Course: *Psychology* **Unit #3: Cognition**	**Year of Implementation:** 2022-2023
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Stage One - Desired Results	
Link(s) to New Jersey Student Learning Standards for this course: **New Jersey Core Curriculum Content Standards** **https://www.state.nj.us/education/cccs/2020/** **New Jersey Core Curriculum Content Standards 21st Century Life and Careers** **http://www.state.nj.us/education/cccs/2014/career/9.pdf** **APA National Standards for High School Psychology Curriculum** **https://www.apa.org/education/k12/national-standards**	

- **Unit Standards:** *(keep each of the following headings in place)*
  - ***Content Standards***
    - ***APA National Standards for Psychology:***
      - **Standard Area: Learning**
        - 1.2 Describe principles and clinical and experimental examples of classical conditioning.
        - 2.3 Describe principles and clinical and experimental examples of operant conditioning.
        - 3.1 Describe the principles of observational and cognitive learning.
      - **Standard Area: Language Development**
        - 1.1 Describe the structure and function of language.
        - 1.2 Discuss the relationship between language and thought.
      - **Standard Area: Memory**
        - 1.1 Identify factors that influence encoding.
        - 1.3 Discuss strategies for improving memory.
        - 2.1 Describe the differences between working memory and long-term memory.
        - 3.3 Discuss the factors influencing how memories are retrieved.
      - **Standard Area: Thinking & Intelligence**

- 1.1 Define cognitive processes involved in understanding information.
- 1.2 Define processes involved in problem solving and decision making.
- 2.1 Discuss the history of intelligence testing, including historical use and misuse in the context of fairness.
- 2.3 Identify measures of and data on reliability and validity for intelligence test scores.
- 3.2 Discuss the influences of biological, cultural, and environmental factors on intelligence.

- ***21st Century Life & Career Standards***
  - 9.2.12.C.5 Research career opportunities in the United States and abroad that require knowledge of world languages and diverse cultures
  - 9.3.12.ED-TT.2 Employ knowledge of learning and developmental theory to describe individual learners.
  - 9.3.HL.5 Analyze the legal and ethical responsibilities, limitations and implications of actions within the healthcare workplace.
  - 9.3.12.ED.2 Demonstrate effective oral, written and multimedia communication in multiple formats and contexts
    https://www.state.nj.us/education/cccs/2020/2020%20NJSLS-CLKS.pdf
- ***English Companion Standards***
  - NJSLSA.R1. Read closely to determine what the text says explicitly and to make logical inferences and relevant connections from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text
  - NJSLSA.R6. Assess how point of view or purpose shapes the content and style of a text.
  - NJSLSA.R7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words..
    https://www.state.nj.us/education/cccs/2016/ela/CompanionG1112.pdf
- ***Interdisciplinary Content Standards***
  - 2.1.12.PGD.2: Predict how healthy and unhealthy behaviors can affect brain development and impact physical, social and emotional stages of early adulthood.
- ***NJ Statutes:***

  Amistad Law: N.J.S.A. 18A 52:16A-88 Every board of education shall incorporate the information regarding the contributions of African-Americans to our country in an appropriate place in the curriculum of elementary and secondary school students.

  Holocaust Law: N.J.S.A. 18A:35-28 Every board of education shall include instruction on the Holocaust and genocides in an appropriate place in the curriculum of all elementary and secondary school pupils. The instruction

shall further emphasize the personal responsibility that each citizen bears to fight racism and hatred whenever and wherever it happens.

LGBT and Disabilities Law: N.J.S.A. 18A:35-4.35 A board of education shall include instruction on the political, economic, and social contributions of persons with disabilities and lesbian, gay, bisexual, and transgender people, in an appropriate place in the curriculum of middle school and high school students as part of the district's implementation of the New Jersey Student Learning Standards (N.J.S.A.18A:35-4.36) A board of education shall have policies and procedures in place pertaining to the selection of instructional materials to implement the requirements of N.J.S.A. 18A:35-4.35.

