

Name: _____

Date: _____

Answer Key: Unraveling the Neural Circuit: High School Memory Explorers

Encoding, sensory registers, and procedural learning — 10 questions identifying how our brains transform fleeting sensations into permanent knowledge.

1. Which specific stage of memory acts as a high-capacity filter, holding visual data like an 'after-image' for less than a second?

Answer: B) Iconic memory

Iconic memory is the visual sensory register that holds a mental picture of a scene for a fraction of a second before it fades or moves to short-term memory.

2. True or False: Procedural memory, such as knowing how to ride a bicycle or tie your shoes, is considered a type of implicit memory.

Answer: A) True

Procedural memory is implicit because it involves skills and tasks we perform automatically without needing to consciously 'declare' the steps.

3. When you group a long string of numbers into smaller, manageable units (like a social security number), you are using a technique called _____.

Answer: C) Chunking

Chunking is the process of organizing information into familiar, manageable units, which increases the capacity of our short-term memory.

4. Which of the following is an example of 'Semantic Memory' rather than Episodic Memory?

Answer: C) Knowing that Paris is the capital of France

Semantic memory stores general knowledge and facts about the world, while episodic memory stores personal experiences and specific events.

5. True or False: Maintenance rehearsal is the most effective way to move information into long-term memory for deep understanding.

Answer: B) False

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Maintenance rehearsal (simple repetition) is good for short-term memory, but 'elaborative rehearsal' (making meaningful connections) is better for long-term storage.

6. The process of getting information OUT of memory storage so it can be used is known as _____.

Answer: A) Retrieval

Retrieval is the third stage of the memory process, following encoding and storage, where stored information is accessed.

7. In the 'Atkinson-Shiffrin' model, what is the approximate duration that information stays in short-term/working memory without rehearsal?

Answer: B) 15 to 30 seconds

Short-term memory has a very limited duration; if information is not rehearsed, it usually disappears within 30 seconds.

8. A student who studies in the same room where they will take the exam is hoping to benefit from _____-dependent memory.

Answer: C) Context

Context-dependent memory refers to the phenomenon where it is easier to retrieve information if the physical environment at retrieval matches the environment during encoding.

9. Which cognitive hurdle involves only looking for information that supports our existing beliefs while ignoring contradictory evidence?

Answer: B) Confirmation bias

Confirmation bias is a cognitive error where we favor information that validates what we already think and disregard facts that challenge us.

10. True or False: According to the serial position effect, you are most likely to forget the items in the middle of a long list.

Answer: A) True

The serial position effect shows we remember the first and last items best (primacy and recency), while the middle items are often lost.