AP Psychology

UNIT 1: Biological Bases of Behavior

ESSENTIAL QUESTION	BIG IDEAS
How do the functions of our biological systems influence our physical and mental actions and responses?	Students will... • apply psychological perspectives, theories, concepts, and research findings. (Scientific Practice 1: Application) • evaluate qualitative and quantitative research methods and study designs (Scientific Practice 2: Research) • evaluate representations of psychological concepts in quantitative and qualitative research, including tables, graphs, charts, figures, and diagrams. (Scientific Practice 3: Data Interpretation) • develop and justify psychological arguments using evidence. (Scientific Practice 4: Argumentation)

GUIDING QUESTIONS

Content (College Board Learning Objective and Essential Knowledge)

- **1.1.A** Explain the relationship between heredity and environment in shaping behavior and mental processes. **1.1.A.1** Heredity and environmental factors interact to shape behavior and mental processes. **1.1.A.1.i** Heredity, or "nature," refers to genetic or predisposed characteristics that influence physical, behavioral, and mental traits and processes. **1.1.A.1.ii** Environmental factors, or "nurture," refers to the external factors that one experiences, such as family interactions or education. Exclusion Statement: Specific information about genetics (genotype, phenotype, DNA, chromosomes, and recessive and dominant gene expression) is beyond the scope of the AP Psychology Exam. **1.1.A.2** The evolutionary perspective explores how natural selection affects the expression of behavior and mental processes to increase survival and reproductive success. Some theorists have sought to apply principles of the evolutionary perspective in ways that discriminate against others (eugenics). **1.1.A.3** Researchontheeffectsofgenesonindividual behavior and mental processes is often conducted using twin studies, family studies, and adoption studies.
- **1.2.A** Differentiate among the subsystems of the human nervous system and their functions. **1.2.A.1** The central nervous system includes the brain and the spinal cord and interacts with all processes in the body. **1.2.A.2** The peripheral nervous system relays messages from the central nervous system to the rest of the body and includes the autonomic and somatic nervous systems. **1.2.A.2.i** The autonomic nervous system governs processes that are involuntary and includes the parasympathetic and sympathetic nervous systems. **1.2.A.2.ii** The somatic nervous system governs processes that are voluntary.
- **1.3.A** Explain how the structures and functions of typical neurons in the central nervous system affect behavior and mental processes. **1.3.A.1** Two common types of neural cells in the brain are neurons (neural cells that transmit information) and glial cells (cells that provide structure, insulation, communication, and waste transport). These types of cells form the basis of the nervous system and

are the building blocks of all behavior and mental processes. **1.3.A.2** In the spinal cord, the reflex arc demonstrates how neurons within the central and peripheral nervous systems work together to respond to stimuli. Three types of neurons work together in the spinal cord to create a reflex arc: sensory neurons, motor neurons, and interneurons.

- **1.3.B** Explain how the basic process of neural transmission is related to behavior and mental processes. **1.3.B.1** The process of neural transmission most commonly occurs in an orderly, systematic way and involves the all-or-nothing principle, depolarization, refractory period, resting potential, reuptake, and threshold. Disruptions to this process could lead to disorders such as multiple sclerosis or myasthenia gravis. *Exclusion Statement: The sodium potassium pump is outside the scope of the AP Psychology Exam.* **1.3.B.2** Each neurotransmitter has specific function(s) related to behavior and mental processes, which may depend on the neurotransmitter's location in the nervous system. Neurotransmitters generally communicate either excitatory (making an action potential more likely) or inhibitory (making an action potential less likely) messages. Neurotransmitters related to behavior and mental processes for study in AP Psychology are limited to dopamine, serotonin, norepinephrine, glutamate, GABA, endorphins, substance p, and acetylcholine. *Exclusion Statement: The AP Psychology Exam will only address the listed neurotransmitters in EK 1.3.B.2.* **1.3.B.3** Outside of the nervous system, hormones perform actions similar to neurotransmitters. Hormones related to behavior and mental processes for study in AP Psychology are limited to adrenaline, leptin, ghrelin, melatonin, and oxytocin. *Exclusion Statement: The AP Psychology Exam will only address the listed hormones in EK 1.3.B.3. Exclusion Statement: Specific information about the glands of the endocrine system (with the exception of the pituitary gland as referenced in EK 1.4.A.4) is outside the scope of the AP Psychology Exam.*
- **1.3.C** Explain how psychoactive drugs affect behavior and mental processes. **1.3.C.1** Psychoactive drugs can influence neurotransmitter function in various ways throughout the neural communication process. Some act as agonists which encourage neural firing. Some act as antagonists which discourage neural firing. Some act as reuptake inhibitors which block the reabsorption of neurotransmitters back into the cell. **1.3.C.2** Psychoactive drugs have psychological and physiological effects. **1.3.C.2.i** Stimulants,such as caffeine and cocaine, typically cause increased neural activity. **1.3.C.2.ii** Depressants, such as alcohol, typically cause decreased neural activity. **1.3.C.2.iii** Hallucinogens, such as marijuana, typically cause distortions in perception and/or cognition. **1.3.C.2.iv** Opioids, such as heroin, typically act as pain relievers. **1.3.C.3** Psychoactive drug use can lead to tolerance and/or addiction. Addiction can create significant withdrawal symptoms if the psychoactive drugs are no longer consumed.
- **1.4.A** Explain how the structures and functions of the brain apply to behavior and mental processes. **1.4.A.1** The brain stem (including the medulla) generally controls basic functioning such as breathing and heart rate. **1.4.A.2** The reticular activating system and the brain's reward center generally control some voluntary movement, eye movement, and some types of learning, cognition, and emotion. **1.4.A.3** The cerebellum generally controls coordination of muscle movement, balance, and some forms of procedural learning. **1.4.A.4** The cerebral cortex is divided into two hemispheres and includes the limbic system (thalamus, hypothalamus, pituitary gland, hippocampus, amygdala), corpus callosum, and the lobes of the cortex. **1.4.A.4.i** The occipital lobes generally control visual information processing and are located in the rear of the brain. **1.4.A.4.ii** The temporal lobes generally control auditory and linguistic processing and are located on the sides of the brain. **1.4.A.4.iii** The parietal lobes generally control association areas, which process and organize information, and the somatosensory cortex, which processes touch sensitivity. These lobes are located near the back crown of the brain. **1.4.A.4.iv**

