



the british
psychological society
promoting excellence in psychology

MEMORY FOR LEARNING

A PSYCHOLOGY STUDENT'S
GUIDE TO LEARNING

Date of presentation

WHAT IS MEMORY?

**THE ABILITY TO RECALL
INFORMATION FROM
OUR SHORT OR LONG
TERM 'STORES'.**

WHAT IS MEMORY?

There are various 'types' of memory stores.

SHORT-TERM MEMORY

Small capacity.
30 second duration

LONG-TERM MEMORY

Unlimited capacity and duration. Breaks into three further memory types

WORKING MEMORY

Small capacity and duration. Involved in all thought processes, problem-solving, decision-making, morals...

Our brains/memories are flawed. We forget, implant memories, create false memories and rely on cues.

WHAT IS LONG-TERM MEMORY?

LONG-TERM MEMORY

Unlimited capacity and duration. Breaks into three further memory types

PROCEDURAL

Knowing how to do certain actions / motor movements:

- Texting
- Typing
- Walking
- Cycling
- Driving

EPISODIC

Episodes from personal experiences:

- Holidays
- Happy or sad events
- The visual memories in our mind with strong emotions

SEMANTIC

Factual knowledge:

- Capitals of countries
- Naming items
- Times tables
- Key terms

WHAT IS MEMORY?

- Learning is the creation of new **semantic** memories
- However, semantic memories alone are just facts, and we can often **forget** these as they are **meaningless**
- So, we need to **apply** our factual knowledge to real-life situations, examples, case studies or through reading the news in order to create episodic memories
- This creates stronger memory connections / two memories are better than one

APPLYING FACTS ABOUT MEMORY TO LEARNING

FIVE KEY FACTS TO KNOW



LEVEL OF PROCESSING

- The more **deeply** we process information
- The **more likely we are to remember it**
- **Semantic** processing (according to meaning)
- The deepest and best way to encode information



ACTIVITY 1

Think of a sentence for each word in the list.

E.g. Eagle – The eagle soared high over the mountains

Buttercup

Jumper

Broccoli

Goggles

Haddock

Piano

Lorry

Biro

Oak

Sofa

Knife

Kitchen

ACTIVITY 2

Make a mental note of whether the word is in capital letters or not.

E.g. EAGLE – yes. eagle – no.

BUTTERCUP

Jumper

Broccoli

GOGGLES

Haddock

PIANO

LORRY

Biro

OAK

Sofa

Knife

KITCHEN

ACTIVITY 3

Make a mental note of whether the two words rhyme or not.

E.g. Eagle rhymes with mouse – no.

Buttercup rhymes with breakup

Jumper rhymes with bumper

Broccoli rhymes with tomato

Goggles rhymes with boggles

Haddock rhymes with shark

Piano rhymes with glass

Lorry rhymes with sorry

Biro rhymes with book

Oak rhymes with sock

Sofa rhymes with phone

Knife rhymes with wife

Kitchen rhymes with curtain

WHAT DOES THIS LOOK LIKE?

- Reading, copying, rote learning is superficial learning
- It makes learning and recall much harder
- Recall is best when the material being learned is fully understood
 - Read and recall information
 - Apply new information to other situations
 - Explain information to someone else
 - Write notes in your own words

HOLISTIC LEARNING

- Important to make **links** between information
- Link new knowledge with **existing and meaningful knowledge**
- Can only do so when you **fully understand it**
- This leads to **much higher recall**

WHAT DOES THIS LOOK LIKE?

- Make links with things in your own life/real life examples
- Make links with things you have learned previously
- Think about how the new information might link up with other subjects
- Do an experiment to test out your new knowledge

CHUNKING

- **Organising information** into meaningful '**chunks**'
- Involves looking for patterns, themes, connections that **link information**
- **Group** information together

WHAT DOES THIS LOOK LIKE?

- Don't try to learn random facts
- Organise your notes / revision materials into meaningful sections
- Think about what pieces of information go 'together'

TRY TO LEARN THE LIST:

DATNOLPIBREYCUG

CARLITDOGPENBUY

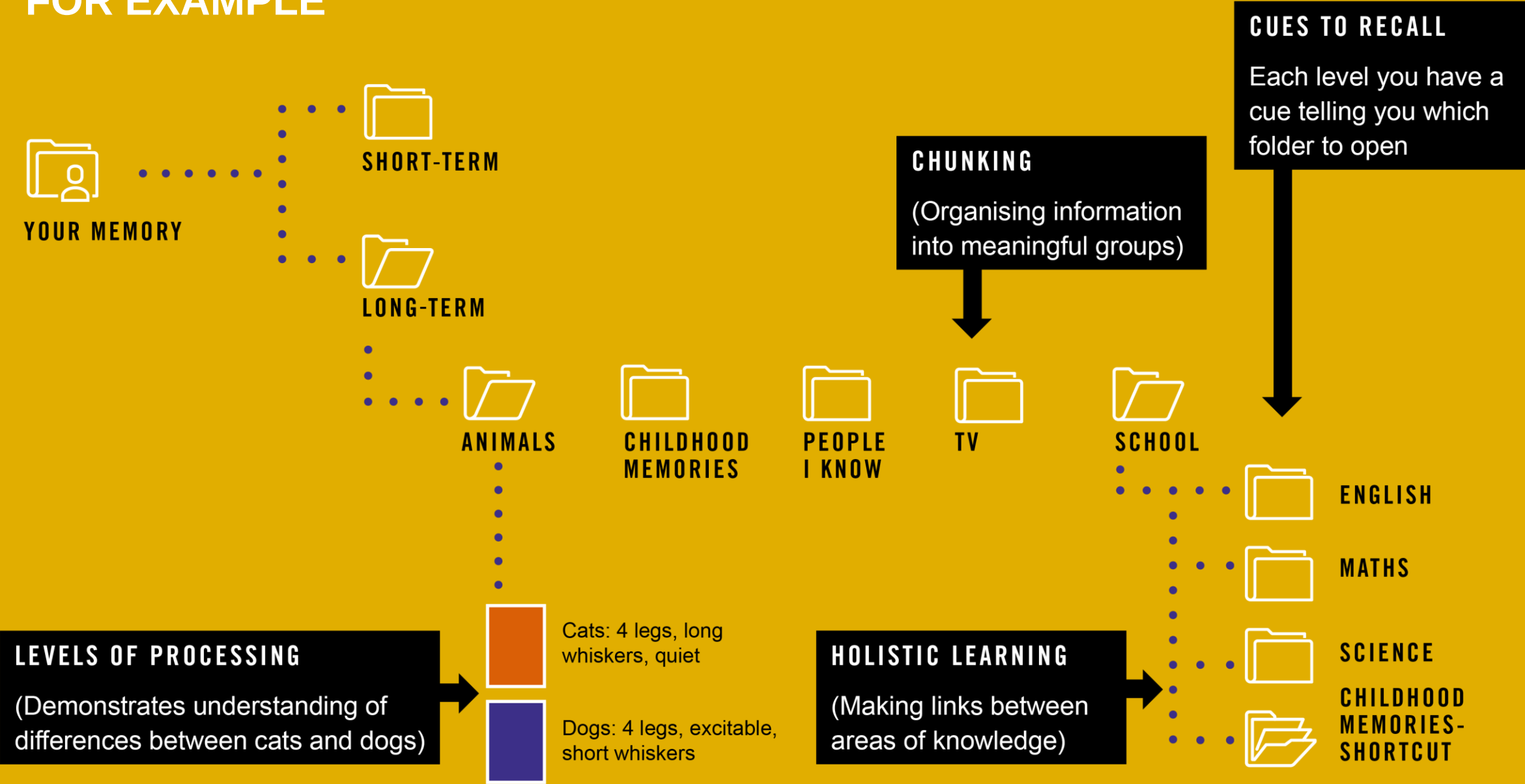
CUE DEPENDENT FORGETTING

- When we can't recall something
- Information is **not lost**
- We just **can't access it**
- Need **cues** to retrieve it
- Need to **encode cues as these** act as **triggers** for recall

WHAT DOES THIS LOOK LIKE?

- Identify key words that will be on the exam paper and highlight them in your notes
- When you are in your exam the questions will give you your cues for recall so look at past papers
- Create flashcards with cue words on one side and related facts on the other
- Use cue words to organise information under your notes

