



# Memory Techniques

Supporting Success at  
Knightswood Secondary School



**Study the following picture for  
one minute...**

Hillhead Kelvinbridge St. George's Cross Cowcaddens

Kelvinhall

Buchanan Street

Partick

St. Enoch

River Clyde

Govan

Bridge Street

Inner Circle →

← Outer Circle

Ibrox

Cessnock

Kinning Park

Shields Road

West Street



# Memory is the residue of thought

- If you aren't thinking (or the thinking is too easy) you won't remember it.



# Working Memory



- Working memory is 'where' you think
- It has limited capacity and can't be increased
- If overloaded you don't remember most of what you have been told / read / heard

# Long Term Memory



- Long term memory is almost **unlimited**
- Can be drawn upon and used automatically without any effort
- The more things you store in long-term memory, the more working memory you have to think
- Information only goes to long-term memory with **lots of repetition and practice**

# Working & long-term memory



$$7 \times 7 =$$

$$17 \times 7 =$$

$$1771771 \times 7711 =$$

# Long Term Memory

Lots of very complex tasks are already automatic to you **because you have practised them so often.**

You do them without thinking and they don't use up working memory (brain power). These include: walking; talking; reading; eating; times tables; tying your laces; etc.

When you start to drive a car you need lots of working memory. Once you have practised lots you drive without thinking.

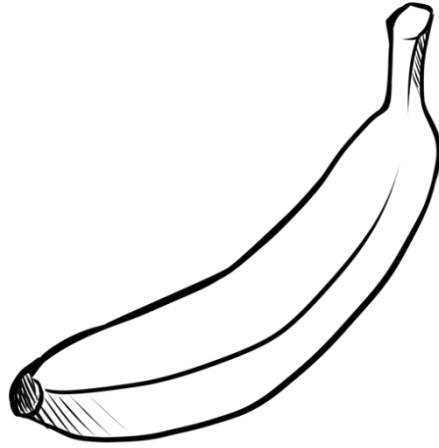


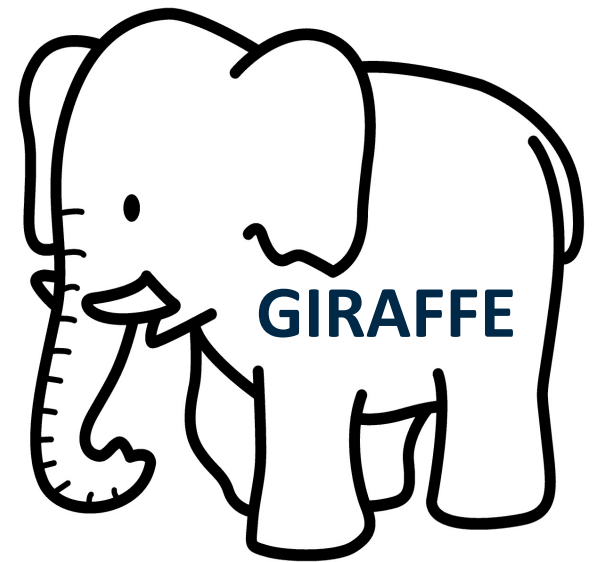
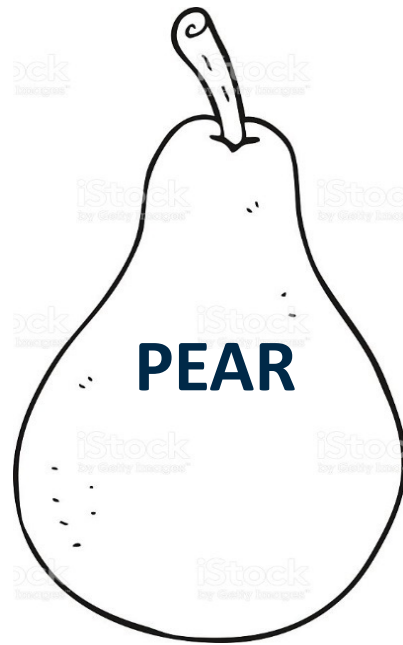
# Long Term Memory



This task will show you how automatic reading has become to you.

**Name these 3 objects as quickly as you can?**





# Developing Long Term Memory

- Recalling details from memory without supporting notes or resources (retrieval) is better than copying / highlighting...

