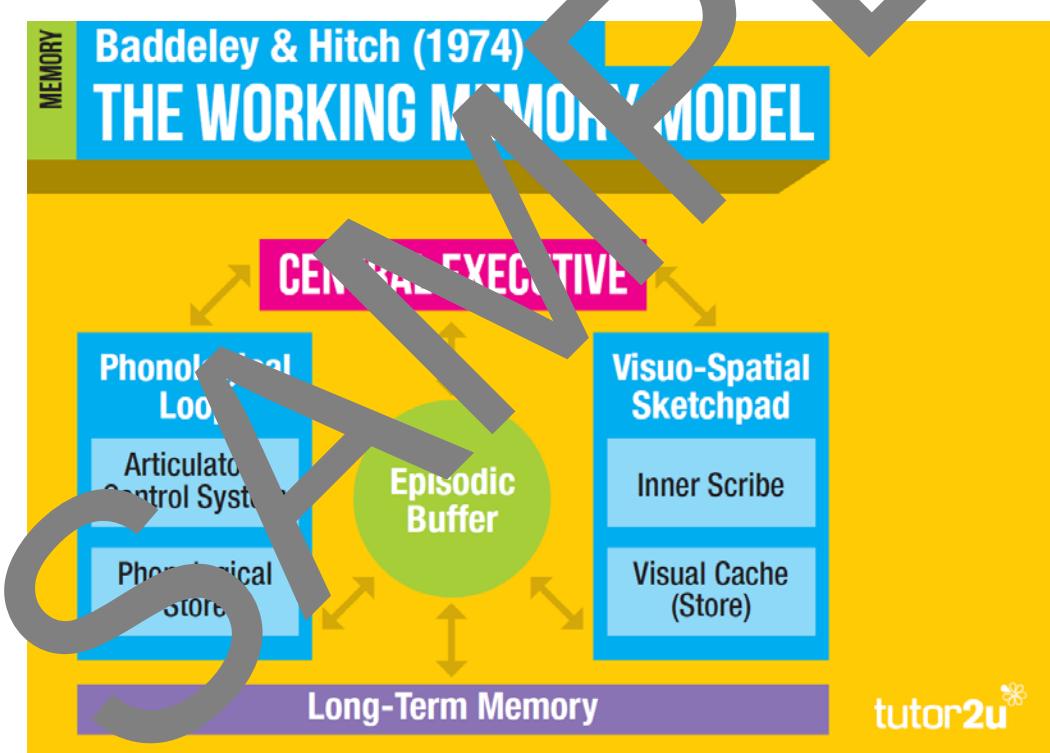


Memory

The Working Memory Model



tutor2u Full Lesson PowerPoint

Jenness (1932)

- Jenness (1932) was one of the first psychologists to study conformity. His experiment used an **ambiguous situation** involving a glass bottle filled with beans. He asked participants individually to estimate how many beans the bottle contained.
- Jenness then put the group in a room with the bottle, and asked them to provide a group estimate through discussion.
- **Question:** What do you think Jenness (1932) found?
- **Task:** Answer questions 1 and 2 on handout provided.



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Full Lesson PowerPoint Key

- **Green** = Key Word or Researcher
- **Blue** = Question / Discussion
- **Purple** = Task / Activity

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Essay

- Last lesson you were told to prepare the following essay question:

Outline and evaluate the multi-store model of memory. (12 marks)

- At the start of the lesson you will have 15 minutes to complete this question.

15 Minutes

If I'm feeling nice I might let you use a plan which I've prepared on the next slide.

Essay

- Last lesson you were told to prepare the following essay question:

Outline and evaluate the multi-store model of memory. (12 marks)

15 Minutes

Outline (A01)

Outline:

- Sensory Register (Capacity, Duration, Coding)
- Short-Term Memory (Capacity, Duration, Coding)
- Long-Term Memory (Capacity, Duration, Coding)

The processes involved (e.g. attention, rehearsal etc.) and how information flows through the model.

Evaluation (A03)

Strengths:

- Clive Wearing
- Laboratory Evidence
 - Miller/Jacobs or Bahrick

Weaknesses:

- Patient KF

Be clear on why the above points are either strengths or limitations.

Sample Essay – Spot the Mistakes

- Task: Read the essay on your handout and highlight the knowledge (AO1) and evaluation (AO3). Also, circle and correct any mistakes.

5 Minutes

SCAN

Task: Read the following essay and highlight the knowledge (AO1) and evaluation (AO3) in different colour. Also, circle and correct any mistakes.

Outline and evaluate the multi-store model. (12 marks)

This model of memory states that our memory is made up of three separate stores; sensory memory, short-term memory (STM) and long-term memory (LTM). Each store has a different capacity and duration. Information from the environment first enters our STM. If we pay attention to this information, it will be passed onto the Sensory Memory. Information that is not processed in this store gets passed onto our LTM, and the flow of information through the three stores is sequential.

An important aspect of this model is that it distinguishes between STM and LTM, it does not believe our memory is just one unitary store. Evidence in support of this comes from a man who suffered brain damage – Clive Wearing. After contracting a virus, Clive a highly educated man was left with major memory disruption. However, Clive's LTM was intact as he could remember his wife, and he remembered how to eat drink, but he was not able to make new memories which suggest his STM was disrupted. It seemed that Clive was not able to pass information from his STM to his LTM. Also many have criticised the model for being oversimplified.

Outline and evaluate the multi-store model. (12 marks)

This model of memory states that our memory is made up of three separate stores; sensory memory, short-term memory (STM) and long-term memory (LTM). Each store has a different capacity and duration. Information from the environment first enters our STM. If we pay attention to this information, it will be passed onto the sensory memory. Information that is rehearsed in this store gets passed onto our LTM, and the flow of information through the three stores is sequential.