The frontal lobes, located just behind the forehead, generally control linguistic processing, higher-order thinking, and executive functioning, especially in the prefrontal cortex. The motor cortex is located at the rear of the frontal lobes and controls most types of skeletal movement. **1.4.A.5** Split brain research, achieved by severing the corpus callosum (often a treatment for severe epilepsy), reveals that the right and left hemispheres of the brain may specialize in different activities and functions. **1.4.A.5.i** Areas of the brain that affect language are typically located in the left hemisphere and include Broca's area (responsible for speech production) and Wernicke's area (responsible for speech comprehension). Damage to these parts of the brain can lead to aphasia. **1.4.A.5.ii** Researchers test for cortex specialization with split-brain patients by showing information in each visual field, taking advantage of the brain's contralateral hemispheric organization. **1.4.A.6** Brain plasticity is the ability of the brain to rewire itself or modify or create new connections throughout development and generally allows for the function of a damaged part of the brain to be assumed by a different part of the brain. **1.4.A.7** Research on the brain is done using scans (including EEG and fMRI), case studies, and surgical procedures (such as lesioning) to promote understanding how the different structures of the brain work and how the brain functions together as a whole.

- **1.5.A** Explain how the sleep/wake cycle affects behavior and mental processes throughout the day and night. **1.5.A.1** Consciousness has varying levels of awareness of thoughts, feelings, behavior, and events in individuals' internal and external worlds. Sleep and wakefulness are two types of consciousness. 1.5.A.2 The sleep/wake cycle is a circadian rhythm, whichinhumansisabouta24-hourcycle. Jet lag and shift work are disruptions of the circadian rhythm. **1.5.A.3** The stages of sleep are identified by their specific EEG patterns. **1.5.A.3.i** NREM sleep occurs in Stages 1 through 3 and decreases in duration throughout the cycle. Hypnogogic sensations occur as one enters Initial Stage 1 sleep. **1.5.A.3.ii** REM sleep is considered paradoxical because it produces waves similar to wakefulness, but the body is at its most relaxed. Dreaming typically occurs in REM sleep. The frequency of REM sleep typically increases as the cycle progresses. When deprived of REM sleep, REM rebound can occur. **1.5.A.4** Theories regarding the structure and function of dreams include activation-synthesis and consolidation theory. Exclusion Statement: The psychoanalytic theory of dreams is outside of the scope of the AP Psychology Exam. **1.5.A.5** Memory consolidation and restoration are current theories about why sleep occurs. These theories suggest that sleep is useful for organizing and consolidating memories of restoring depleted resources used throughout a given day. **1.5.A.6** Many disorders interrupt healthy sleep, and their effects on waking behavior and health vary. Sleep disruptions can affect physical and cognitive performance during wakefulness. Treating sleep disorders and following regular schedules for sleeping can improve waking performance and overall well-being. Disorders commonly studied in introductory psychology include insomnia, narcolepsy, REM sleep behavior disorder, sleep apnea, and somnambulism. *Exclusion Statement: The AP Psychology Exam will only address the listed disorders in EK 1.5.A.6.*
- **1.6.A** Explain how the process of sensation is related to behavior and mental processes. **1.6.A.1** Sensation is the process of detecting information from the environment that meets a certain threshold and transducing stimuli into neurochemical messages for processing (perception) in the brain. The absolute threshold occurs when a stimulus can be detected at least 50% of the time. **1.6.A.2** Detection of change in stimuli or diminished sensitivity to stimuli can be explained by the just-noticeable difference sensory adaptation. Weber's law describes the degree to which stimuli need to be different for the difference to be detected. **1.6.A.3** The sensory systems constantly work together in a process called sensory interaction. Synesthesia is an experience of sensation in which one system of sensation is experienced through another.

- **1.6.B** Explain how the structures and functions of the visual sensory system relate to behavior and mental processes. **1.6.B.1** The retina is the photosensitive surface at the back of the eye. Cells in the retina capture visual information that is transduced to the brain for processing. Evidence of incomplete images captured by the retina is demonstrated by the presence of the blind spot, where the visual nerve exits the eye. The brain fills In the gaps in the incomplete retinal images to perceive a relatively complete picture of the world. **1.6.B.2** Visual stimuli are focused onto the retina by the lens via a process called accommodation. When this process is altered, nearsightedness or farsightedness can result. **1.6.B.3** Cells that lie in the periphery of the eye and detect shapes and movement, but not color, are called rods. These cells are mainly activated in low-light environments. These cells play a role in light and dark adaptation. **1.6.B.4** Color vision is explained by both the trichromatic theory and opponent-process theory. **1.6.B.4.i** Photoreceptor cells located in the fovea of the eye that process color and detail are called cones. Researchers have Identified blue (detecting short wavelengths), green (detecting medium wavelengths) and red (detecting long wavelengths) cones in the retina. **1.6.B.4.ii** Afterimages result when certain ganglion cells in the retina are activated while others are not. The ganglion cells involved in this opponent process are red/green, blue/ yellow/ and black/white. **1.6.B.4.iii** Color vision deficiency involves damage or irregularities to one or more cones or ganglion cells (red/green, blue/ yellow). Color vision deficiency includes dichromatism or monochromatism. **1.6.B.5** Damage to parts of the brain responsible for vision (mainly the occipital lobes) can result in disorders such as prosopagnosia (face blindness) and blindsight.
- **1.6.C** Explain how the structures and functions of the auditory sensory system relate to behavior and mental processes. **1.6.C.1** Sound occurs through the movement of air molecules at different wavelengths (called pitch) and amplitudes (called loudness). **1.6.C.2** Theories that help explain pitch perception include place theory, volley theory, and frequency theory. **1.6.C.3** Sound localization describes how we identify where sounds in our environment are coming from. **1.6.C.4** Hearing difficulties can result from aging and various kinds of damage to auditory structures. Types of hearing loss include conduction deafness and sensorineural deafness.
- **1.6.D** Explain how the structures and functions of the chemical sensory systems relate to behavior and mental processes. **1.6.D.1** Structures in the nose and brain process and/ or transduce olfactory stimuli. Smell is the only sense not processed first in the thalamus of the brain. Pheromones produce chemical messages for the olfactory system. **1.6.D.2** Gustation is the sense of taste, and types of tastes include sweet, sour, salty, bitter, umami, and oleogustus. **1.6.D.3** Structures in the tongue, mouth, and brain process and/or transduce basic tastes. The number of taste receptors on the tongue is related to how sensitive people are to tastes, classifying them as supertasters, medium tasters, or nontasters. **1.6.D.4** The chemical senses interact to create the sensation of taste. Without the sense of smell, taste sensations are either muted or not experienced.
- **1.6.E** Explain how the structures and functions of the touch sensory system relate to behavior and mental processes. **1.6.E.1** Structures within the skin and brain process and/or transduce touch stimuli. The sensation of “hot” is produced by the activation of warm and cold receptors in the skin.
- **1.6.F** Explain how the structures and functions of the pain sensory system relate to behavior and mental processes. **1.6.F.1** Pain is processed both in the body and in the brain. Gate control theory is one attempt to describe the complexities of pain. Phantom limb sensation occurs when people who have lost limbs report sensation or pain where the limb used to be.
- **1.6.G** Explain how the structures and functions that maintain balance (vestibular) and body movement (kinesthetic) relate to behavior and mental processes. **1.6.G.1** The vestibular sense controls balance and is primarily detected by the semicircular canals and structures in the brain. **1.6.G.2** Kinesthesis the