# 2 minute task



- Now try to remember:
- The number of stops on the Glasgow Subway Line
- The order of the stops
- The names of the stops

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# Knowledge Organisers

A Timeline of Apartheid in South Africa		Anti-Apartheid Activists	
1948	1. <b>National Party</b> is elected into government and creates apartheid	1. Nelson Mandela	Lawyer, defendant, prisoner, President
1952	2. The African National Congress (ANC) launch the <b>Defiance Campaign</b>	2. Winnie Madikizela	South Africa's first black social worker
1955	3. <b>Mandela</b> is put on trial for treason at Pretoria	3. Walter Sisulu	African in <b>Robben Island prison</b> to 1989
1960	4. <b>Sharpeville Massacre</b> : 69 South Africans shot and killed by police	4. Chief Albert Luthuli	<b>President</b> of the <b>ANC</b> from 1952-1967
1960	5. Mandela and <b>ANC</b> burn their <b>passbooks</b> , and <b>100,000 Africans</b> join in	5. Oliver Tambo	<b>President</b> of the <b>ANC</b> from 1967-1992
1960	6. The National Party <b>apartheid government</b> ban the <b>ANC</b>	6. Ahmed Kathrada	Indian in <b>Robben Island prison</b> to 1989
1961	7. Mandela forms <b>Mkhonto we Sizwe, Spear of the Nation</b> , for sabotage	7. Desmond Tutu	Archbishop won 1984 <b>Nobel Peace Prize</b>
1963-4	8. <b>Mandela</b> is put on trial at Rivonia for <b>treason</b> , violence and sabotage	8. FW De Klerk	President who <b>ended apartheid</b> in 1990
1964-1990	9. <b>Mandela</b> is put in <b>Robben Island prison</b> with Sisulu & Kathrada	<b>MANDELA QUOTATIONS</b>	
1969-1978	10. Mandela's son Thembi and mother die, and daughter Zeni marries	<b>Freedom Charter, 1955</b>	<i>"A free, democratic South Africa belongs to all who live in it, black, white and Indian. Every man and woman shall have the right to vote. The people shall govern!"</i>
1976	11. <b>Soweto Uprising</b> : hundreds of children shot and killed by police	<b>1. Rivonia Trial Opening</b>	<i>"Why did we form Umkhonto we Sizwe? What were we, the leaders of our people to do? Were we to give in to force, or were we to fight it and if so, how?"</i>
1990	12. <b>Mandela</b> is released from prison by FW de Klerk	<b>2. Middle (20<sup>th</sup> April 1964)</b>	<i>"Africans want to be paid a living wage... African men want their women and children to live with them... African women want to be allowed out after 11"</i>
1993	13. <b>Mandela</b> wins the <b>Nobel Peace Prize</b>	<b>3. Rivonia Trial Closing</b>	<i>"I have fought against white domination, and I have fought against black domination."</i>
1994	14. <b>Mandela</b> is elected first black <b>President</b> in South Africa's history	<b>4. Rivonia Trial Ending</b>	<i>"Freedom is an ideal which I hope to live for and achieve. But if needs be, it is an ideal for which I am prepared to die."</i>
1995	15. <b>South Africa</b> win the <b>Rugby World Cup</b> , held in South Africa	<b>LEGAL VOCABULARY</b>	
<b>POLITICAL VOCABULARY</b>		<b>1. defendants</b>	The people <b>charged</b> in a trial
<b>1. apartheid</b>	racial segregation of schools, hospitals, parks, beaches, buses	<b>2. verdict</b>	The <b>decision</b> if the defendant is <b>guilty</b> or <b>not guilty</b>
<b>2. segregation</b>	systematic separation	<b>3. sentence</b>	The <b>punishment</b> for the crime if the verdict is guilty
<b>3. government</b>	the political party with the most MPs in parliament	<b>4. judge</b>	An experienced lawyer who <b>decides</b> the <b>sentence</b>
<b>4. political party</b>	a group organising to win an <b>election</b> to parliament	<b>5. jury</b>	inexperienced people who <b>decide</b> the <b>verdict</b>
<b>5. oppression</b>	cruel denial of rights		
<b>6. sabotage</b>	<b>destruction of property</b> , avoiding murder		
<b>7. strike</b>	A <b>refusal to work</b> in protest		
<b>8. authorities</b>	the <b>government</b> , state or people in charge		
<b>9. defiance</b>	<b>refusal to obey orders</b>		
<b>10. treason</b>	<b>illegal violence</b> against the <b>government</b>		

# Chunking



## Ten Quotations from MacBeth:

1. “Stars, hide your fires, let not light see my black and deep desires”
2. “He’s here in double trust: first, as I am his kinsman and his subject, strong both against the deed.”
3. “Vaulting ambition only overleaps itself.”
4. “Is this a dagger which I see before me, the handle toward my hand.”
5. “Hear it not, Duncan; for it’s a knell that summons you to heaven or hell”
6. “A voice cried ‘sleep no more! MacBeth does murder sleep”
7. “Will all great Neptune’s ocean wash this blood clean from my hand.”
8. “I am in blood stepped in so far that, should I wade no more, returning were as tedious as go over”
9. “Out, out, brief candle” Life’s but a walking shadow”
10. “I bear a charmed life, which will not yield to one of woman born.”