A01

An important aspect of this model is that it distinguishes between STM and LTM, it does not believe our memory is just one unitary store. Evidence in support of this comes from a man who suffered brain damage - Clive Wearing. After contracting a virus, Clive a highly educated man was left with major memory disruption. However, Clive's LTM was intact as he could remember his wife and remembered how to eat and drink, but he was not able to make new memories which suggest his STM was disrupted. It seemed that Clive was unable to pass information from his STM to his LTM. Also many have criticised the model for being oversimplified.

A03

Outline and evaluate the multi-store model. (12 marks)

This model of memory states that our memory is stores; sensory memory, short-term memory (STM) (LTM). Each store has a different capacity and duration. Information from the environment first enters our STM. If we pay attention to this information, it will be passed onto the Sensory memory. Information that is rehearsed in this store gets passed onto our LTM, and the flow of information through the three stores is sequential.

What about coding?

An important aspect of this model is that it distinguishes between STM and LTM, it does not believe our memory is just one unitary store. Evidence in support of this comes from a man who suffered brain damage - Clive Wearing. After contracting a virus, Clive a highly educated man was left with major memory disruption. However, Clive's LTM was intact as he could remember his wife and remembered how to eat and drink, but he was not able to make new memories which suggest his STM was disrupted. It seemed that Clive was unable to pass information from his STM to his LTM. Also many have criticised the model for being oversimplified.

Holistic Marking

- Task: You will now work in pairs to assess this essay using the peer marking grid. Before you attempt to assess this essay, we will watch a short video which explores holistic marking.

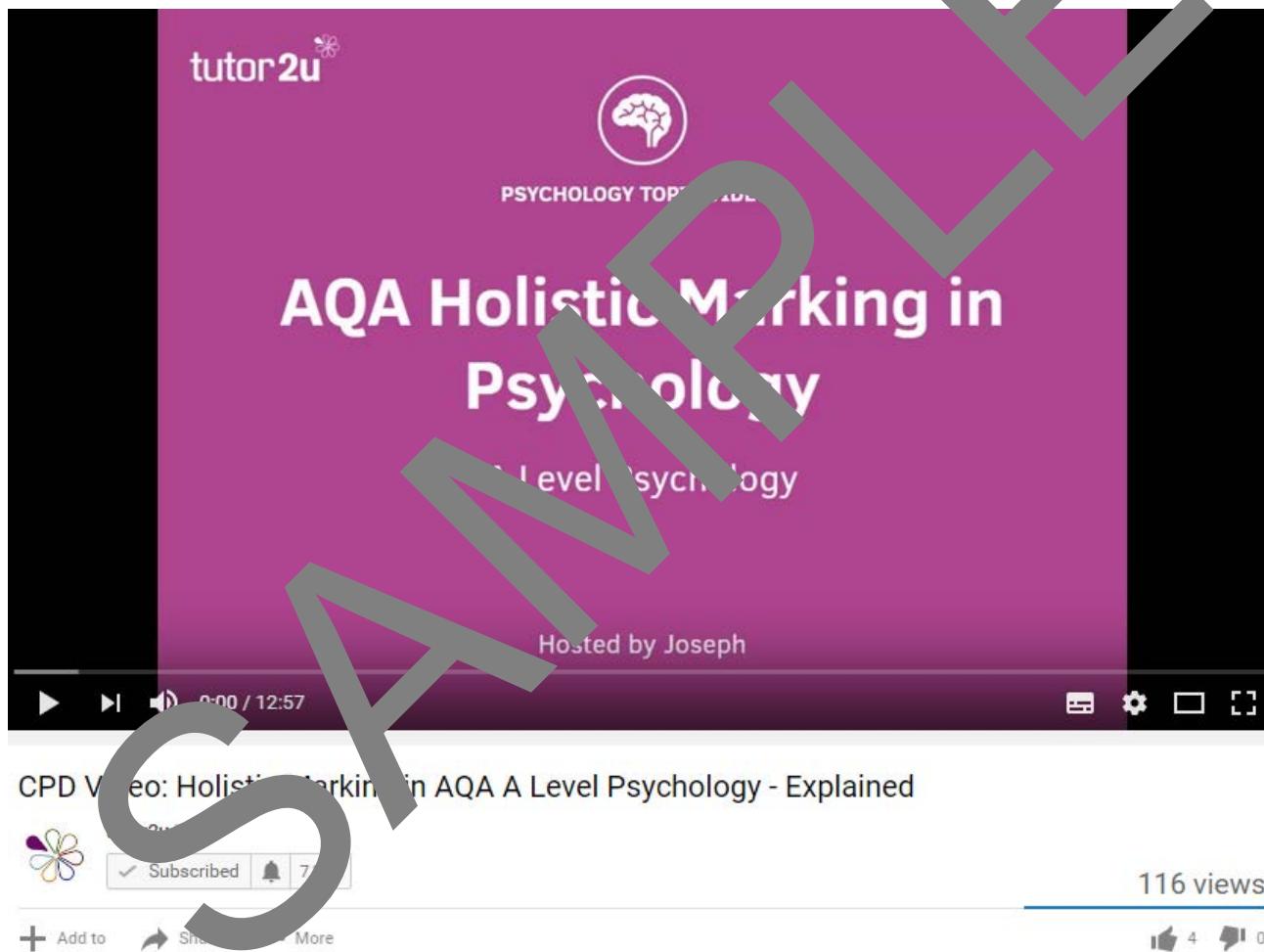
SAMPLE

Names of student being assessed:			Names of peer-markers:					
Essay								
Level	A*-A	A Level	Knowledge	Accuracy	Evaluation	Focus	Specialist terminology	
10+	10-9	13-16	Well-detailed	Accurate	Thorough and effective	Clear, coherent and focussed	Used effectively	
3	7-6	9-12	Evident (reasonably detailed)	Occasional inaccuracies	Mostly effective	Mostly clear and organised	Mostly used effectively	
	4-6	5-8	Present (lacks detail)	Numerous inaccuracies	Partly effective	Lacks clarity, accuracy and organisation	Used inappropriately on occasions	
1	1-3	1-4	Limited (limited/absent knowledge)	Highly inaccurate	Limited, not effective or absent	Lacks clarity, many inaccuracies and poorly organised	Either absent or inappropriately used	
0	0	0	None	None	None	None	None	
Overall Mark Band:			Mark Awarded: /12 or 16			EBI (Even better if):		
WWW (What went well):								

*Words in marking grid in bold font are key words used in the mark scheme, whereas those in non-bold font are inferred.

