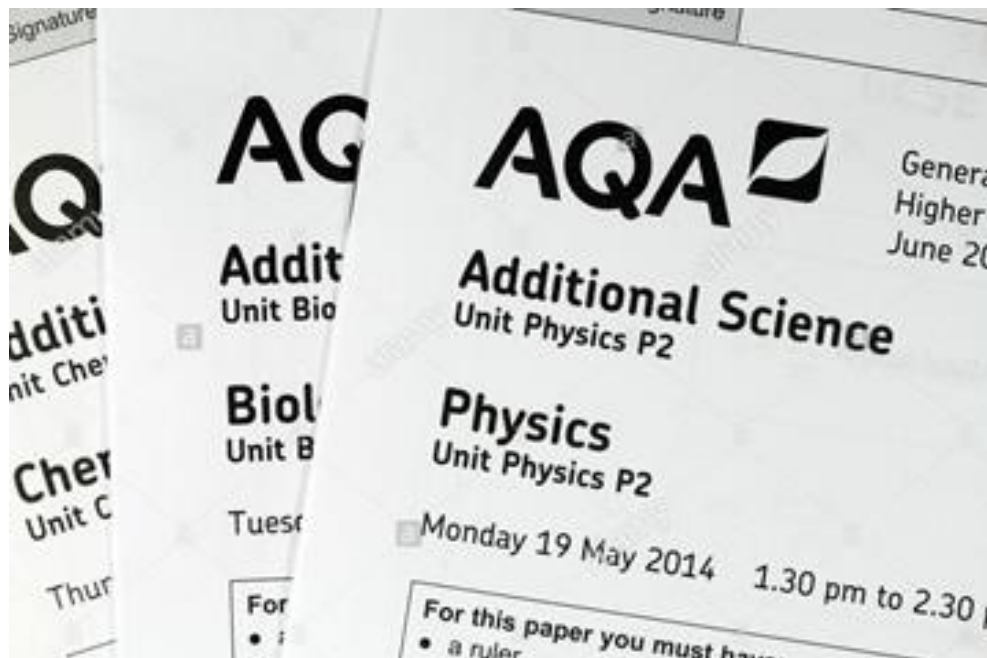


Making them is fun – don't confuse this with learning

# Key Strategies



Deliberate practice could involve spending time completing tasks that you will face in the upcoming exams.



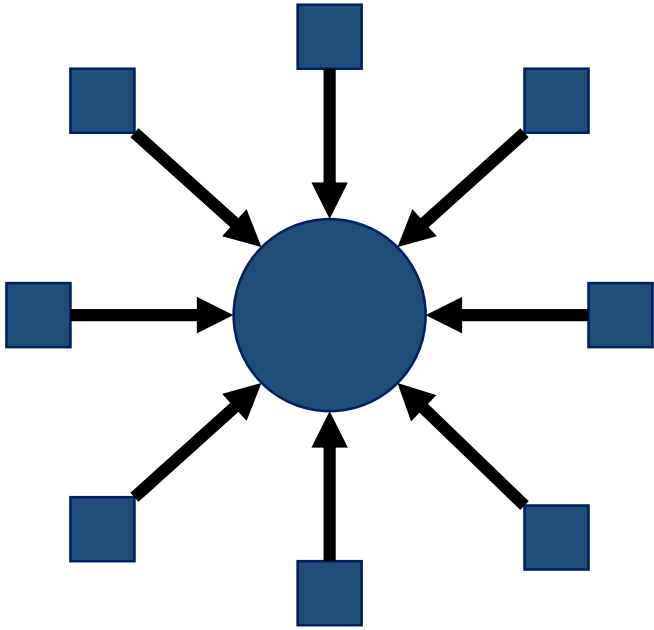


1. To consider the methods by which you can self-sabotage revision
2. To dispel some myths about revision
3. To use what we know about memory to construct a spaced and interleaved revision timetable
4. To share the three revision strategies we think will work best for you