sense of one's body movement. Kinesthesis allows the body to move in coordinated ways without having to look at the various parts of the body as it moves.

Process (College Board Scientific Practice Suggested Skills):

- **1.A** Apply psychological perspectives, theories, concepts, and research findings to a scenario.
- **1.B** Explain how cultural norms, expectations, and circumstances, as well as cognitive biases apply to behavior and mental processes.
- **2.A** Determine the type of research design(s) used in a given study.
- **2.C** Evaluate the appropriate use of research design elements in non-experimental methodologies.
- **2.D** Evaluate whether a psychological research scenario followed appropriate ethical procedures.
- **3.A** Identify Psychology-related concepts in descriptions or representations of data.
- **3.B** Calculate and interpret measures of central tendency, variation, and percentile rank in a given data set.
- **3.C** Interpret quantitative or qualitative inferential data from a given table, graph, chart, figure, or diagram.
- **4.A** Propose a defensible claim.

Reflective (Essential Questions):

- Why do we learn biology in a psychology course?
- How does knowledge of the connection between biological systems and mental processes help us live healthier lives?
- How much of who you are is determined by what's in your brain?

FOCUS STANDARDS

Kansas History, Government, and Social Studies Standards

- Standard 1: Choices have consequences.
- Standard 2: Individuals have rights and responsibilities.
- Standard 3: Societies are shaped by the identities, beliefs, and practices of individuals and groups.
- Standard 4: Societies experience continuity and change over time.
- Standard 5: Relationships among people, places, ideas, and environments are dynamic.

AP Psychology

UNIT 2: Cognition

ESSENTIAL QUESTION	BIG IDEAS
How do people remember and perceive the world around them?	Students will... • apply psychological perspectives, theories, concepts, and research findings. (Scientific Practice 1: Application) • evaluate qualitative and quantitative research methods and study designs (Scientific Practice 2: Research) • evaluate representations of psychological concepts in quantitative and qualitative research, including tables, graphs, charts, figures, and diagrams. (Scientific Practice 3: Data Interpretation) • develop and justify psychological arguments using evidence. (Scientific Practice 4: Argumentation)

GUIDING QUESTIONS

Content (College Board Learning Objective and Essential Knowledge)

- **2.1.A** Explain how internal and external factors influence perception. **2.1.A.1** Perceptionisinfluencedbywhetherone primarily relies on external sensory information (bottom-up processing) or internal prior expectations (top-down processing). **2.1.A.2** Schemas and perceptual sets are internal factors that filter perceptions of the world. **2.1.A.3** Contexts, experiences, and cultural experiences and expectations are external factors that filter perceptions of the world. **2.1.A.4** Perceptual principles proposed by Gestalt psychology (closure, figure and ground, proximity, and similarity) help explain how humans organize their perceptual world. **2.1.A.5** Attention is an interaction of sensation and perception that is affected by internal and external processes. **2.1.A.5.i** Some experiences of attention can be selective, such as with the cocktail party effect, where people attend to mentions of their names or specific topics in loud or distracting environments. **2.1.A.5.ii** Inattention can lead to a type of “blindness” to aspects of the environment. Change blindness occurs when changes to the environment are not perceived due to inattention.
- **2.1.B** Explain how visual perceptual processes produce correct or incorrect interpretations of stimuli. **2.1.B.1** Binocular depth cues of retinal disparity (the difference between the images projecting onto the retina) and convergence (the merging of the retinal images by the brain) utilize images from each eye to provide perception of depth. 2.1.B.2 Monocular depth cues (relative clarity, relative size, texture gradient, linear perspective, and interposition) give the illusion of depth on flat or two-dimensional surfaces. *Exclusion Statement: The AP Psychology Exam will only address the listed monocular depth cues in EK 2.1.B.2.* **2.1.B.3** Visual perceptual constancies maintain the perception of an object even when the images of the object in the visual field change. **2.1.B.4** Apparent movement can be visually perceived even when objects are not actually moving.
- **2.2.A** Explain how psychological concepts and theories account for thinking, problem-solving, judgment, and decision-making. **2.2.A.1** Concepts form the basis of thought. Prototypes are the ideal

example for any given concept. **2.2.A.2** People form and modify schemas, or frameworks for thinking, through assimilation (taking in new information but not changing the schema in light of it) and accommodation (taking in new information and changing the schema to incorporate the new information). **2.2.A.3** Algorithms address problems by attempting all possible solutions until the correct one is found. **2.2.A.4** Heuristics address problems by using mental shortcuts to make judgments. Using heuristics can lead to errors in judgment when decisions are made according to prior expectations or stereotypes (representativeness heuristic) or recallingthefirstormostvividexamplethat comes to mind (availability heuristic). **2.2.A.5** Decision making can be influenced by prior experiences that were successful (mental set) or circumstances surrounding a decision (priming and framing). **2.2.A.6** Cognitive processes such as gambler's fallacy and sunk-cost fallacy can hinder people from making good decisions. **2.2.A.7** Executive functions are cognitive processes thatallowindividualstogenerate,organize, plan, and carry out goal-directed behaviors and experience critical thinking. **2.2.A.8** Creativity is a way of thinking that includes generating novel ideas and engaging in divergent (versus convergent) thinking. Creative thinking is hindered by functional fixedness.