For additional information, see
NJ Amistad Curriculum: http://www.njamistadcurriculum.net/

Transfer Goal: Students will be able to independently use their learning to formulate realistic expectations of people's behavior by analyzing language development, and cognition (thinking, learning, and memory).

As aligned with LRHSD Long Term Learning Goal(s):

- choose and analyze appropriate sources to gain content knowledge
- apply acquired content to connect past and present day events
- collaborate and interact with others in a diverse and ever-changing world

Enduring Understandings	*Essential Questions*
Students will understand that. . . *EU 1* short, long and working memory are influenced by encoding, storage, and retrieval.	*EU 1* ● How can memory be improved in the short-term and in the long-term? ● How can memories become "lost"? ● What influences can the senses have on memory?
EU 2 different units of thought (images, concepts, symbols) influence problem-solving abilities and creativity.	*EU 2* ● How can problem-solving be influenced by one's creativity? ● How can obstacles to problem-solving be overcome?

EU 3 intelligence test construction, fair use, and culture are important complex elements in the assessment of individual differences and intelligence. *EU 4* humans integrate various informational cues in order to communicate effectively. *EU 5* both biological and environmental factors influence learning.	*EU 3* ● Can intelligence be defined and measured? ● How can one construct a culture-fair test of intelligence? ● What kinds of intelligence should be considered the most important? ● What roles do nature and nurture play in intelligence? ● How can the results of various measures of intelligence be applied in the real world? *EU 4* ● How do humans learn and use language? ● Why does miscommunication happen? *EU 5* ● How can one attempt to modify an organism's behavior? ● What behaviors in one's life may have been shaped by classical and/or operant conditioning? ● Does observational learning occur vicariously?
<u>Knowledge</u> *Students will know . . .* *EU 1* ● the three processes of memory. (2.1) ● the three systems of memory and their limits.(2.1) ● methods of improving memory. (2.4) ● different types of long-term memory.(2.3) ● the difference between recognition and recall. (3.1) ● factors that influence and shape memory. (3.3,3.4,3.5) ● factors that contribute to memory loss. (3.2) *EU 2* ● the five major units of thought.(1.1) ● components of convergent and divergent thinking and metacognition.(2.1)	*<u>Skills</u>* Students will be able to. . . *EU 1* ● analyze the importance of retrieval cues in memory.(2.1) ● compare and contrast the operation of sensory, short-term, and long-term memory.(2.3) ● analyze the role of interference and other obstacles to memory retrieval.(3.2) ● develop strategies to improve memory.(3.5) ● describe the processes that could lead to inaccuracies in memory.(3.4) *EU 2* ● use convergent and divergent thinking to solve problems.(2.1)

• problem-solving and decision-making strategies.(2.1) • obstacles to problem-solving and decision-making.(2.1) • components of creativity.(2.2) *EU 3* • components of reliable, valid, and standardized tests.(2.3) • how testing norms are established.(2.3) • theories of multiple intelligences from Spearman, Sternberg, and Gardner. (1.1, 1.2, 1.3) • the importance of emotional intelligence.(1.3) • how the calculation of IQ scores have changed over time (2.3) • the links between nature and nurture and intelligence.(3.2) • how cultural bias could impact intelligence test results.(3.2) *EU 4* • the units of language and speech.(1.1,1.2) • the steps of language acquisition.(1.1,1.2) • differing theories on language development.(1.1,1.2) • nonverbal components of communication.(1.1,1.2) *EU 5* • the components of classical conditioning. (1.1) • Pavlov's dogs experiment and Watson's Little Albert experiment. (1.1) • the components of operant conditioning.(2.3) • the experiments of B.F. Skinner.(2.3) • the schedules of reinforcement. (2.3) • how learned helplessness develops according to Martin Seligman. (3.1) • the components of social learning.(3.1) • bandura's Bobo doll experiment.(3.1) • the differences between the types of learning processes.(1.1,2.3,3.1)	• analyze the obstacles that inhibit problem-solving and effective decision-making.(2.1) • use creative thinking skills.(2.2) *EU 3* • evaluate what makes a test reliable, valid, and standardized. (2.3) • compare and contrast the theories of multiple intelligences.(1.1,1.2,1.3) • debate the definition of intelligence.(1.1) • recognize cultural bias in testing.(3.2) • debate the roles of nature and nurture in intelligence.(3.2) • explain the difference between Fluid and Crystallized intelligence(1.3) *EU 4* • analyze how humans learn and use language (1.1,1.2) • describe the causes for miscommunication(1.1,1.2) *EU 5* • explain how to modify an organism's behavior (1.1, 2.3, 3.2) • identify which behaviors in one's life have been shaped by classical/operant conditioning.(1.2,2.3,3.1) • describe how observational learning occurs (3.1)

