



**SUCCESS**

Life after Cure

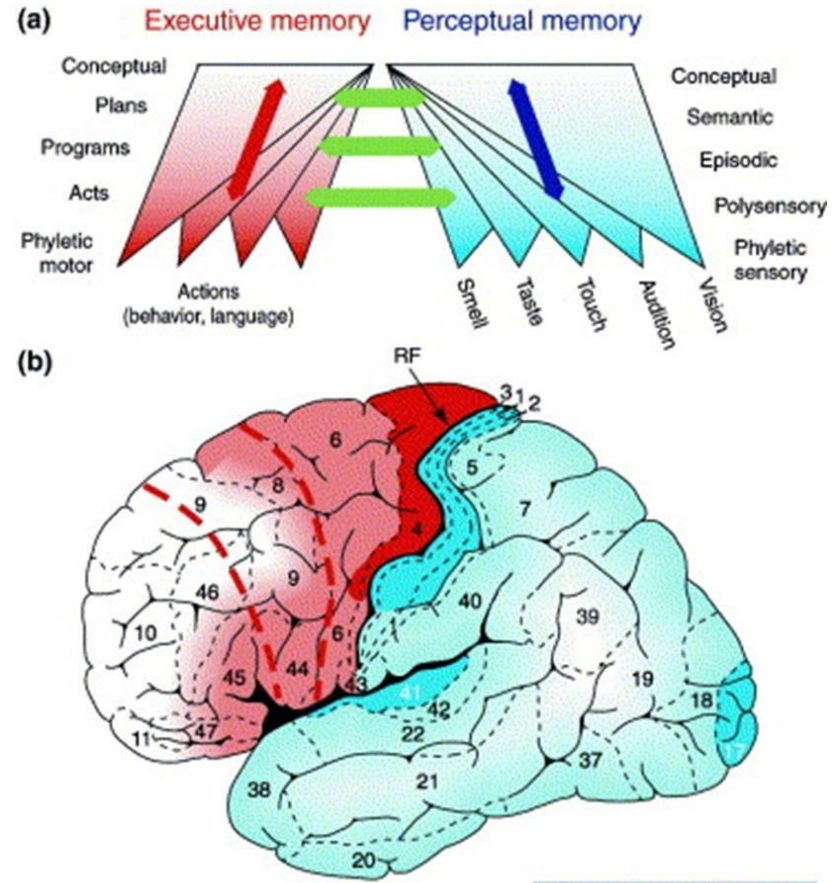
# Memory

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Memory is very complicated

- There are different types of memory which use different parts of the brain



Conditioning

Flashbulb

Sensory

Episodic

Short term

Visual

Verbal Working

Skills

Semantic

Procedural

Where

What

Habits

Metamemory

Motor

Autobiographical

Priming

Prospective

Memory

Facts

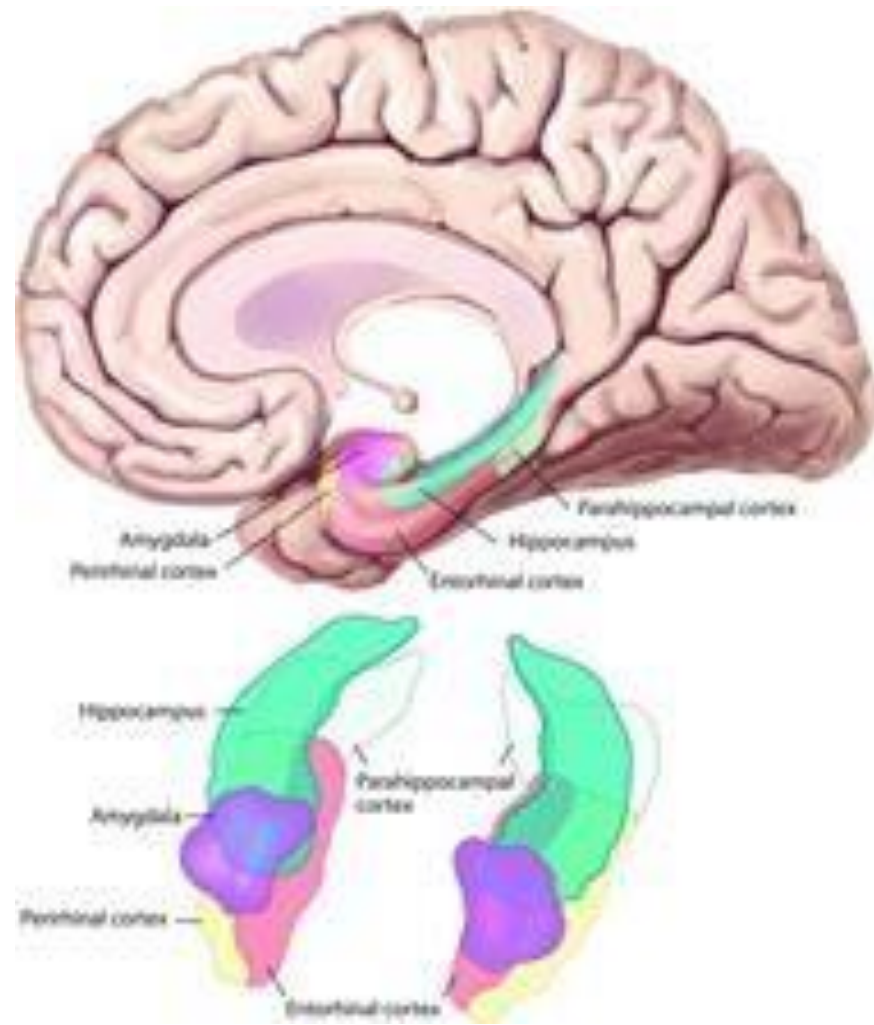
When

How

# Today

- Will talk about 5 different types of memory (if we have time!)
- **Episodic memory**
- **Semantic memory**
- Short-term memory and Working Memory
- *Prospective Memory*

# Episodic Memory



# Episodic Memory

- Memory for information that is tagged to where and when. E.g.
  - I went to Ben's birthday party last week
  - I had porridge for breakfast
  - I learnt about capital cities in school today.



## Episodic Memory Strategies

### Difficulties with episodic memory:

- Forgetting what happened more than a minute or two ago BUT can remember facts, routines and habits
  - *Forgetting instructions, conversations and experiences*
  - Difficulties talking to friends about what you've done together
  - *People saying you're not paying attention or are disorganised*
  - Forgetting where you've put things
  - *Forgetting what you planned to do*
  - Forgetting that the routine has changed
- 
- What have you found helpful for these sorts of memory difficulties?



# Episodic Memory Strategies

- Write down important information
- Use calendars, diaries, timetables
- Use prompts and alerts on smartphone calendars.
- Apps e.g. Brain in Hand
- Use mind-maps
- Repeat the information several times (before you've forgotten it from the first time)
- Use pictures
- *Discuss information , work out what it means and how it makes sense with what you already know*
- *Organise information*