# My final thoughts...

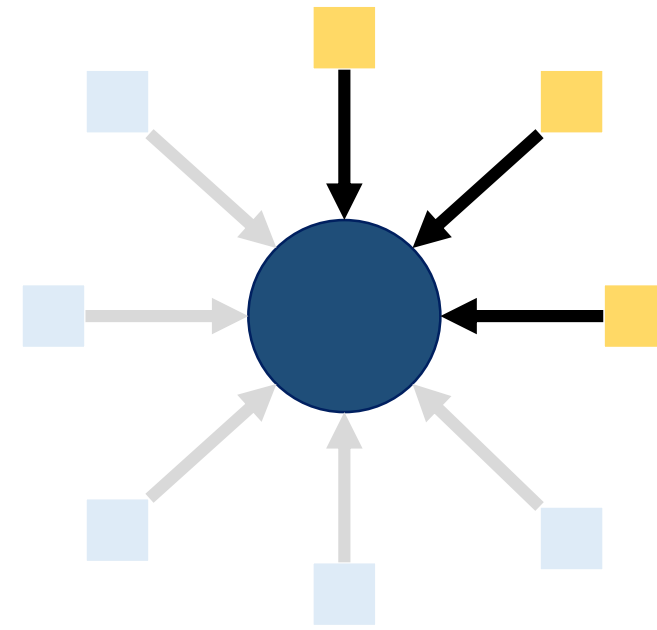


If...



Too much information is presented at once

Then...