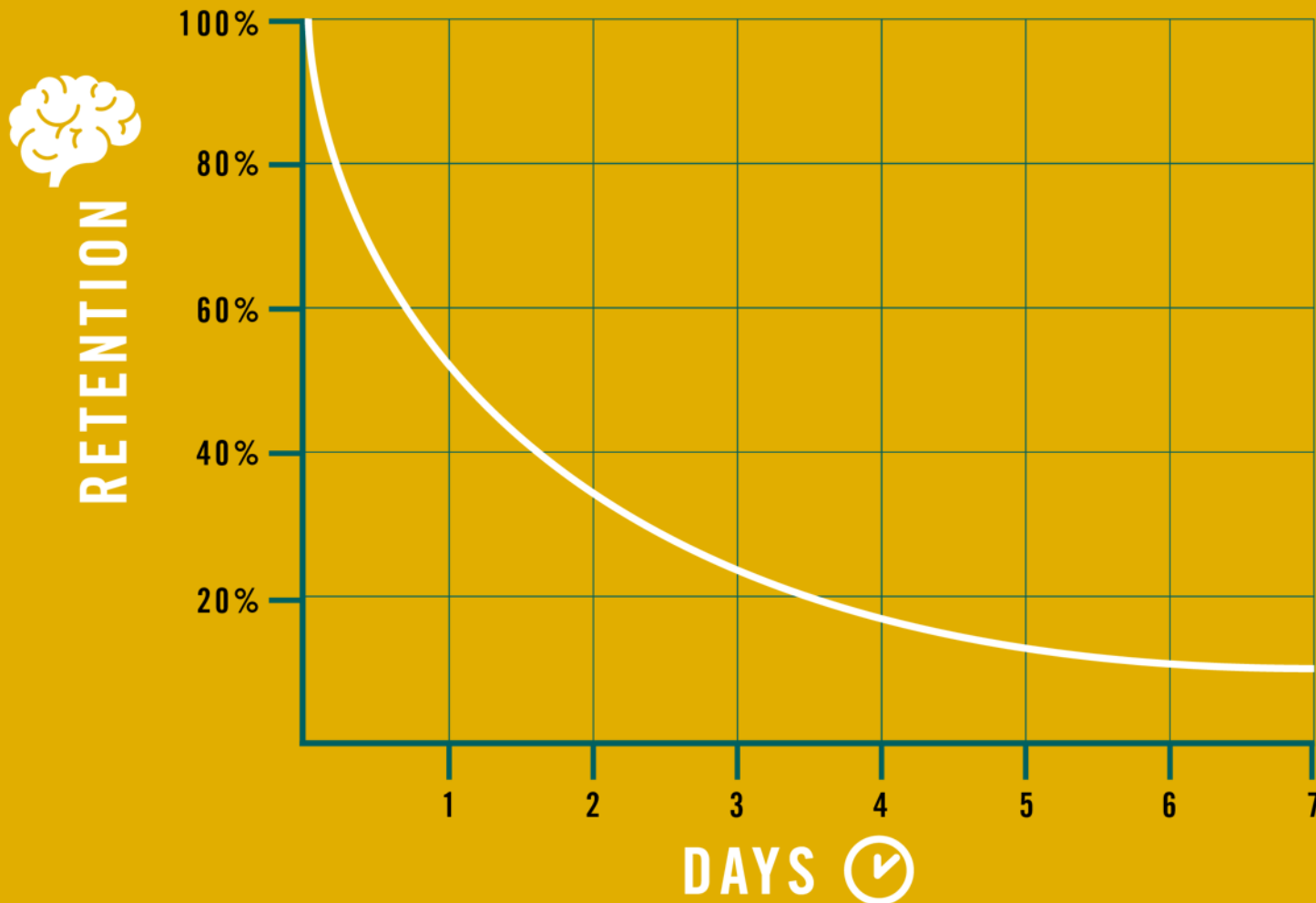
FOR EXAMPLE



THE FORGETTING CURVE



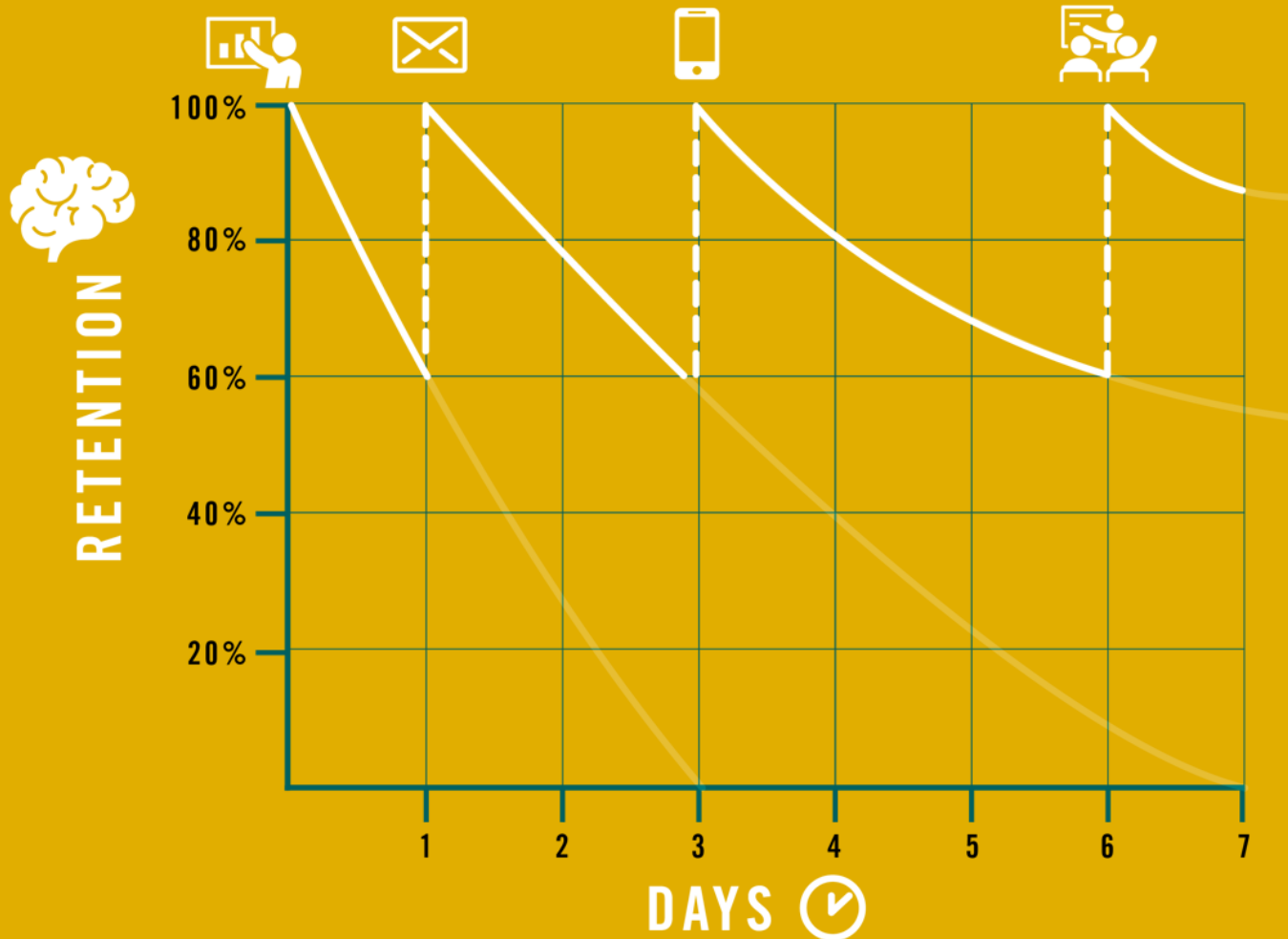
THE FORGETTING CURVE



- You'll often leave a lesson thinking you have learnt and remembered everything... until you're tested on it
- Forgetting is **inevitable** and **essential** in the learning process
- We forget as soon as **20 minutes** after learning
- By forgetting, we **identify** what we need to review to **strengthen** our learning

HOW DO WE LEARN

COMBATting THE FORGETTING CURVE



- We relearn information faster the 2nd, 3rd and 4th time
- We need to be reviewing information regularly to ensure we are not **overloading** ourselves near exam periods
- 30 minutes per day is easier and manageable compared to 2.5 hours solidly

HOW DO WE LEARN

WHAT IS YOUR LEARNING STYLE?

- Learning styles **do not** exist, we are **not** destined to learn in particular ways
- Categorising yourself as a specific type or learning style will **restrict** and **prevent** you from learning
- We have learning preferences **BUT** these may not be the best way of learning
- To learn, we must encounter challenges and forget information to identify and strengthen our memory of an area

HOW DO WE LEARN

- Learning a topic using both auditory and visual information can create stronger memories. You're processing new information in two ways
- This is called dual-coding

WORKING MEMORY

Thinking, decision-making, problem-solving, morals.

PHONOLOGICAL LOOP

Inner voice and inner ear.

VISO-SPACIAL SKETCHPAD

Inner eye.

HOW NOT TO LEARN!

- Re-reading and highlighting notes are the **weakest** ways to learn and revise
- It creates weak semantic memories that aren't linked to wider concepts
- You **will** forget weak memories
- Learning needs to be challenging to be effective

WHY CREATE REVISION NOTES?