## Experimenting with strategies

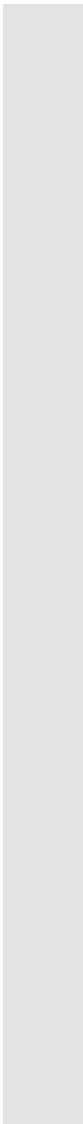
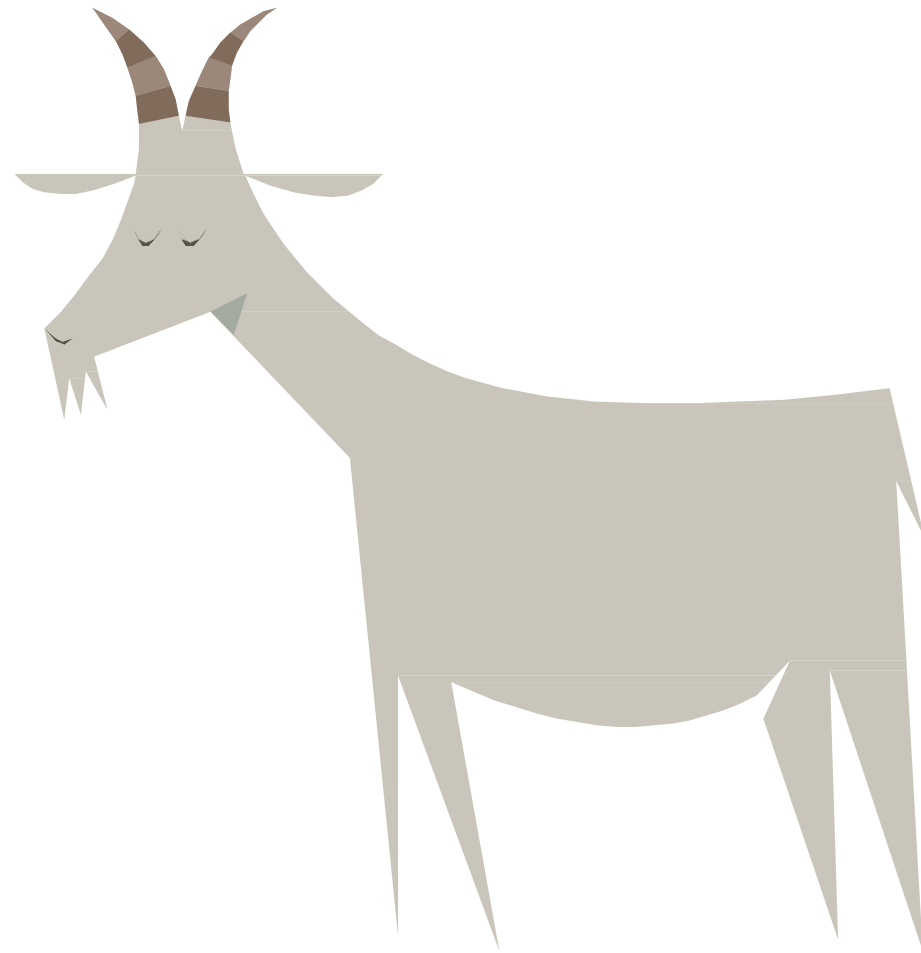
- It's important to know what works for you

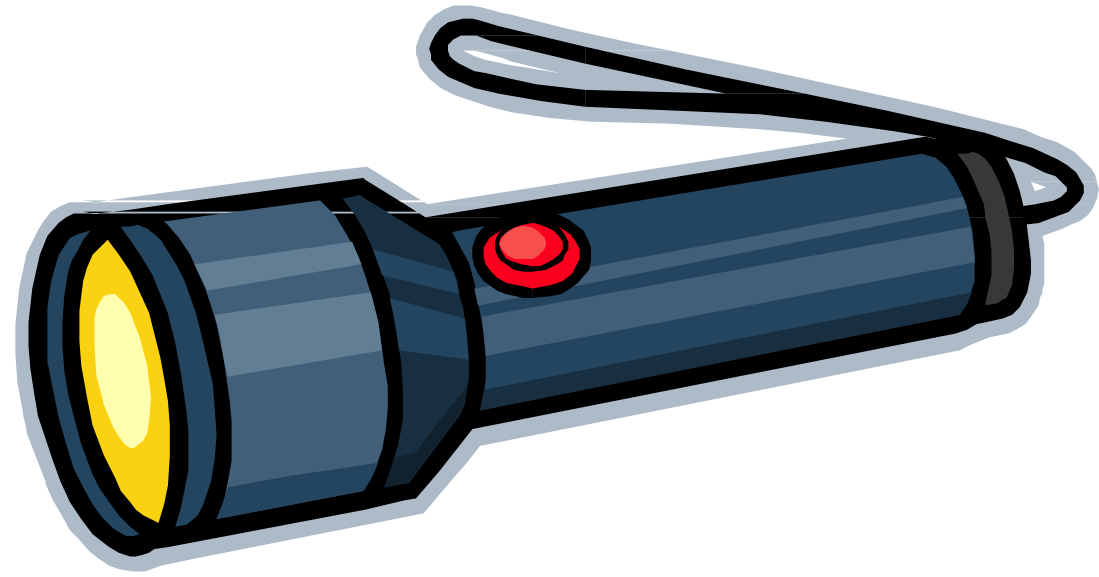
# Remembering things with repetition and pictures

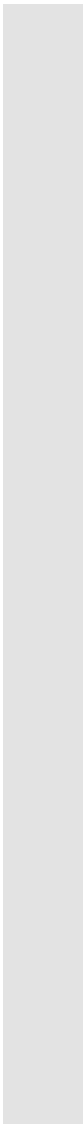
- Word List....
- Repetition
- Word List with Pictures

Word list with  
pictures....

