

**Unit 7A Vocab**  
**Cognition: Memory**

**Using your textbook, define these words on your flashcards. (39 words)**

1. memory
2. encoding
3. storage
4. retrieval
5. sensory memory
6. short-term memory
7. long-term memory
8. working memory
9. parallel processing
10. automatic processing
11. effortful processing
12. rehearsal
13. spacing effect
14. serial position effect
15. visual encoding
16. acoustic encoding
17. semantic encoding
18. imagery
19. mnemonics
20. chunking
21. iconic memory
22. echoic memory
23. long-term potentiation (LTP)
24. flashbulb memory
25. amnesia
26. implicit memory
27. explicit memory
28. hippocampus
29. recall
30. recognition
31. relearning
32. priming
33. déjà vu
34. mood-congruent memory
35. proactive interference
36. retroactive interference
37. repression
38. misinformation effect
39. source amnesia

## Study Guide Unit 7A Memory

Answer the following questions on your own paper. Use blue or black ink only.

1. Describe Atkinson-Shiffrin's classic three-stage processing model of memory.
2. Explain how the concept of working memory clarifies the processing that occurs in short-term memory.
3. Contrast effortful processing with automatic processing, **giving examples of each**.
4. Compare the benefits of visual, acoustic, and semantic encoding in remembering verbal information, and describe some memory-enhancing encoding strategies.
5. Contrast two types of sensory memory, and describe the duration and capacity of short-term memory.
6. Describe the capacity and duration of long-term memory.
7. Describe the biological changes that may underlie memory formation and storage.
8. Distinguish between implicit and explicit memory, and identify the main brain structure associated with each.
9. Contrast the recall, recognition, and relearning measures of memory, and explain how retrieval cues can help access stored memories.
10. Describe the impact of environmental contexts and internal emotional states on retrieval.
11. Discuss the roles of encoding failure and storage decay in the process of forgetting.
12. Explain what is meant by retrieval failure, and discuss the effects of interference and motivated forgetting on retrieval.
13. Explain how misinformation, imagination, and source amnesia can distort our memory in an event.
14. Discuss why it is difficult to distinguish between true and false memories.
15. Discuss the controversy over reports of repressed and recovered memories.

# MEMORY

Memory Encoding- ( ) getting info in.

Automatically: w/o conscious effort, hard to shut off. You \_\_\_\_\_

\_\_\_\_\_.

Effortful: w/ conscious effort, actually trying or \_\_\_\_\_.

Rehearsal -- \_\_\_\_\_

- 1.
- 2.
- 3.

(Herman Ebbinghouse)

Spacing Effect VS. Mass Learning

- 1.
- 2.

Serial Positioning Learning- Remembering the first ( ) & last ( ) items on a list better than \_\_\_\_\_.

Example: Grocery List OR List of U.S Presidents in chronological order

## TYPES OF ENCODING-

1. Semantic:

Semantic-Visually:

2. Acoustic:
3. Visual:

## RETAINING INFORMATION-

Sensory Memory (Lasts a few seconds) –

2 Types:

1. ICONIC Memory-(visual stimuli)-
2. ECHOIC Memory-(auditory stimuli)-

SHORT TERM or WORKING MEMORY-

1. w/o active processing, it has limited capacity (20-30 seconds)
2. holds about 7 items of info (like phone #s) Ex. Phone companies required callers to dial area code (3 more digits now, instead of 7) Trouble retaining the number??
3. CHUNKING-( ) Used for better recall. Ex. Chunking of SS#, Credit Card#, Phone #
4. Rehearsal helps extend it.

LONG TERM MEMORY-

1. Stores info indefinitely
2. Capacity is limitless
3. CONSOLIDATION- Brain converts short term memories into

2 TYPES OF LTM (2 Memory systems operating together)

1. Declarative (explicit) Memory – Facts & Personal info (conscious effort to bring to mind) “knowing that”
  - a. Semantic memory:
  - b. Episodic or Autobiographical memory:
  - c. Retrospective memory:
  - d. Prospective memory:

\_\_\_\_\_ helps process for storage.

2. Procedural (implicit) Memory – w/o conscious recall or effort “knowing how”
- a. Skills/how to do something (drive, swim, ride bike)
  - b. Engaged w/o any conscious effort
- Example:

Stored in the \_\_\_\_\_

## RETRIEVAL – GETTING INFO OUT

Recall-

Confabulation-

Misinformation Effect-

Recognition-

Relearning-

Priming- Associations made at the time of encoding. Helps retrieve a specific memory. “Wakening of Associations”. Ex. After seeing or hearing RABBIT, we are later more likely to spell the spoken word as H-A-R-E. **The spreading of associations unconsciously activates related associations.**

Retrieval Cues- Reminders of information: can be tags, hints, or identifying marks on target info. They are anchor points used to access target info when you want to retrieve it later. The more retrieval cues you have, the better your chances of finding a route to suspended memory.

Familiar context activates memories. MNEMONIC devices provide retrieval cues:

R.O.Y. G. B.I.V

H.O.M.E.S

9 planets

Cues can also be: tastes, smells, sights

Déjà vu- Eerie sense that “I’ve done this before.” Cues from a current situation may subconsciously trigger retrieval of an earlier experience.

## MOODS & MEMORIES

Cues available during recall are similar to those that were present when info was encoded.

Context-Dependent Memory- The tendency for info to be better recalled in same context in which it was originally learned.

State-Dependent Memory- Tendency for info to be better recalled when in the same emotional or physical state as when the info was 1<sup>st</sup> learned.

Rosy-Retrospection- Recalling the good points. “seeing the world through rose-colored glasses.”

## **Forgetting:**

Unable to retrieve info from LTM. (long term memory)

Decay-

Interference- Learning \_\_\_\_\_ leads to remembering \_\_\_\_\_.

Ex.- forgetting what you ate for dinner a week ago because...

This explains why some events are easily forgotten and others remain vivid for many years or even a lifetime.

**\*\* Greater the \_\_\_\_\_ between events, greater the risk of \_\_\_\_\_.\*\***

2 kinds of **INTERFERENCE:**

**Proactive-**

Ex.-

**Retroactive-**

Ex.-

Encoding failure-

Ex.-

**Lack of Retrieval cues:**

Tip of the Tongue Phenomenon-

Repression- Subconsciously blocking memory. Sometimes referred to as (\_\_\_\_\_)

Freud says this is a psychological \_\_\_\_\_ that protects self from awareness of threatening material. Such as:

Note: Repressed contents Do NOT disappear, but \_\_\_\_\_  
\_\_\_\_\_.

### **Amnesia- Lost Memories**

Causes can be from:

Types of Amnesia-

Retrograde-loss of memory of past events.

Anterograde- people can't form or store new memories or have difficulty doing so.

Childhood amnesia- perfectly normal process of development. Memory loss of very early childhood.

### **The Biology of Memory**

-**Memory** is processed and stored in different ways.

-**Memory** is stored in more than one area of the brain.

-**Long term potential** is neural basis for learning

-strengthening of neural connections through repeated stimulation

-the more you use your synapses for memory, the more efficient they become

-**Genetic basis of memory**- developing drugs to help preserve or restore memory