• latent Learning and Cognitive Maps and Tolman's experiment. (3.1)	
Stage Two - Assessment	
Stage Three - Instruction	

Learning Plan: **Suggested Learning Activities to Include Differentiated Instruction and Interdisciplinary Connections: Each learning activity listed must be accompanied by a learning goal of A= Acquiring basic knowledge and skills, M= Making meaning and/or a T= Transfer.** *The following color codes are used to notate activities that correspond with interdisciplinary connections and 21st Century Life & Career Connections (which involves Technology Literacy): Red = Interdisciplinary Connection; Purple = 21st Century Life & Career Connection*

- Three Systems of Memory graphic organizer (available on google drive). (A, EU1)
- View "Brain Games" episodes to do interactive activities on memory, thinking, intelligence, etc. DVD or Disney Plus (M, EU1)
- Activity to test sensory memory, short term memory, and long term memory after brief exposure to a slide of numbers and letters. (M, EU1)
- Test the limits of students' short-term memories by reading lists of numbers. (M, EU1)
- Have students utilize chunking techniques in memorizing visual and auditory information. (T, EU1)
- View "Tell Me Who I Am" documentary Netflix (M, EU1)
- Test students' long-term memory with the "Spot the Real Penny" test. (M, EU1)
- Demonstrate the primacy-recency effect on students with a grocery list. (A,M, EU1)
- Create a story from your life and label each sentence with the correct memory lane from your long term memory. (M, EU1)
- Have students write down the 50 states from memory with various retrieval cues (none, first letter, blank map) to demonstrate various concepts of memory. (M, EU1)
- View "Memento" to see the effects of Anterograde amnesia. (M, EU1)
- View 50 First Dates to see the impact of Anterograde amnesia (M, EU1)
- View "Eternal Sunshine of the Spotless Mind" and write an essay evaluating the value of bad memories and debating the merits of a memory-erasing procedure. DVD (M, EU1)