-

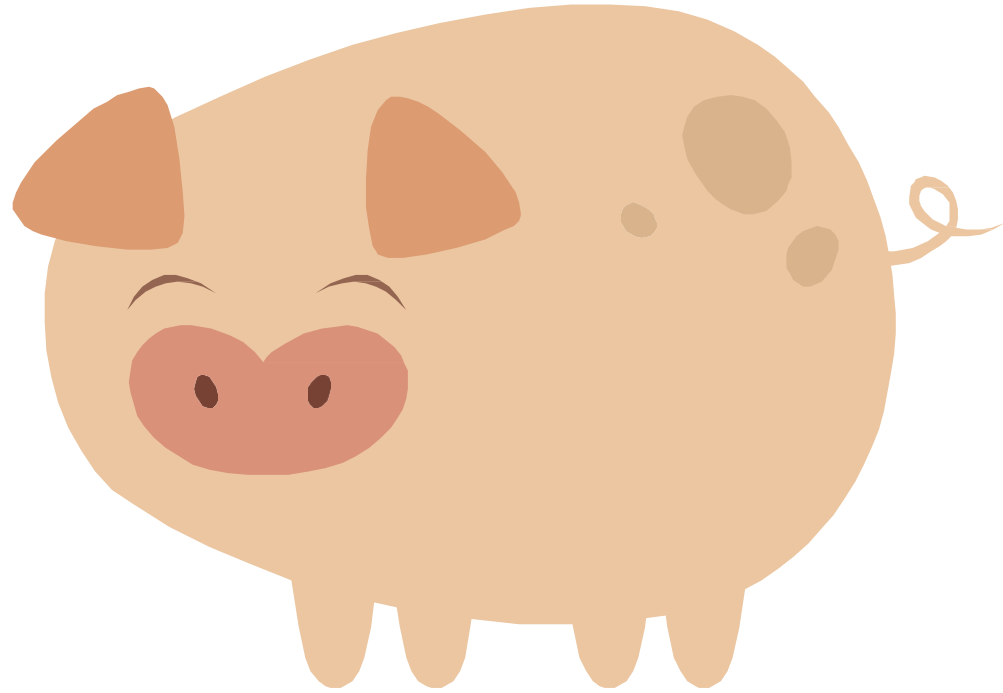


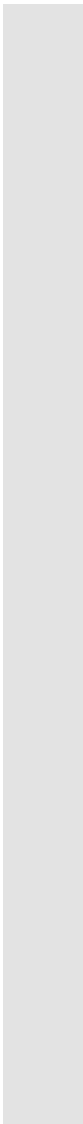


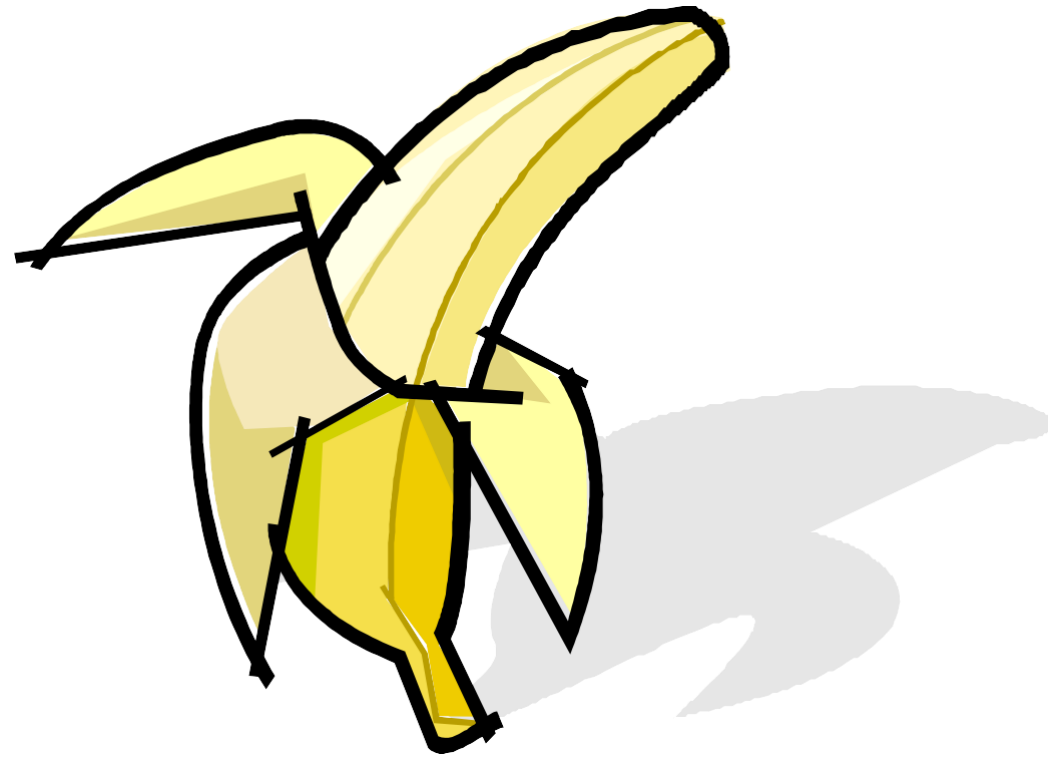


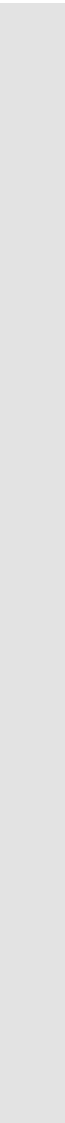










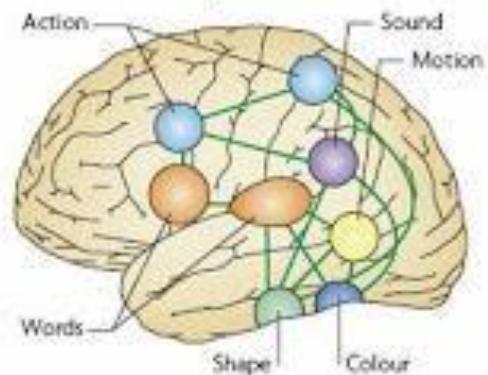


## Imagery...

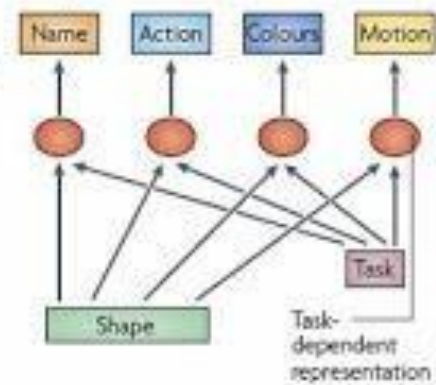
- Generally not recommended but does work for some individuals

# Semantic Memory

**a** Distributed-only view



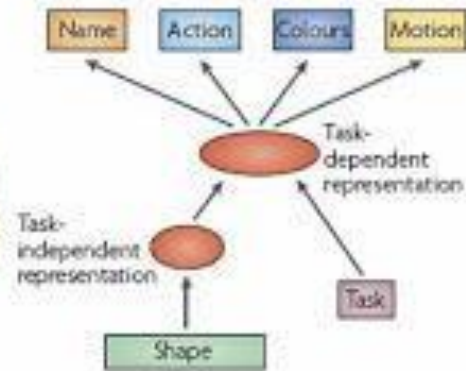
Gating architecture



**b** Distributed-plus-hub view



Convergent architecture



# Semantic Memory

- Memory for facts i.e. knowledge. E.g.
  - London is the capital of England
  - The chemical formula for water is H<sub>2</sub>O



## Semantic Memory Strategies

Difficulties with semantic memory:

- Studying is really difficult
  - *You may know something today but have forgotten it again by tomorrow or next week*
  - You may be able to remember what you did this morning, or you went to Ben's birthday party last week BUT can't seem to get facts to stay in your head
- 
- What have you found helpful for these sorts of memory difficulties?