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Peer Assessment



Peer Assessment

- Task: Read the essay in pairs. Once you have read the essay, decide which mark band the essay fits into for the five different columns. Once you have done this, decide on an overall mark band and mark.
- The most important aspect of this task is the feedback you provide.
- Write one or two EBI's (Even better if targets) explaining how the person can move up to the next mark band. Remember to be specific!

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AQA A-LEVEL PSYCHOLOGY
PAIR MARKING GRID

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Names of peer-markers:			Names of peer-markers:					
Essay								
Level	A Level	A Level	Knowledge	Accuracy	Evaluation	Focus	Specialist terminology	
10-12	10-12	13-16	Well-detailed	Accurate	Thorough and effective	Clear, coherent and focussed	Used effectively	
3	7-9	9-12	Evident (reasonably detailed)	Occasional inaccuracies	Mostly effective	Mostly clear and organised	Mostly used effectively	
	4-6	5-8	Present (lacks detail)	Numerous inaccuracies	Partly effective	Lacks clarity, accuracy and organisation	Used inappropriately on occasions	
1	1-3	1-4	Limited (limited/absent knowledge)	Highly inaccurate	Limited, not effective or absent	Lacks clarity, many inaccuracies and poorly organised	Either absent or inappropriately used	
0	0	0	None	None	None	None	None	

Overall Mark Band: _____ Mark Awarded: /12 or 16 EBI (Even better if): _____

WWW (What went well): _____

*Words in marking grid in bold font are key words used in the mark scheme, whereas those in non-bold font are inferred.

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AQA A-LEVEL PSYCHOLOGY

PEER MARKING GRID

Name on essay:

Names of peer-markers:

Essay title:

Level	AS Level	A Level	Knowledge	Accuracy	Evaluation	Conclusion	Specialist terminology
4	10-12	13-16	Well-detailed	Accurate	Thorough and effective	Clear, coherent and focussed	Used effectively
3	7-9	9-12	Evident (reasonably detailed)	Occasional inaccuracies	Mostly effective	Mostly clear and organised	Mostly used effectively
2	4-6	5-8	Present (lacks detail)	Numerous inaccuracies	Partly effective	Lacks clarity, accuracy and organisation	Used inappropriately on occasions
1	1-3	1-4	Limited (limited/absent knowledge)	Highly inaccurate	Limited, not effective or absent	Lacks clarity, many inaccuracies and poorly organised	Either absent or inappropriately used
0	0	0	None	None	None	None	None

Overall Mark Band: 2

Mark Awarded: ~4 /12 or

WWW (What went well):

Question: What was good about this essay?

EBI (Even better if):

Question: What would the author of this essay need to do in order to achieve a mark band three?

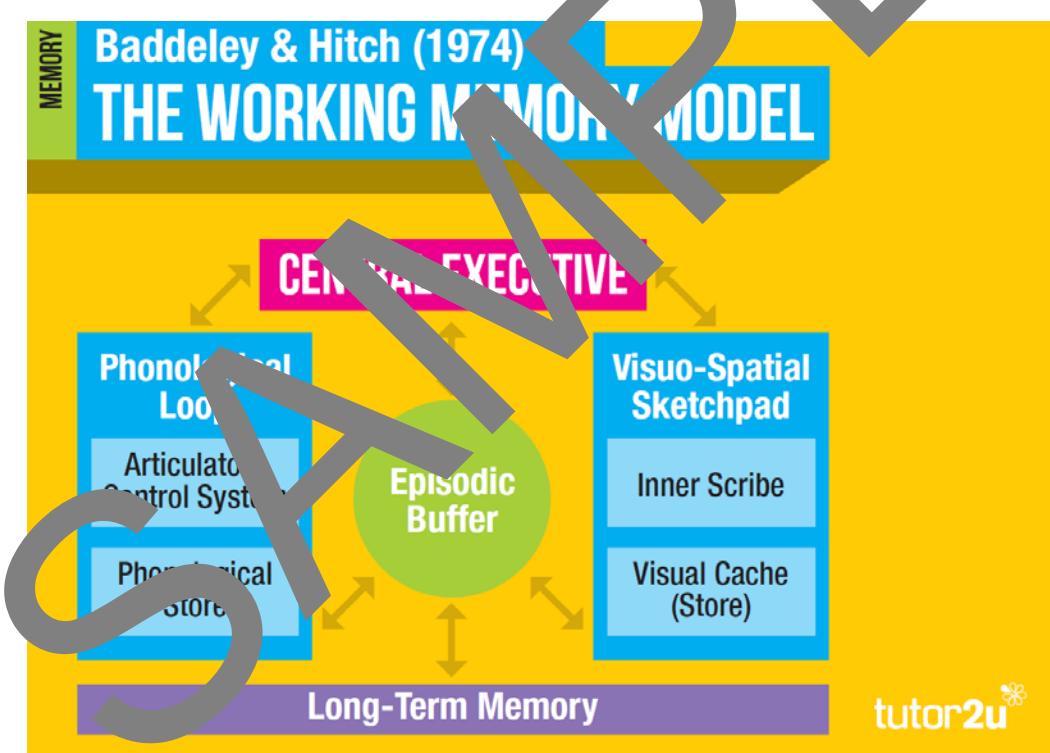
*Words in marking grid in bold font are key words from the mark scheme, whereas those in non-bold font are inferred.