You can organise information into meaningful 'chunks'

You're able to process the information at a more meaningful level – in your own words

You can add in wider-connections to real-life / other topics

You can identify cues to recall

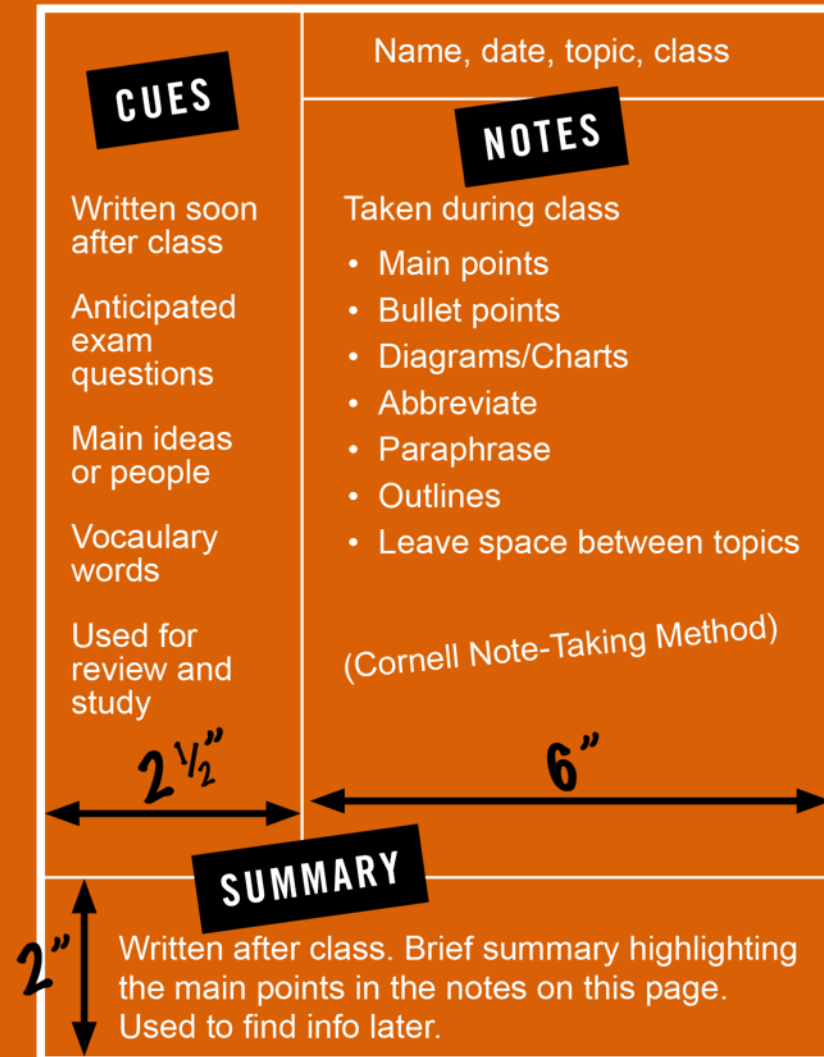
You will have a really good tool to help you revise for exams

HOW TO NOTE-TAKE IN LESSONS

- Improve your note-taking skills in lessons by using this system
- This helps you think about the information you're writing, whilst giving you space to summarise after the lesson

Combats forgetting because you need to summarise afterwards

Helps you create revision material because you've summarised already



REVISION NOTES

HOW DO WE MAKE REVISION NOTES?

AO1= Agency Theory

The theory states the Ps= can be in one of 2 states

Normally Ps operate in an **autonomous state**

- = According to own **free will** and volition
- Feel **responsibility** for own actions

BUT - when given orders by an **authority figure** - may shift into an **Agentic state**

- See themselves as simply **'acting as an agent'** for the authority figure
- =Feel **reduced sense of personal responsibility** for their actions
- **Pass over** responsibility to authority figure
- Can cause Ps to go against own wishes and behave in ways they wouldn't do normally

When carrying out these orders - may experience **moral strain**:

- = When experience **conflicts** with their own **moral compass**
- I.e. don't want to do it
- **BUT** follow order as feel it is for **'greater good'**
- = Benefits society

Theory suggests = are **socialised** into agentic state from a young age

- E.g. we are **taught** to obey our parents
- = Trains us to obey teachers, employers, other authority figures e.g. police when older
- Means the obeying authority figures = the **norm** (expected behaviour)
- = **Maintains hierarchy** - enables **society** to function.

REVISION NOTES

HOW DO WE MAKE REVISION NOTES?

CHUNKING

Organised into paragraphs of linked information

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CUES TO RECALL

Highlighted in yellow

LEVELS OF PROCESSING

Notes written in students own words - important words in red

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HOLISTIC LEARNING

Examples in the last paragraph

FORGETTING CURVE

1st revisit after initial learning, ready for checking recall next time

HOW WOULD YOU APPLY THIS TO...

Flashcards

Mind maps

Mnemonics

Mind Palace

Online quizzes



Thank you

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