- Demonstrate reconstructive processes on students with a list of sleep-related words. (M, EU1)
- Demonstrate the importance of context in memory by having students memorize sentences on kite-flying (half the class is given that cue and the other half is not). (M, EU1)
- Demonstrate the connection between encoding, storage, and retrieval by challenging students to recite the months in alphabetical order in 30 seconds. (M, EU1)
- Memory Web Quest (available on google drive) (M, EU1)
- "How to Maximize Memory" Study Guide project (template on google drive). (T, EU1)
- Complete problem-solving test of mental flexibility. (M, EU2)
- Ask students "Mind Trap" questions to force them to think outside the box. (M, EU2)
- Have students complete tests of mental imagery that involve mentally rotating objects in their head. (M, EU2)
- Have students answer riddles by using divergent thinking. (M, EU2)
- Have students overcome mental sets by trying to connect 9 dots in a square formation by drawing four straight lines without lifting their pencil or retracing any lines (M, EU2)
- Students solve lateral thinking puzzles as a class. (M, EU2)
- View RSA animation video "Changing the Education Paradigm." (A, EU2)
- "Creation Station" Lesson Plan; students rotate around the classroom in groups and attempt to solve various problems noting the problem-solving strategies used at each station and the specific obstacles to problem-solving encountered (worksheet on google drive). (T, EU2)
- Class debate on the meaning of intelligence. (M, EU3)
- Have students complete sample intelligence tests and determine the flaws and limits of them. (T, EU3)
- Have students complete early 20th century IQ tests and evaluate their validity, as well as the Dove Counterbalance Intelligence Test. (T, EU3)
- Complete a survey on Gardner's theory of multiple intelligences to determine individual strengths and weaknesses. (M, EU3)
- View "Project Nim" and answer corresponding questions on animal language development DVD (A, EU4)
- Play "Mad Gab" online or as a board game either as a class or in partners or small groups to demonstrate the difference between morphemes and phonemes and the role they both play in effective verbal communication. http://www.freemadgabonline.com/madgabs/ (M, EU4)
- Shaping experiment in class to have a student volunteer carry out an unexpected behavior (clap for reinforcement for each gradual step of reinforcement) (T, EU5)
- Complete a survey to determine their ideal learning style (M, T, EU5)
- Water Bottle experiment to demonstrate classical conditioning components. One student volunteer will sit facing the class with eyes closed and listen to a series of words the teacher reads. The teacher will spray the student in the face with a water bottle when one particular word is said, eliciting a flinching reaction that will be acquired (and later will become extinct) to that word, and students will identify the UCS, UCR, CS, CR, etc. (M, EU5)

- Create a storyboard of an original example of classical conditioning showing the three stages of learning (before, during, and after conditioning). (M, EU5)
- Classical conditioning in 3 commercials from television identifying the UCS, UCR, CS, CR, and NS. (M, EU5)
- Reinforcement schedules using hard candy using Continuous and Partial reinforcement schedules (M, EU5)
- The Office clip "Classical Conditioning" http://www.maniacworld.com/Pavlov-Altoid-Theory.html (A, EU5)
- View "The Big Bang Theory" clip with Sheldon using operant conditioning techniques on Penny https://youtu.be/5XUvm_smWHY (A, EU5)
- View and discuss various Dove Films such as "Evolution," "Onslaught," "Sketch Artist," "Average or Beautiful" with regard to the impact of socialization on body image and self-esteem https://youtu.be/iYhCn0jf46U (M, EU5)
- Observational learning demonstration; Napkin Chicken (google drive). This is a demonstration of the relative difficulty of following written instructions vs. observational learning. Students first attempt to fold a cloth napkin into a chicken following written instructions, with no external guidance. Teacher then demonstrates each step. Most students are only successful after the behavior has been modeled. (T, EU5)

Pacing Guide

Unit #	***Title of Unit***	***Approximate # of teaching days***
1	Introduction to Psychology and Research	30
2	Biological Bases of Behavior, Sensation, Perception and Altered States of Consciousness	30
3	Cognition - Memory, Thinking and Intelligence, Language and Learning	30
4	Motivation, Emotion, and Personality, Human Development	30
5	Stress, Psychological Disorders and Therapy	30
6	Social Psychology	30

Instructional Materials

- Scholastic Choices
- Meyer's Psychology AP Textbook
- ACC/CP- Hockenberry Psychology Textbook
- Lumen Learning
- Sprout videos
- Practical Psychology videos
- Mind field episodes

Accommodations

Special Education: The curriculum will be modified as per the Individualized Education Plan (IEP). Students will be accommodated based on specific accommodations listed in the IEP.
Students with 504 Plans: Students will be accommodated based on specific accommodations listed in the 504 Plan.
English Language Learners: Students will be accommodated based on individual need and in consultation with the ELL teacher.
Students at Risk of School Failure: Students will be accommodated based on individual need and provided various structural supports through their school.
Gifted and Talented Students: Students will be challenged to enhance their knowledge and skills through acceleration and additional independent research on the subject matter.