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Memory

The Working Memory Model



Multi-Store Model

Last lesson, we examined Patient KF, who posed a problem for the multi-store model.

Questions:

- **What type of memory was impaired for Patient KF?**
- **What does this suggest about the nature of STM?**
- **How might we overcome this limitation?**

SAMPLE



Working Memory Model

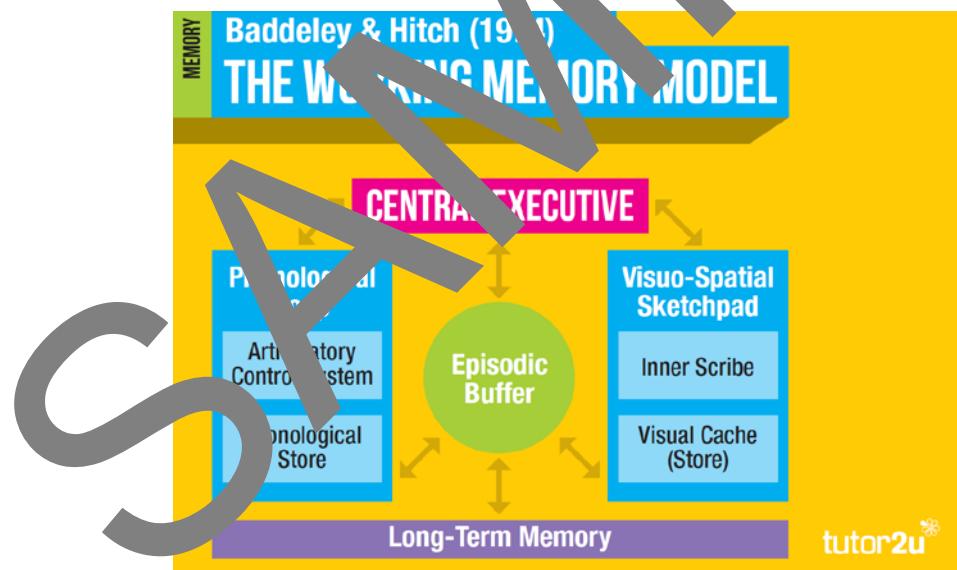
Lesson Objectives:

- To **outline** the structure of the Working Memory Model.
- To **describe** each of the components of the Working Memory Model.

SA
MP
LE

Working Memory Model

- As a result of the issues with the Multi-Store Model, Baddeley and Hitch proposed the Working Memory Model.
- Task: You will be provided with an overview of the model. You don't need to make any notes or write anything down, just listen.



CENTRAL EXECUTIVE

Phonological Loop

Articulatory Control System

Phonological Store

Visuo-Spatial Sketchpad

Inner Scribe

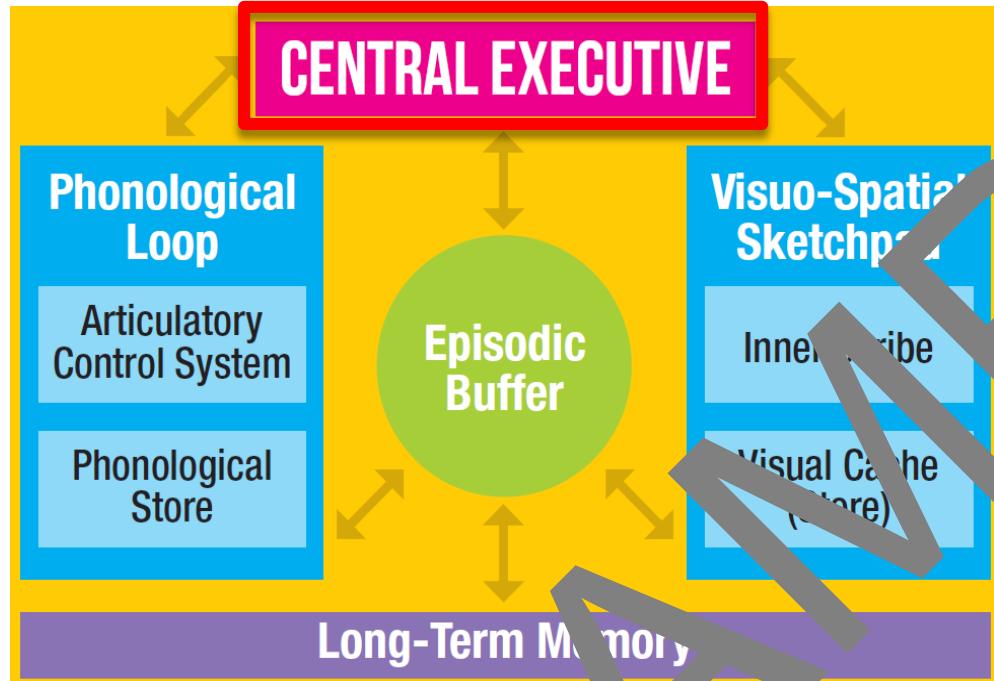
Visual Cache (Store)