# Semantic Memory Strategies

- Repeat the information several times (before you've forgotten it from the first time)
- *Use pictures*
- Organise information
- Discuss information , work out what it means and how it makes sense with what you already know
- If you find you make the same mistakes again and again - use multiple-choice and recognition to test your learning

# Experimenting with strategies

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Remembering  
those word  
lists!

- Without pictures....
- With pictures...

# Organisational strategy

- Organisational Strategy for word list

# Elaborative Encoding

-

## Amazing Inventions.....

Read the text and then try and remember it.

- A team of scientists from Japan has created a chewing gum that zaps your tongue with electricity to keep the flavour going forever. It's called unlimited electric gum and it uses the piezoelectric effect, which generates an electric charge when it is squeezed. When someone is chewing the gum, the taste buds in the tongue are tricked into experiencing different tastes. The gum consists of electrodes and a plastic film. When scientists tested the gum on 80 people, almost everyone reported a salty or bitter taste.

What was in  
the text?

•

## Amazing Inventions.....

Read the text , discuss it with your neighbours and then try and remember it.

- A team of scientists from Japan has created a chewing gum that zaps your tongue with electricity to keep the flavour going forever. It's called unlimited electric gum and it uses the piezoelectric effect, which generates an electric charge when it is squeezed. When someone is chewing the gum, the taste buds in the tongue are tricked into experiencing different tastes. The gum consists of electrodes and a plastic film. When scientists tested the gum on 80 people, almost everyone reported a salty or bitter taste.



What was in  
the text?

•

PQRST

- **P**review
- **Q**uestion
- **R**eview
- **S**tate
- **T**est

# Good study habits

- Plan ahead
- Be organised
- Keep hydrated
- Healthy diet
- Exercise



# Short-term and Working Memory

## Working Memory

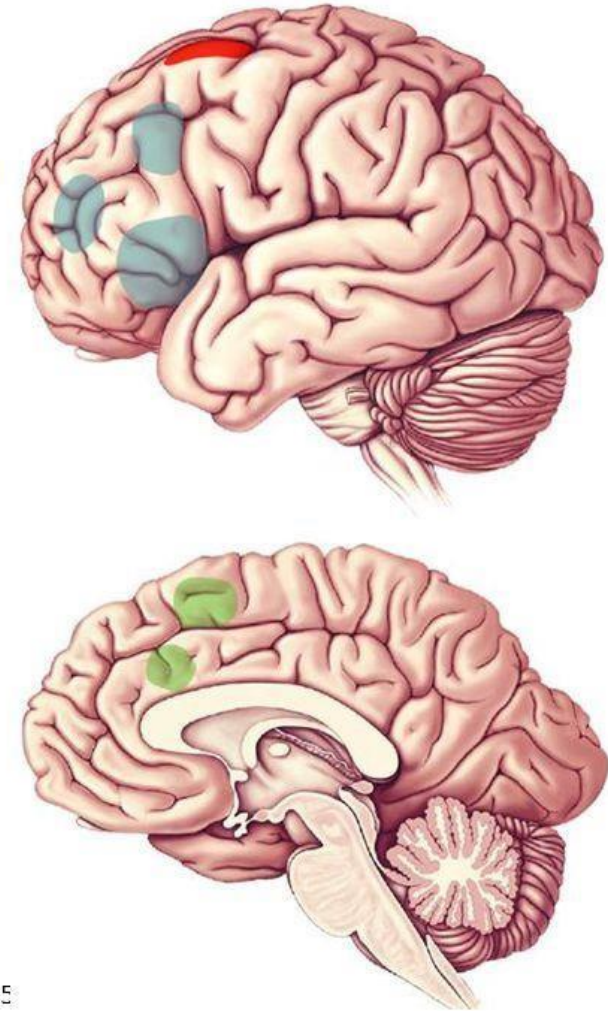
Imaging Working  
Memory in the  
Human Brain