- **2.3.A** Explain how the types, structures, and processes of memory work. **2.3.A.1** Memories for learned knowledge, events, and experiences are differentiated by how they are processed by, stored in, and retrieved by the brain. **2.3.A.1.i** Explicit memory is a type of memory that is more easily described or explained to others. Types of explicit memory include episodic and semantic. **2.3.A.1.**ii Implicit memory is more challenging to describe or explain to others. Procedural memory is a type of implicit memory for procedures and processes. **2.3.A.1.iii** Prospective memory is a type of memory related to future actions. 2.3.A.2 Long-term potentiation, a process by which synaptic connections between neurons become stronger with frequent activation, is a biological process for memory. **2.3.A.3** The working memory model examines how our primary memory system—working memory— engages in a dynamic interaction with several components, namely the central executive, phonological loop, and visuospatial sketchpad, to process information into long-term memory. **2.3.A.4** The multi-store model proposes three interacting systems (sensory memory [including iconic and echoic memory], short-term memory, and long-term memory) that information must pass through to be remembered. This model focuses on the impact of automatic effortful processing on memory encoding, storage, and retrieval. **2.3.A.5** The levels of processing model proposes that memory is encoded on three levels from shallowest to deepest: structural, phonemic, and semantic.
- **2.4.A** Explain how different encoding processes work to get information into memory. **2.4.A.1** Encoding involves processes and strategies to get information into memory. How information is encoded can determine how effectively information is stored and retrieved. **2.4.A.2** Mnemonic devices, such as method of loci, are processes that aid in encoding information into working and long-term memory. **2.4.A.3** Encoding can be improved by the process of grouping information together into meaningful chunks ("chunking"), categories, or hierarchies. **2.4.A.4** Thespacingeffectisaprocessthatcan causesignificantdifferencesinencodingand memory consolidation depending on whether the information is encoded all at once (massed practice) or distributed over time (distributed practice). **2.4.A.5** Encodingprocessescanbeaffectedbythe order of how the information is presented, called the serial position effect. The serial position effect predicts that information presented at the beginning of a list (primacy effect) or the end of a list (recency effect) will be more memorable than information presented in the middle of a list.
- **2.5.A** Explain how memory storage processes retain information in memory. **2.5.A.1** Sensory memory, short-term memory, working memory, and long-term memory are processes that differ in storage

duration, capacity, and content. **2.5.A.2** Storage may be prolonged by rehearsing information over time (maintenance rehearsal). Rehearsing information over time in ways that promote meaning (elaborative rehearsal) helps with memory retention. **2.5.A.3** Some people demonstrate highly superior autobiographical memory which may indicate that there are biological processes for superior memory storage. Autobiographical memory may also explain why memories connected to our own lives or selves are more memorable. **2.5.A.4** Storage processes may be negatively affected by physical impairment and developmental limitations, such as amnesia (retrograde and anterograde), Alzheimer's disease, and infantile amnesia.

- **2.6.A** Explain how memory retrieval processes get information out of memory. **2.6.A.1** The process of memory retrieval occurs through recall (remembering without cues) or recognition (which relies on retrieval cues). **2.6.A.2** The process of memory retrieval can be enhanced when people are in the same environmental space (context-dependent memory), mood (mood-congruent memory), or physical state (state-dependent memory) as they were when they encoded the information to be retrieved. **2.6.A.3** Successful retrieval is more likely when using retrieval practice processes, including testing effect and metacognition.
- **2.7.A** Explain possible reasons why memory failure or errors may occur. **2.7.A.1** The forgetting curve shows that time is a significant factor in forgetting. Forgetting occurs rapidly after initial learning and levels off overtime. **2.7.A.2** Many memories are difficult to retrieve due to encoding failure, interference (proactive or retroactive), or inadequate retrieval (i.e.,tip-of the-tongue phenomenon). **2.7.A.3** Psychodynamic theorists believe that information or memories can be forgotten to defend the ego from distress (repression). **2.7.A.4** The accuracy of memories may be affected by the misinformation effect, source amnesia, or constructive memory (via memory consolidation and imagination inflation).
- **2.8.A** Explain how modern and historical theories describe intelligence. **2.8.A.1** Throughout history, consensus about how to define and measure intelligence continues to be elusive and can be subject to bias. Researchers debate whether intelligence is a general ability (called g) or is comprised of multiple abilities.
- **2.8.B** Explain how intelligence is measured. **2.8.B.1** Early formal intelligence tests yielded an intelligence quotient (IQ), which divided mental age by chronological age. In modern times, IQ scores are often used to identify students for educational services. *Exclusion Statement: Labeling or describing cognitive abilities and disabilities are outside the scope of the AP Psychology Exam*. **2.8.B.2** All psychological assessments, including intelligence tests, should adhere to sound psychometric principles to be considered useful. **2.8.B.2.i** A test is said to be standardized when it is administered using consistent procedures and environments. **2.8.B.2.ii** A test is considered valid if it measures what it is designed to measure. Types of validity include construct and predictive. **2.8.B.2.iii** A test is considered reliable if it yields similar results each time it is administered. Types of reliability include test-retest and split-half. **2.8.B.3** Researchers strive to develop assessments of intelligence that are socio-culturally responsive to reduce stereotype threat and potential inequity that may occur due to stereotype lift.
- **2.8.C** Explain how systemic issues relate to the quantitative and qualitative uses of intelligence assessments. **2.8.C.1** IQ scores across much of the world have generally increased over time (Flynn Effect) due to societal factors, such as higher socioeconomic status and access to better health care and better nutrition. **2.8.C.2** IQ scores tend to vary more within a group than between groups. Personal and sociocultural biases can impact the interpretation of individual IQ scores and the score's relationship with other outcomes. Poverty discrimination and educational inequalities can negatively influence intelligence scores of individuals and societal groups around the world. **2.8.C.3** Scores from

intelligence tests have been used to limit access to jobs, military ranks, educational institutions, and immigration to the US.