# Chunking



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# Chunking



Ten words are easier to remember than ten quotations!

1. Stars
2. Trust
3. Ambition
4. Dagger
5. Hear
6. Sleep
7. Neptune
8. Blood
9. Candle
10. Charmed

# Mnemonics

B

BRACKET(PARENTHESES)

O

ORDER(i.e. POWERS, SQUARE ROOTS, ETC.)

D

DIVISION

M

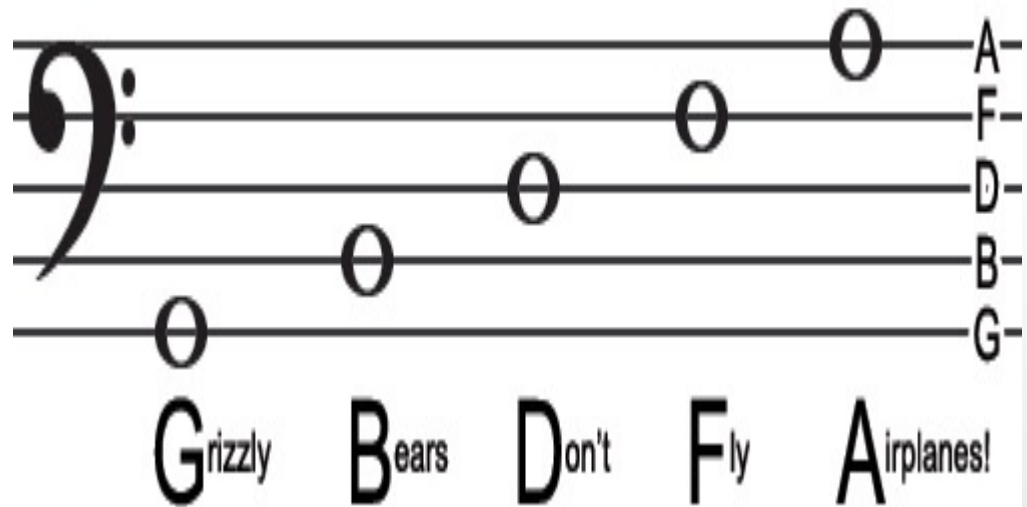
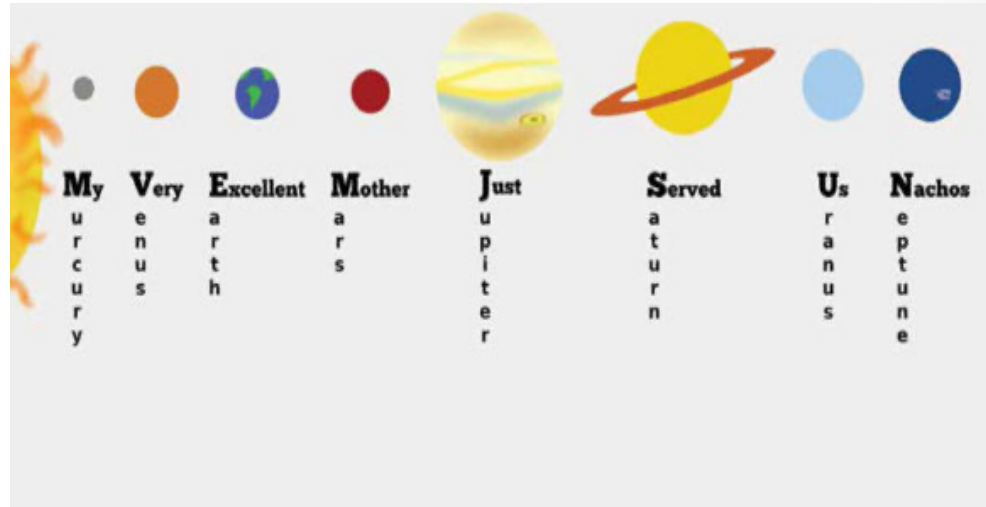
MULTIPLICATION