Numerous areas in  
prefrontal cortex  
are involved in  
working memory

Face Only

Face & Spatial

Spatial Only



# Short-term and Working Memory

- Memory for up to 1 minute
- Being able to hold something in mind e.g. a phone number, instructions



## Short-term and Working Memory Strategies

Difficulties with short-term and working memory:

- Forgetting instructions or what's just been said
  - *Having to keep re-reading things (even when you've understood them)*
  - Being impulsive ("I have to say it before I forget it")
  - *Repeating mistakes*
  - Getting lost part-way through a task
  - *Difficulties with literacy and numeracy (particularly younger children)*
- 
- What have you found helpful for these sorts of difficulties?

## Short-term and Working Memory Strategies

- Picking out the key words
- Writing things down
- Saying things over and over in your head
- Having step-by-step guides to things
- “Guide to working memory in the classroom”

## Remembering instructions

How instructions are often presented:

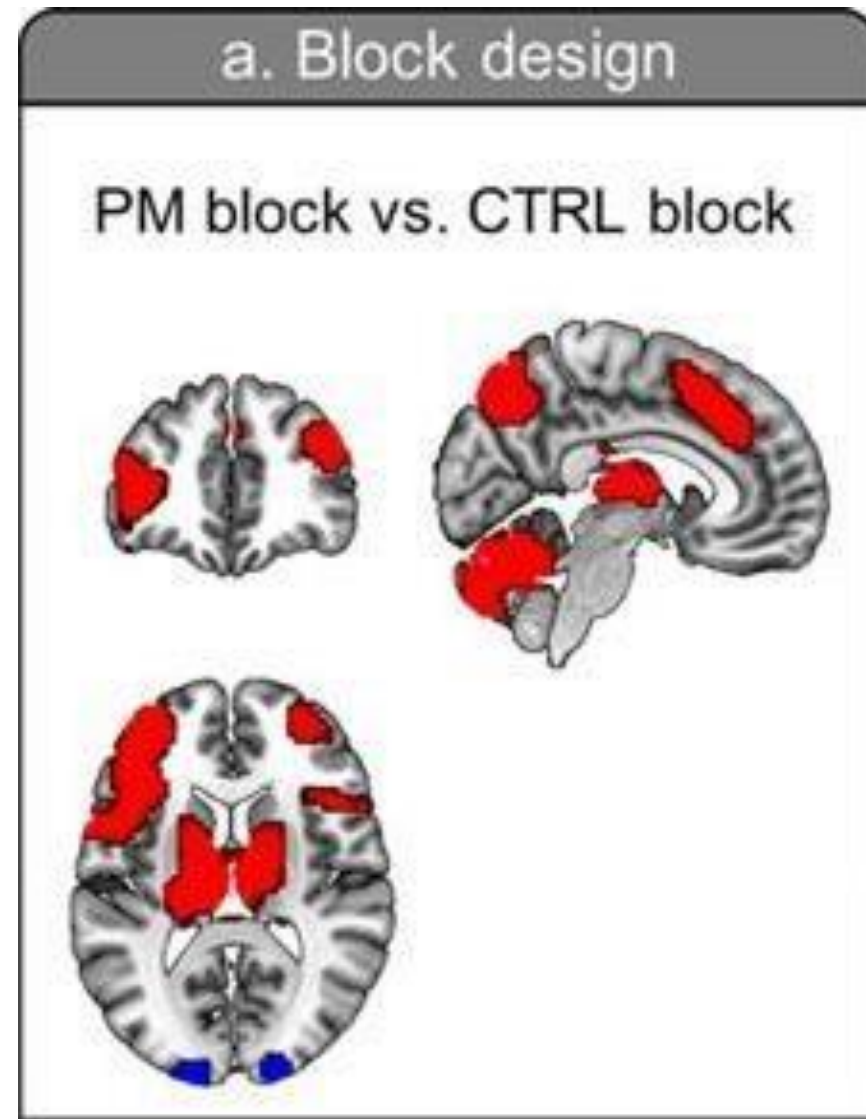
- Please can you go to the cupboard, the one at the end of the corridor, and find me one of those fancy notebooks which should be on the bottom shelf, a couple of pencils which are in there somewhere too, and one of the pairs of scissors – I think they have a blue handle.