- **2.8.D** Explain how academic achievement is measured and experienced as compared to intelligence. **2.8.D.1** Some academic tests attempt to measure what someone knows (achievement tests) or predict how someone will perform in the future (aptitude tests). **2.8.D.2** People's beliefs about whether intelligence is fixed from birth (fixed mindset) or malleable due to experience (growth mindset) can affect academic achievement.

Process (College Board Scientific Practice Suggested Skills):

- **1.A** Apply psychological perspectives, theories, concepts, and research findings to a scenario.
- **1.B** Explain how cultural norms, expectations, and circumstances, as well as cognitive biases apply to behavior and mental processes.
- **2.A** Determine the type of research design(s) used in a given study.
- **2.B** Evaluate the appropriate use of research design elements in experimental methodology.
- **2.C** Evaluate the appropriate use of research design elements in non-experimental methodologies.
- **2.D** Evaluate whether a psychological research scenario followed appropriate ethical procedures.
- **3.A** Identify Psychology-related concepts in descriptions or representations of data.
- **3.B** Calculate and interpret measures of central tendency, variation, and percentile rank in a given data set.
- **3.C** Interpret quantitative or qualitative inferential data from a given table, graph, chart, figure, or diagram.
- **4.A** Propose a defensible claim.
- **4.B** Provide reasoning that is grounded in scientifically derived evidence to support, refute, or modify an established or provided claim, policy, or norm.

Reflective (Essential Questions):

- Can you always trust your senses?
- Why don't people always make good decisions?
- What strategies do you use to help you remember important things?
- Why aren't our memories recorded by the brain exactly how we experienced them?

FOCUS STANDARDS

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AP Psychology

UNIT 3: Development and Learning

ESSENTIAL QUESTION	BIG IDEAS
How do biological, cognitive, and environmental factors come together to influence growth throughout the lifespan?	Students will... • apply psychological perspectives, theories, concepts, and research findings. (Scientific Practice 1: Application) • evaluate qualitative and quantitative research methods and study designs (Scientific Practice 2: Research) • evaluate representations of psychological concepts in quantitative and qualitative research, including tables, graphs, charts, figures, and diagrams. (Scientific Practice 3: Data Interpretation) • develop and justify psychological arguments using evidence. (Scientific Practice 4: Argumentation)

GUIDING QUESTIONS

Content (College Board Learning Objective and Essential Knowledge)

- **3.1.A** Explain how enduring themes inform developmental psychology. **3.1.A.1** Developmental psychology is concerned with both chronological order of development and/ or thematic issues in development across the lifespan. Thematic issues of interest to developmental psychologists include stability and change, nature and nurture, and continuous and discontinuous stages of development.
- **3.1.B** Describe ways cross sectional and longitudinal research design methods used in developmental psychology inform understanding about behavior and mental processes.
- **3.2.A** Explain how physical development before birth applies to behavior and mental processes. **3.2.A.1** Teratogens, maternal illness, genetic mutations, hormonal, and environmental factors can influence the major physical and psychological milestones that occur during prenatal development. *Exclusion Statement: The stages of prenatal development (zygote, embryo, and fetus) are outside the scope of the AP Psychology Exam*.
- **3.2.B** Explain how physical development in infancy and childhood apply to behavior and mental processes. **3.2.B.1** Physical development in infancy and childhood happens in generally the same order, but the timing of the development can vary. The development of fine and gross motor coordination is among the major physical and psychological milestones that define infancy and childhood. These physical skills develop as children mature, allowing children to develop critical skills needed to become more independent. **3.2.B.2** Infants possess reflexes, like the rooting reflex, that indicate on-track physical and psychological milestone development. **3.2.B.3** Research using the visual cliff apparatus demonstrates an early ability in infants to perceive depth and an innovative way to assess infant responses. **3.2.B.4** Research suggests that critical or sensitive periods in infancy and childhood have strong developmental effects, especially for skills such as language. Some non-human animals will imprint on the first object they encounter as a means of survival.
- **3.2.C** Explain how physical development in adolescence applies to behavior and mental processes.

3.2.C.1 The main physical and psychological milestones that occur in adolescence are the adolescent growth spurt and puberty, in which reproductive ability develops. Adolescents develop primary and secondary sex characteristics during this time, such as menarche and spermarche.