A

ADDITION

S

SUBTRACTION

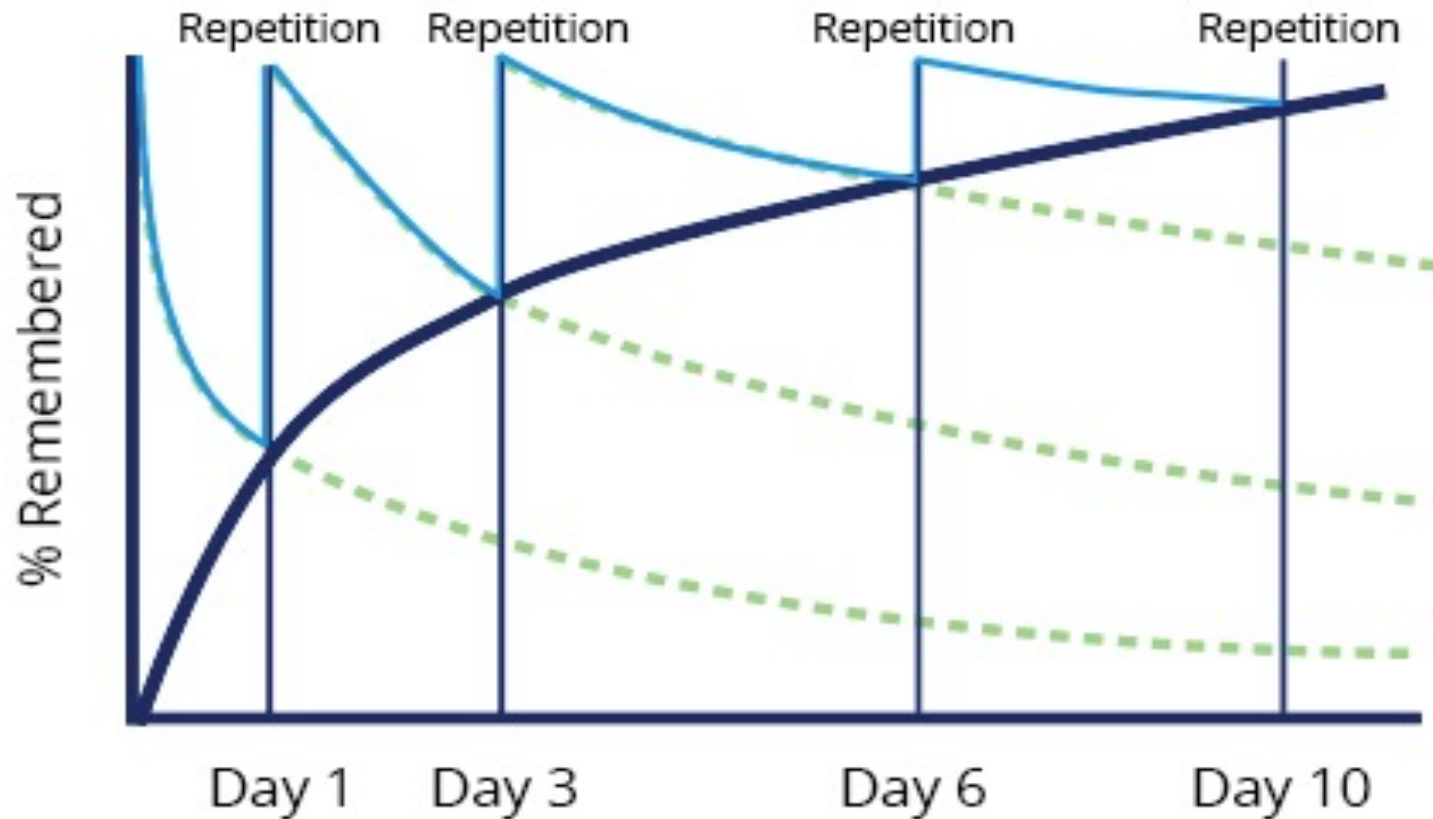


# Developing Long Term Memory

- It is best to revisit learning when you are just about to forget what you learnt
- The harder it is to remember, the more likely it is to stick!
- This is known as **distributed or spaced practice.**

# Developing Long Term Memory

## Spaced Repetition



# More information...



For those who would like to look in to this more, some helpful resources are noted below:

**The Learning Scientists:** ([www.learningscientists.org](http://www.learningscientists.org) )

**Inner Drive:** ([www.innerdrive.co.uk](http://www.innerdrive.co.uk))

**Learning How to Learn: a guide for kids and teens**