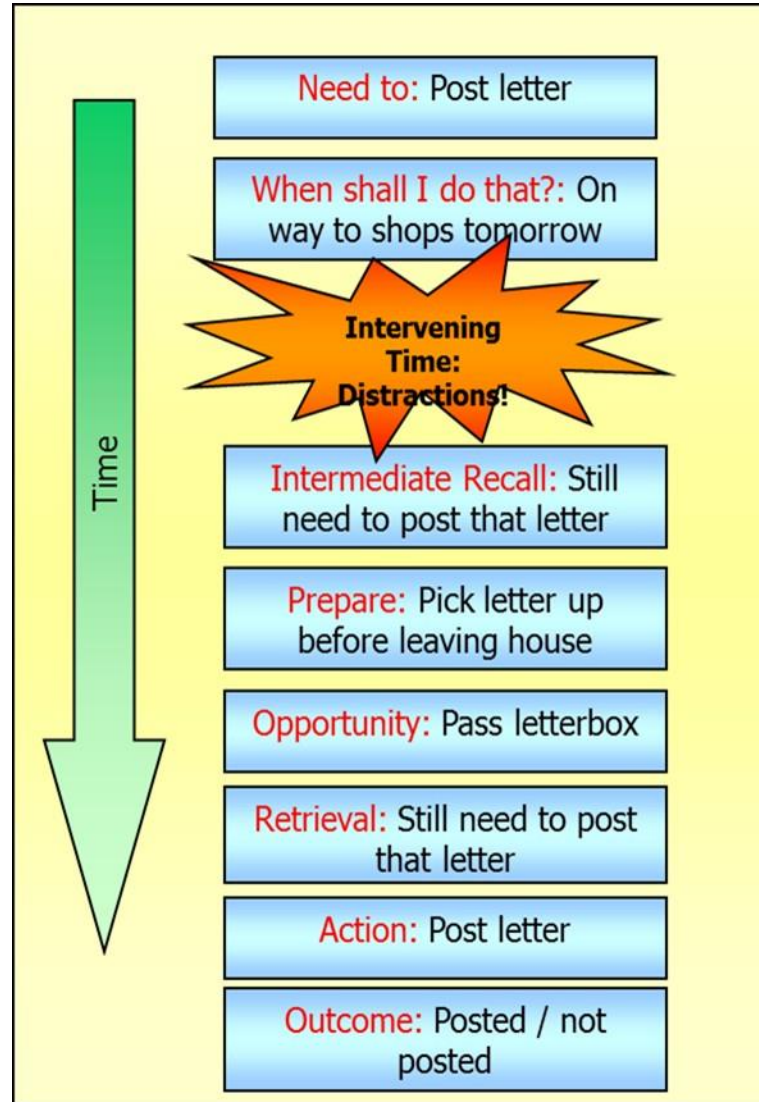
# Picking out key words

- Please can you go to the **cupboard**, the one at the **end** of the corridor, and find me one of those fancy **notebooks** which should be on the bottom shelf, a **couple of pencils** which are in there somewhere too, and **one** of the **pairs of scissors** – I think they have a blue handle.
- **End cupboard**
- **Notebook**
- **2 x pencils**
- **1 x scissors**

# Prospective Memory



# Prospective Memory





## Prospective memory strategies

- Using smartphone/watch to give prompts
- Can have instructions OR can be “content-free”
- Text messages saying “STOP” – which reminds you to think about whether you had any things you needed to do
- Acts as a cue to complete a specified task and may help improve the skills itself

Always  
remember....

- Everyone forgets things!
- Memory is affected by lots of different things, e.g.:
  - Mood
  - Stress
  - Fatigue
  - Motivation
  - Whether you've eaten, slept
- One of the best ways to help your memory is to be kind to yourself