- **3.2.D** Explain how physical development in adulthood applies to behavior and mental processes. **3.2.D.1** Adulthood spans most of the lifespan and is characterized by a general leveling off and then a varying decline in reproductive ability (i.e., menopause), mobility ,flexibility, reaction time, and visual and auditory sensory acuity.
- **3.3.A** Describe how sex and gender influence socialization and other aspects of development.
- **3.4.A** Explain how theories of cognitive development apply to behavior and mental processes. **3.4.A.1** According to Piaget, children develop schemas via continuous and discontinuous processes such as assimilation and accommodation. **3.4.A.1.i** The sensorimotor stage occurs from infancy through toddlerhood. Object permanence develops during this stage. **3.4.A.1.ii** The preoperational stage occurs from toddlerhood through early childhood. Childrenbecomeproficientinusingmental symbols and engage in pretend play. The preoperational stage is identified more by cognitive tasks children cannot perform such as conservation and reversibility, or by those they exhibit, such as animism and egocentrism. Children begin to develop a theory of mind during this stage. **3.4.A.1.iii** The concrete operational stage occurs from early through late childhood. Children in this stage can generally correct the cognitive errors made in the preoperational stage and understand the world in logical, realistic, and straightforward ways, but struggle to think systematically. **3.4.A.1.iv** The formal operational stage occurs from late childhood through adulthood. People in this stage gain the ability to think abstractly and hypothetically. Piaget proposed that not all people achieve formal operational thinking. **3.4.A.2** According to Vygotsky, children are social learners who learn through interacting with and scaffolding by other people within sociocultural contexts. Ideally, learning occurs while the person is in their zone of proximal development. **3.4.A.3** Adults experience changes in cognitive capabilities as they progress through the lifespan. Crystallized intelligence remains relatively stable through adulthood while fluid intelligence tends to wane as people age. Cognitive disorders that affect adults include dementia.
- **3.5.A** Explain how key components of language and communication apply to behavior and mental processes. **3.5.A**.1 Language is a shared (mutually agreed upon) system of arbitrary symbols (often expressed as and combined into phonemes, morphemes, and semantics) that are rule-governed (via grammar and syntax) and generative to produce an infinity of ideas. *Exclusion Statement: Pragmatics of language are outside the scope of the AP Psychology Exam.*
- **3.5.B** Explain how language develops in humans. **3.5.B.1** In language development across all cultures, people use nonverbal manual gestures (e.g., pointing) to communicate and develop formal language through specific stages (cooing, babbling, one-word stage, and telegraphic speech). People learning a language often make errors such as overgeneralization of language rules as they learn.
- **3.6.A** Explain how social development relates to behavior and mental processes. **3.6.A.1** The ecological systems theory explores how the social environment influences development. The five systems in this theory are as follows: § Microsystem (groups that have direct contact with the individual) § Mesosystem (the relationships between groups in the microsystem) § Exosystem (indirect factors in an individual's life) § Macrosystem (cultural events that affect the individuals and others around them) § Chronosystem (the individual's current stage of life). **3.6.A.2** Research has identified different parenting styles of caregivers, including authoritarian, authoritative, and permissive. Cultural differences exist in the ways these parenting styles affect outcomes in caregivers and children. **3.6.A.3** Research has identified different attachment styles demonstrated by infants and children, which vary by culture. The types of attachment infants and children display include secure and insecure (avoidant,

anxious, and disorganized). Temperament is related to how children attach to caregivers. **3.6.A.3.i** Separation anxiety occurs when children express heightened anxiety or fear when away from a caregiver or in the presence of a stranger. **3.6.A.3.ii** Studies with monkeys demonstrate the importance of comfort over food in attachment. **3.6.A.4** Developmental psychologists study how peer relationships develop over time. **3.6.A.4.i** Children engage with peers via play (parallel and pretend). **3.6.A.4.ii** Adolescents gradually rely more on peer relationships as they age. As adolescents interact with peers, they demonstrate a type of egocentrism that is often demonstrated via the imaginary audience and the personal fable. **3.6.A.5** Developmental psychologists study how adults develop socially over time. **3.6.A.5.i** Culture plays a role in determining when adulthood begins and when major life events occur (social clock). Some cultures allow for a time of emerging adulthood as a transition from adolescence to adulthood. **3.6.A.5.ii** Relationships with other adults result in adults forming families or family-like relationships that should provide mutual support and care. Childhood attachment styles can affect how adults form attachments to other adults. **3.6.A.6** The stage theory of psychosocial development, which was a reconceptualization of the psychosexual theory, proposes that people must resolve psychosocial conflicts at each stage of the lifespan. The stages are as follows: § Trust and mistrust § Autonomy and shame and doubt § Initiative and guilt § Industry and inferiority § Identity and role confusion § Intimacy and isolation § Generativity and stagnation § Integrity and despair. *Exclusion Statement: The psychosexual stage theory of development is outside of the scope of the AP Psychology Exam.* **3.6.A.7** The experience of adverse childhood experiences (ACEs) has effects on relationships people form throughout the lifespan. Sociocultural differences exist in what is considered an ACE and how ACEs affect outcomes people may experience. **3.6.A.8** Adolescents develop a sense of identity for whom they will be as an adult through the processes of achievement, diffusion, foreclosure, and moratorium. Identity development also includes processes for developing identities such as racial/ethnic identity, gender identity, sexual orientation, religious identity, occupational identity, and familial identity, often through considering possible selves.

- **3.7.A** Explain how classical conditioning applies to behavior and mental processes. **3.7.A.1** The behavioral perspective evolved from theories about learning via conditioning. Behaviorists have traditionally focused on observable behavior to the exclusion of mental processes. **3.7.A.2** Classical conditioning focuses on the association of one stimulus with another stimulus to elicit a response. Learning the association (also known as acquisition) involves a series of steps that demonstrate principles of associative learning. **3.7.A.2.i** The unconditioned stimulus (UCS) elicits an unconditioned response (UCR). This response becomes the conditioned response (CR) when it is performed in response to the conditioned stimulus (CS). **3.7.A.2.ii** The order of presentation of the CS with the UCS is important to successful acquisition. **3.7.A.2.iii** A CR can become extinct when the CS is no longer paired with the UCS. A formerly extinct CR can be spontaneously recovered when the CS and UCS are paired together again. **3.7.A.2.iv** Stimulus discrimination and generalization have been demonstrated in studies of classical conditioning. **3.7.A.2.v** A CS can be used as a UCS in higher-order conditioning. *Exclusion Statement: Delayed conditioning, trace conditioning, simultaneous conditioning, and backward conditioning are outside the scope of the AP Psychology Exam.* **3.7.A.3** Research has demonstrated that emotional responses can be classically conditioned. These findings form the basis of therapeutic interventions for many mental disorders, such as counterconditioning. *Exclusion Statement: The expectancy theory is outside the scope of the AP Psychology Exam.* **3.7.A.4** Research on taste aversions, which are acquired through classical conditioning, demonstrates one-trial conditioning and biological preparedness. One-trial learning occurs when the association is acquired through one pairing of the stimulus and response and is not strengthened by further pairings.

Biological preparedness refers to how animals are biologically predisposed to learning certain stimulus-response pairings more quickly than others. **3.7.A.5** Habituation occurs when organisms grow accustomed to and exhibit a diminished response to a repeated or enduring stimulus.