Prioritise important information

# My final thoughts...

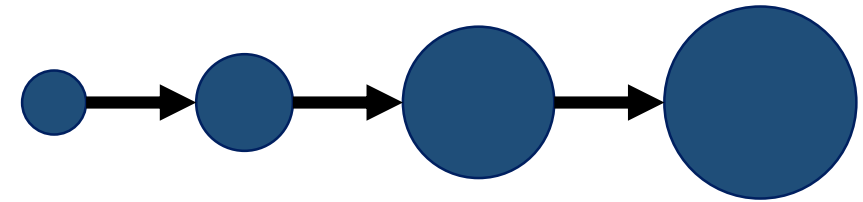


## If...



The task will take too long

## Then...

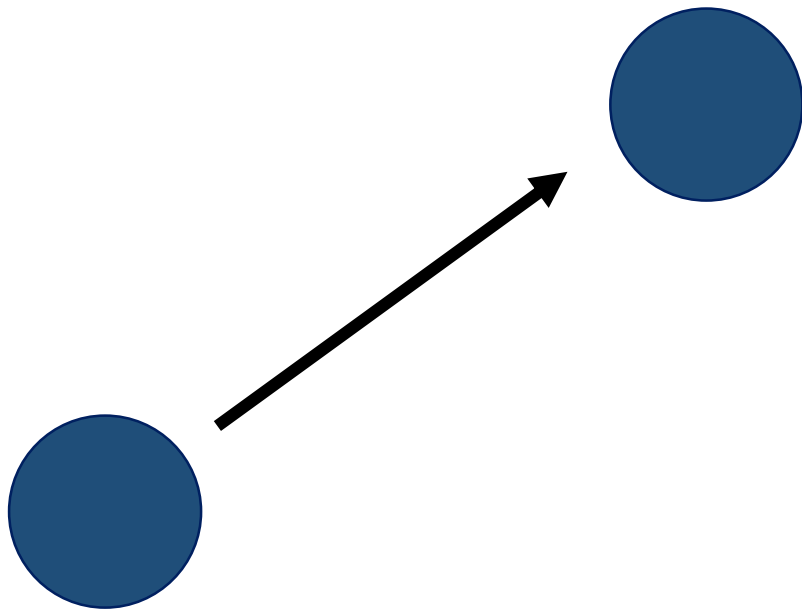


Break it down with shorter deadlines

# My final thoughts...

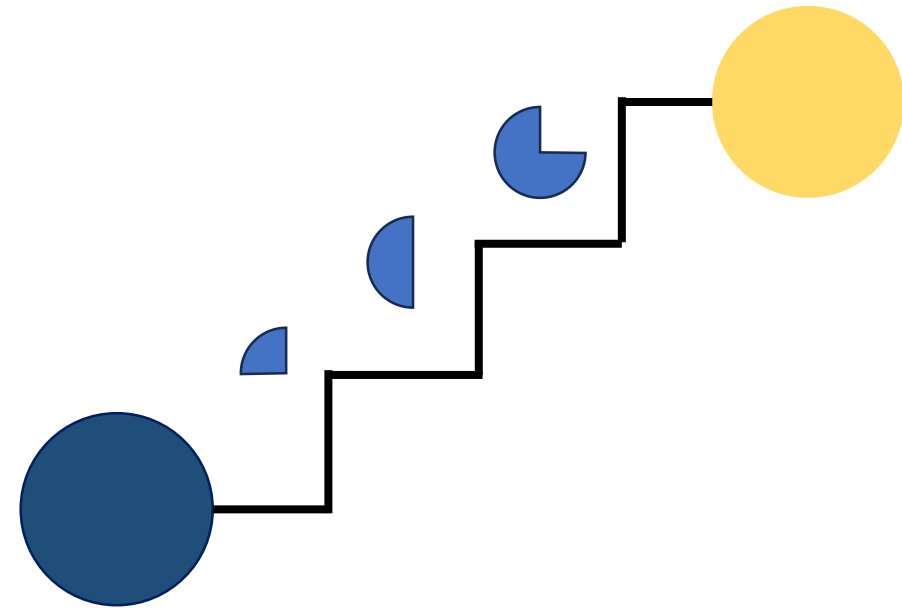


## If...



The task is too difficult

## Then...

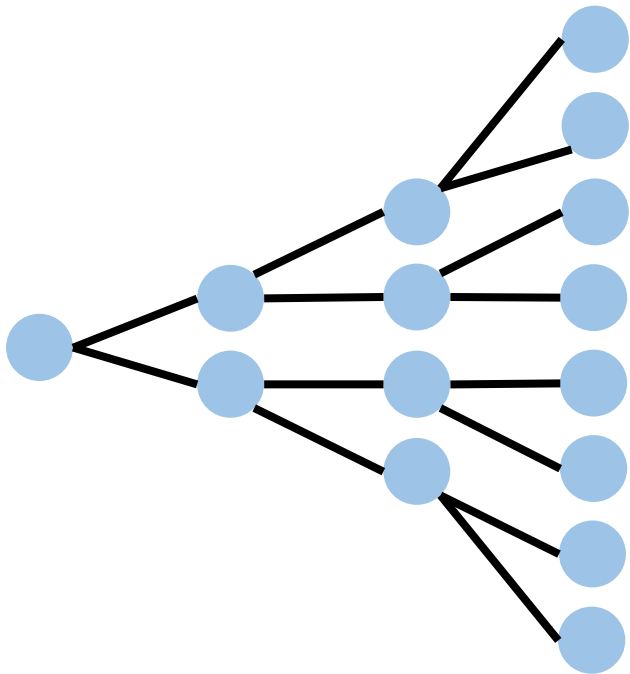


Break it down into small chunks



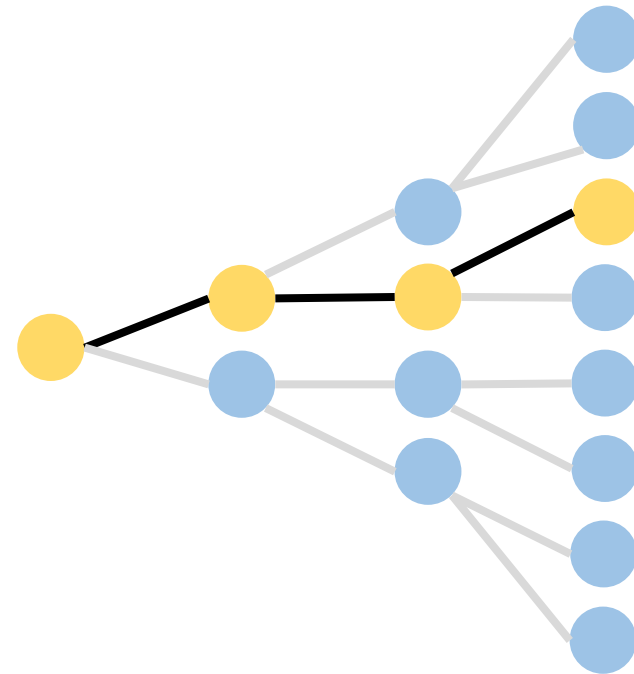
# My final thoughts...

If...



There are too many choices

Then...



Highlight a clear path