Episodic Buffer

Sample

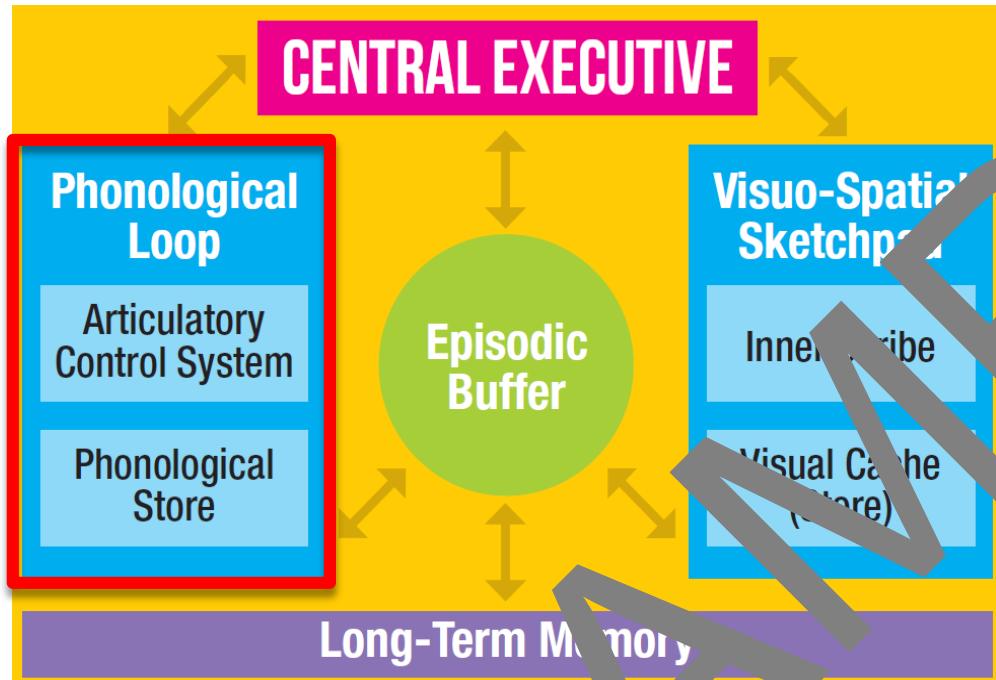
Long-Term Memory

Central Executive



- The Central Executive is sometimes known as the 'boss' of the working memory model.
- It controls attention and directs information to the two slave systems.
- It has a very limited capacity.

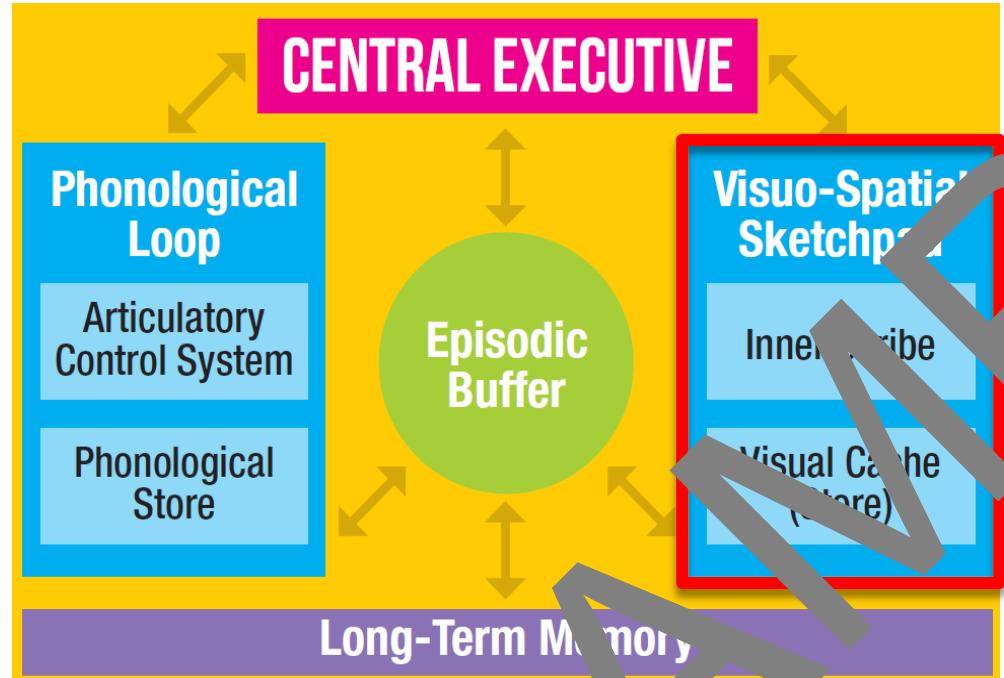
Phonological Loop



The phonological loop deals with auditory information and has two sub-components:

- **Articulatory Control Process (Inner Voice)**
 - Allows for sub-vocal repetition of items in the phonological store, otherwise known as maintenance rehearsal.
- **Phonological Store (Inner Ear)**
 - Stores acoustic items (speech based sounds) for a short period of time.

Visuo-Spatial Sketchpad



The visuo-spatial sketchpad deals with visual and spatial tasks (like planning a journey to school in your head). It also consists of two sub-components:

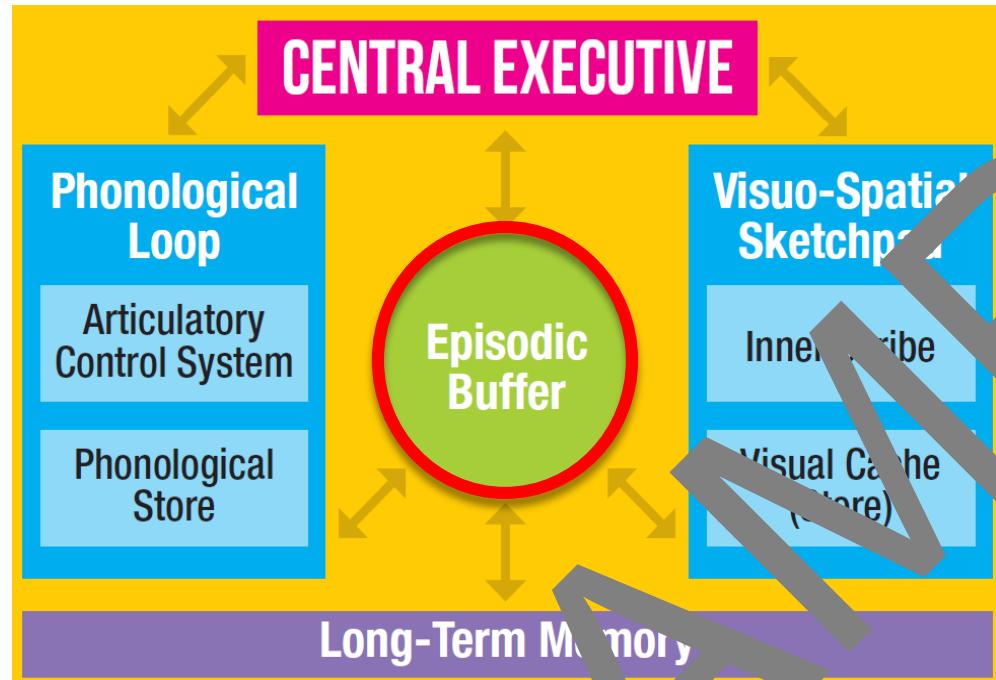
Inner Scribe

- Deals with the spatial relationship between objects.

Visual Cache

- Stores visual information (e.g. form, shape and colour).