- **3.8.A** Explain how operant conditioning applies to behavior and mental processes. **3.8.A.1** Operant conditioning focuses on associating consequences (reinforcement and punishment) with behaviors. The Law of Effect states that behaviors with reinforcing consequences are more likely to be repeated while behaviors with punishing consequences are not as likely to be repeated. **3.8.A.2** Reinforcement and punishment can be positive or negative. Reinforcers can be primary or secondary. Reinforcement discrimination and generalization have been demonstrated in studies of operant conditioning. **3.8.A.3** Reinforcement can be used to shape behavior ("shaping") gradually through rewarding successive approximations of the desired behavior. Research with animals shows that only certain behaviors can be shaped through reinforcement (known as instinctive drift). **3.8.A.4** Superstitious behavior occurs when consequences reinforce unrelated behaviors. Learned helplessness occurs when organisms learn that they have no control over their experience of aversive consequences in a given situation. **3.8.A.5** The schedule with which reinforcement is delivered can determine the strength of the association between the consequence and the response. The two main types of reinforcement schedules are continuous and partial. Each type of reinforcement behavior can be graphed, resulting in a distinctive pattern onthegraph(e.g., fixed-interval schedule produces a scalloped graph). **3.8.A.5.i** Continuous reinforcement schedules deliver reinforcement for each and every correct behavior. **3.8.A.5.ii** The partial reinforcement schedules focus on whether reinforcement is delivered on a time-based schedule (fixed or variable interval) or for the number of behaviors performed (fixed or variable ratio).
- **3.9.A** Explain how social learning applies to behavior and mental processes. **3.9.A.1** Social learning theory proposes that learning can occur by observation and does not have to involve personal experience with a consequence (vicarious conditioning). Learning can occur by copying the behavior of models. The more similar a model is, the more likely the behavior is to be learned.
- **3.9.B** Explain how cognitive factors in learning apply to behavior and mental processes. **3.9.B.1** Insight learning occurs when the solution to a problem occurs without any association, consequence, or model being present. **3.9.B.2** Latent learning occurs when information is learned without reinforcement but is not immediately evident. Latent learning is often demonstrated by cognitive maps.

Process (College Board Scientific Practice Suggested Skills):

- **1.A** Apply psychological perspectives, theories, concepts, and research findings to a scenario.
- **1.B** Explain how cultural norms, expectations, and circumstances, as well as cognitive biases apply to behavior and mental processes.
- **2.A** Determine the type of research design(s) used in a given study.
- **2.B** Evaluate the appropriate use of research design elements in experimental methodology.
- **2.C** Evaluate the appropriate use of research design elements in non-experimental methodologies.
- **2.D** Evaluate whether a psychological research scenario followed appropriate ethical procedures.
- **3.A** Identify psychology-related concepts in descriptions or representations of data.
- **3.B** Calculate and interpret measures of central tendency, variation, and percentile rank in a given data set.
- **3.C** Interpret quantitative or qualitative inferential data from a given table, graph, chart, figure, or diagram.
- **4.A** Propose a defensible claim.

- **4.B** Provide reasoning that is grounded in scientifically derived evidence to support, refute, or modify an established or provided claim, policy, or norm.

Reflective (Essential Questions):

- Are you the same person now as you were when you were 10 years old?
- Do you think you will be the same person in 10 years as you are now? Why or why not?
- How do parents know if their baby is hungry?
- How can you unlearn a bad habit and replace it with a new, better one?

FOCUS STANDARDS

Kansas History, Government, and Social Studies Standards

- Standard 1: Choices have consequences.
- Standard 2: Individuals have rights and responsibilities.
- Standard 3: Societies are shaped by the identities, beliefs, and practices of individuals and groups.
- Standard 4: Societies experience continuity and change over time.
- Standard 5: Relationships among people, places, ideas, and environments are dynamic.

AP Psychology

UNIT 4: Social Psychology and Personality

ESSENTIAL QUESTION	BIG IDEAS
How do external social factors and internal personality variables influence an individual's behavior and mental processes?	Students will... • apply psychological perspectives, theories, concepts, and research findings. (Scientific Practice 1: Application) • evaluate qualitative and quantitative research methods and study designs (Scientific Practice 2: Research) • evaluate representations of psychological concepts in quantitative and qualitative research, including tables, graphs, charts, figures, and diagrams. (Scientific Practice 3: Data Interpretation) • develop and justify psychological arguments using evidence. (Scientific Practice 4: Argumentation)

GUIDING QUESTIONS

Content (College Board Learning Objective and Essential Knowledge)

- **4.1.A** Explain how attribution theory applies to behavior and mental processes. **4.1.A.1** Attributions are how people explain behavior and mental processes of themselves and others. Dispositional attributions relate to internal qualities of others (such as intelligence or personality) while situational attributions relate to external circumstances that are experienced. **4.1.A.2** People demonstrate a predictable pattern of attributions called explanatory style. Explanatory style is how people explain good and bad events in their lives and in the lives of others. Explanatory style can be optimistic or pessimistic. **4.1.A.3** People are subject to biases in their attributions. Those biases include actor/observer bias, fundamental attribution error, and self-serving bias, all of which can affect behavior and mental processes.
- **4.1.B** Explain how locus of control (internal and external) applies to behavior and mental processes.
- **4.1.C** Explain how person perception applies to behavior and mental processes. **4.1.C.1** People's perception of how much they like something can be influenced by the mere exposure effect. The mere exposure effect occurs when people are exposed to a stimulus repeatedly over time, which causes them to like the stimulus more. **4.1.C.2** People can behave in ways that elicit behaviors fromothersthatconfirmtheirbeliefsor perceptions about themselves or others (self fulfilling prophecy). **4.1.C.3** Social comparison is a type of person perception that occurs when people evaluate themselves based on comparisons to other members of society or social circles. Social comparison can be upward or downward. People often judge their own sense of deprivation relative to others (relative deprivation).
- **4.2.A** Explain how stereotypes and implicit attitudes contribute to the behaviors and mental processes of prejudice and discrimination. **4.2.A.1** A stereotype is a generalized concept about a group. Stereotypes can help reduce cognitive load when making decisions or judgments. Stereotypes can be the cause and/or result of biased perceptions and experiences and are frequently the basis of

prejudiced attitudes and discriminatory behaviors. **4.2.A.2** Implicit attitudes are those that individuals hold but may be unaware of or may not acknowledge. Research has focused on how implicit attitudes reflect negative evaluations of others, as demonstrated by the just-world phenomenon, out-group homogeneity bias, ingroup bias, or ethnocentrism.