Episodic Buffer

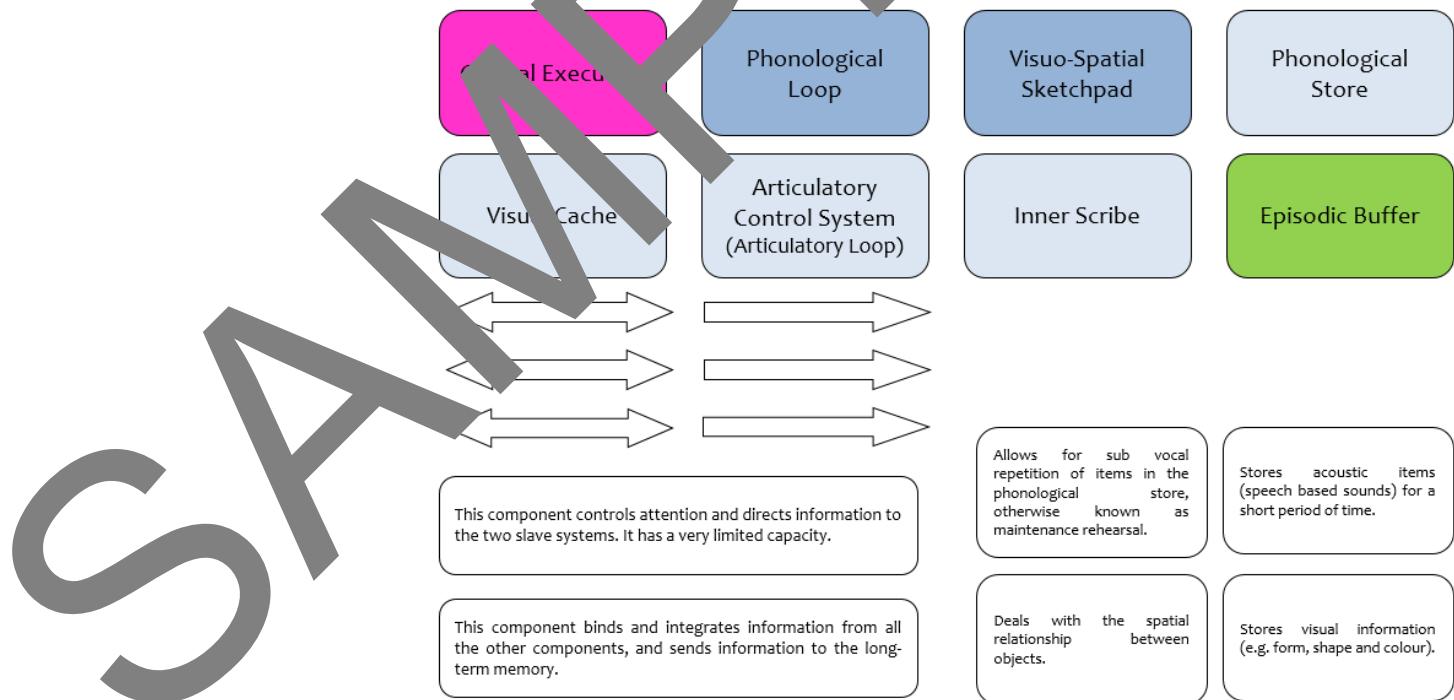


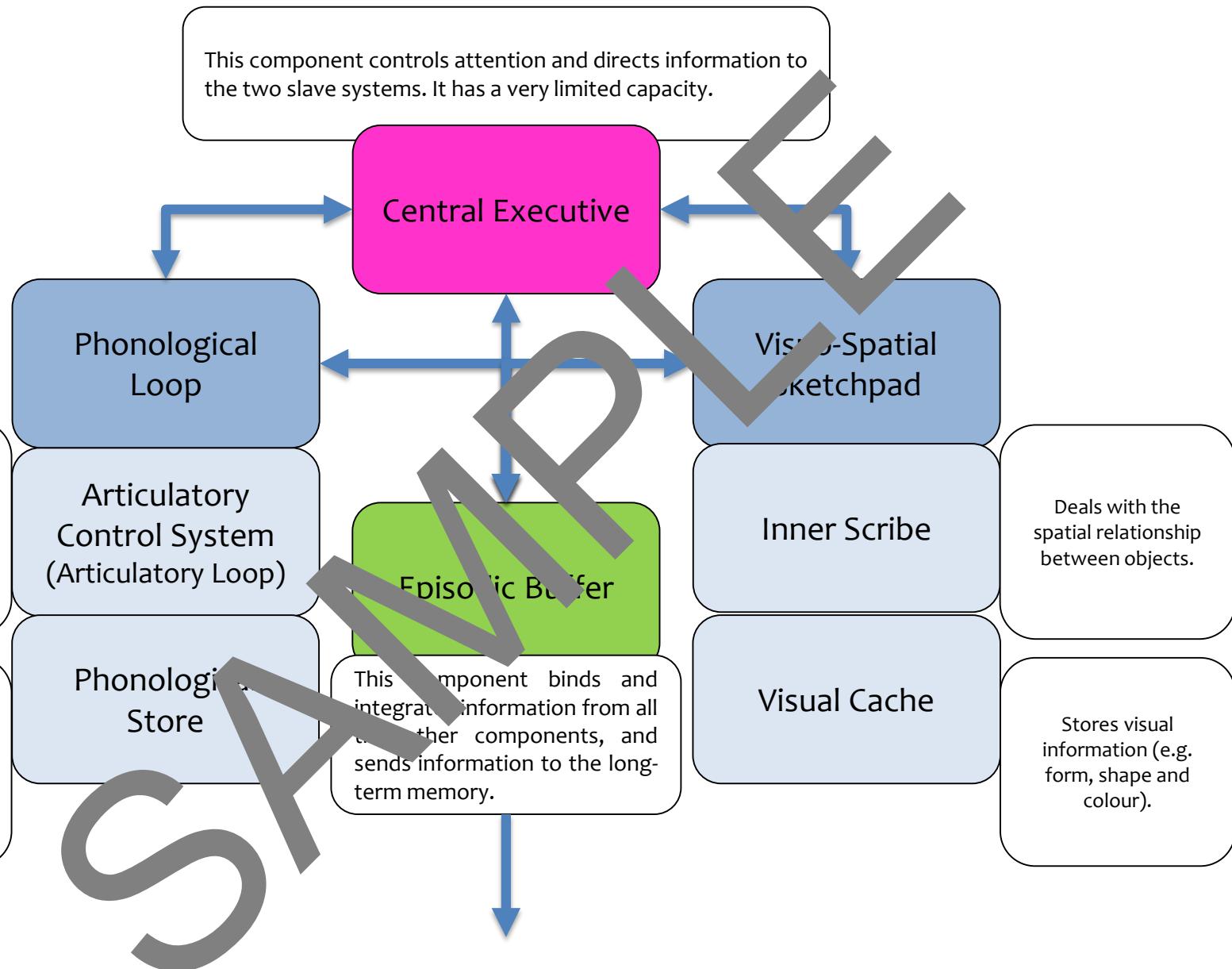
The episodic buffer binds and integrates information from all of the other components, and sends information to the long-term memory store.

Baddeley added this component later as he realised that the model had no general storage facility.

The Working Memory Model.

- Task: Cut out all of the Working Memory Model labels and arrange them to recreate the Working Memory Model. Once you have checked your answers, stick the information onto your handout.





The Working Memory Model

Task: Complete the fill-in-the-blanks exercise, using the key words below:

- 1) *Phonological loop*
- 2) *Acoustic*
- 3) *Articulatory Control System*
- 4) *Multi-Store Model*
- 5) *Working Memory Model*
- 6) *Baddeley & Hitch*
- 7) *Central Executive*
- 8) *Visuo-Spatial*
- 9) *Multi -Component*
- 10) *Manipulates*

The Working Memory Model

Task: Complete the fill-in-the-blanks exercise, using the keywords on the whiteboard.

The _____ was proposed by _____ as a way of explaining some of the research findings that could not be accounted for by the _____.

Working memory is essentially a _____ short-term memory system. It consists of a _____, which is a supervisory system in overall control, and two slave systems called the phonological loop and the _____ sketchpad.

The _____ is made up of two subcomponents; the phonological store, that stores _____ information and the _____, which allows for sub vocal repetition.

The _____ visuo-spatial sketchpad stores visual information and mental images.

The Working Memory Model

Task: Complete the fill in the blanks exercise, using the keywords on the whiteboard.

The Working Memory Model was proposed by Baddeley & Hitch as a way of explaining some of the research findings that could not be accounted for by the Multi-Store Model.

Working memory is essentially a Multi-component short-term memory system. It consists of a Central Executive, which is a supervisory system in overall control, and two slave systems called the phonological loop and the Visuo-Spatial sketchpad.

The Phonological Loop is made up of two subcomponents; the phonological store, that stores Acoustic information and the Articulatory Control System, which allows for sub vocal repetition.

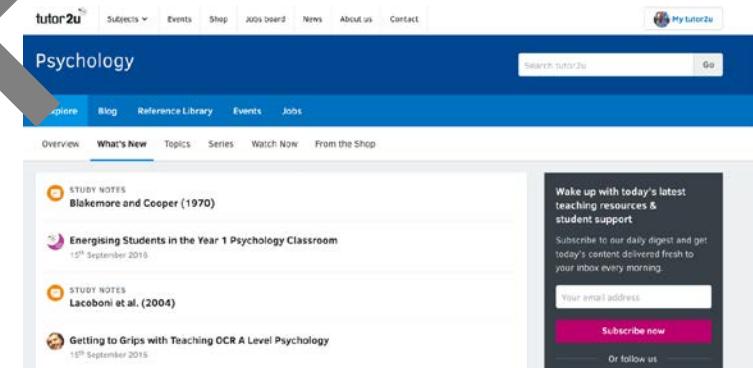
The Visuo-Spatial sketchpad stores visual information and Manipulates mental images.

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The Multi-Store Model

Task: Read the following essay and highlight the knowledge (A01) and evaluation (AO3) in different colours. Also, circle and correct any mistakes.

Outline and evaluate the multi-store model. (12 marks)

This model of memory states that our memory is made up of three separate stores; sensory memory, short-term memory (STM) and long-term memory (LTM). Each store has a different capacity and duration. Information from the environment first enters our STM. If we pay attention to this information, it will be passed onto the Sensory Memory. Information that is rehearsed in this store gets passed onto our LTM, and the flow of information through the three stores is sequential.

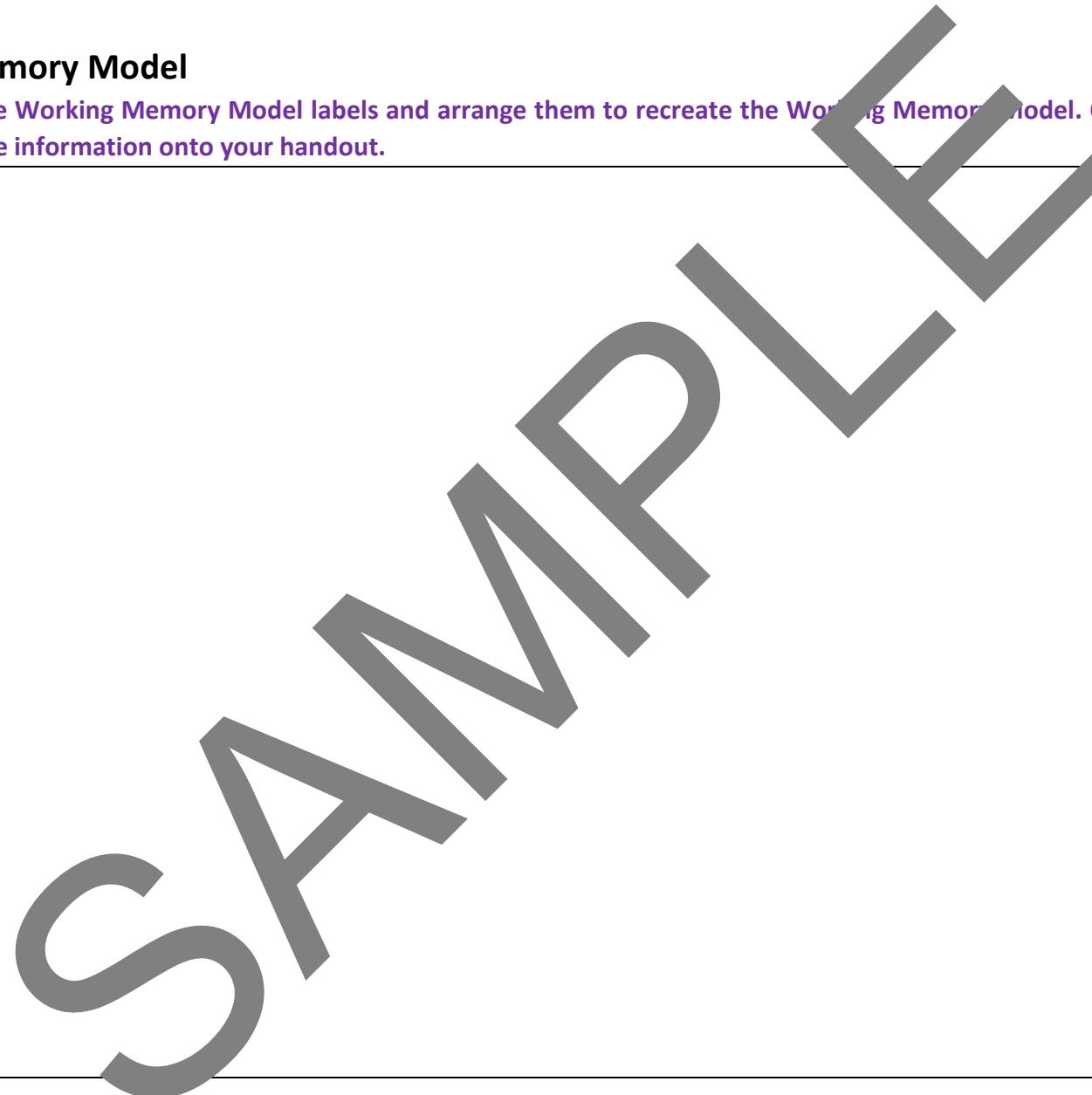
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Task: In pairs use the peer marking grid to assess this essay.

AQA A-LEVEL PSYCHOLOGY PEER MARKING GRID			tutor2u				
Name on essay:			Names of peer-markers:				
Essay title:							
Score	AS Level	A Level	Knowledge	Accuracy	Evaluation	Focus	Specialist terminology
4	10-12	13-16	Very detailed	Accurate	Thorough and effective	Clear, coherent and focussed	Used effectively
3	9-12	-	Reasonably detailed (reasonably detailed)	Occasional inaccuracies	Mostly effective	Mostly clear and organised	Mostly used effectively
2	4-6	5-8	Present (lacks detail)	Numerous inaccuracies	Partly effective	Lacks clarity, accuracy and organisation	Used inappropriately on occasions
1	2	0	Limited (limited/absent knowledge)	Highly inaccurate	Limited, not effective or absent	Lacks clarity, many inaccuracies and poorly organised	Either absent or inappropriately used
0	0	0	None	None	None	None	None
Overall Mark Band:			Mark Awarded: /12 or 16		EBI (Even better if):		
WWW (What went well):							

The Working Memory Model

Task: Cut out all of the Working Memory Model labels and arrange them to recreate the Working Memory Model. Once you have checked your answers, stick the information onto your handout.



The Working Memory Model

Task: Complete the fill-in-the-blanks exercise, using the keywords on the whiteboard.

The _____ was proposed by _____ as a way of explaining some of the research findings that could not be accounted for by the _____.

Working memory is essentially a _____ short-term memory system. It consists of a _____ which is a supervisory system in overall control, and two slave systems called the phonological loop and the sketchpad.

The _____ is made up of two sub components: the phonological store, that stores _____ information and the _____ which allows for sub vocal repetition.

The visuo-spatial sketchpad stores visual information and mental images.

Notes