- **4.2.B** Explain how belief perseverance and cognitive dissonance apply to attitude formation and change. **4.2.B.1** Belief perseverance occurs when a belief persists even if evidence suggests it is not accurate. People experiencing belief perseverance may engage in confirmation bias, thereby clinging to an attitude or belief regardless of the evidence for or against it. **4.2.B.2** Cognitive dissonance refers to the mental discomfort that occurs when actions or attitudes are in conflict. People are motivated to reduce the discomfort by changing either actions or attitudes to be more in line with each other.
- **4.3.A** Explain how the social situation affects behavior and mental processes. **4.3.A.1** Social norms define expectations and roles a society may have for its members in individual and social situations. **4.3.A.2** Social influence theory proposes that social pressure to behave or think in certain ways can be normative or informational. **4.3.A.3** Persuasion refers to the techniques applied to convince the self or others of particular ideas, actions, or beliefs. **4.3.A.3.i** Persuasion can depend on the route to persuasion. The elaboration likelihood model outlines two main routes to persuasion: central and peripheral. The halo effect is an example of a peripheral route to persuasion. **4.3.A.3.ii** Persuasion can depend on how information is presented, as demonstrated by the foot-in-the-door and the door-in-the-face techniques. **4.3.A.4** Research on conformity clarifies the conditions that strengthen the likelihood of people adhering to unspoken rules, norms, or expectations. **4.3.A.5** Research on obedience clarifies the conditions that strengthen the likelihood of people complying with the directives of an authority figure.
- **4.3.B** Explain how being in a group can affect an individual's behavior and mental processes. **4.3.B.1** Cultural phenomena such as individualism, collectivism, and multiculturalism can influence how one perceives and behaves toward oneself and others. **4.3.B.2** Being a member of a group can influence how one behaves or experiences mental processes via group polarization, groupthink, diffusion of responsibility, social loafing, and deindividuation. **4.3.B.3** Performing a mental or physical behavior in front of a group can lead to social facilitation. **4.3.B.4** People often overestimate the levels to which others agree with them, known as the false consensus effect. **4.3.B.5** Superordinate goals serve to unite disparate groups under a common goal and help reduce negative affect and stereotyping among groups. Social traps occur when individuals do notuniteandactintheirownself-interestto the detriment of the group. **4.3.B.6** Industrial-organizational(I/O)psychologists study how people perform in the workplace. I/O psychologists study best practices in management of work, relationships among people working together or for a common company or program, and how people feel about work (burnout).
- **4.3.C** Explain how prosocial behavior affects behavior and mental processes. **4.3.C.1** Altruism refers to selfless behavior, but some researchers suggest that people act in prosocial ways due to incurring social debt. The social reciprocity norm and the social responsibility norm explain this type of behavior. **4.3.C.2** The bystander effect demonstrates that situational and attentional variables predict whether someone is likely to help another person.
- **4.4.A** Explain how the psychodynamic theory of personality defines and assesses personality. **4.4.A.1** According to the psychodynamic theory of personality, unconscious processes drive personality. *Exclusion Statement: The stage theory of psychosexual development is out of scope for the AP Psychology Exam.* **4.4.A.2** Ego defense mechanisms (denial, displacement, projection, rationalization, reaction formation, regression, repression, and sublimation) serve to protect the ego unconsciously from threats. **4.4.A.3** Psychodynamic personality psychologists assess personality using projective

tests that are designed to probe the preconscious and unconscious mind.

- **4.4.B** Explain how the humanistic theory of personality defines and assesses personality. **4.4.B.1** According to humanistic psychology, personality focuses on unconditional regard and the self-actualizing tendency as primary motivating factors. *Exclusion Statement: Maslow's hierarchy of needs is outside the scope of the AP Psychology Exam.*
- **4.5.A** Explain how the social cognitive theory of personality defines and assesses personality. **4.5.A.1** According to social-cognitive theory, reciprocal determinism shapes personality. Reciprocal determinism explores self-concept (how one views themselves and in relation to others) and how self-efficacy and self-esteem both contribute to self-concept.
- **4.5.B** Explain how trait theories of personality define and assess personality. **4.5.B.1** Trait theories of personality conclude that personality involves a set of enduring characteristics that lead to typical responses to stimuli. **4.5.B.2** The Big Five theory of personality proposes that traits of agreeableness, openness to experience, extraversion, conscientiousness, and emotional stability make up one's personality. These traits are measured by specialized personality inventories that use factor analysis to organize item responses.
- **4.6.A** Explain how theories about motivation apply to behavior and mental processes. **4.6.A.1** Some theories about motivation focus on behavior and mental processes that seek to address physical needs and desires such as drive-reduction theory and arousal theory. Drive-reduction theory addresses how certain behaviors help maintain homeostasis while arousal theory addresses how people seek an optimal level of arousal when they behave (as demonstratedbytheYerkes-DodsonLaw). **4.6.A.2** Self-determination theory proposes that people are motivated by intrinsic (internal) or extrinsic (external) motivations. Incentive theory explores the role of rewards (an extrinsic motivation) in motivating behavior. **4.6.A.3** Many non-human animals are motivated by instincts (innate, typically fixed patterns of behavior in animals in response to certain stimuli). Humans do not seem to demonstrate instinctual behavior or mental processes. **4.6.A.4** Lewin's motivational conflicts theory proposes that choices create conflicts one must resolve as the basis of motivation. The type of conflicts faced include approach-approach, approach avoidance, and avoidance-avoidance. **4.6.A.5** Sensation-seeking theory proposes that one's level of need for varied or novel experiences is the basis of motivation. The types of sensation seeking are experience seeking, thrill or adventure seeking, disinhibition, and boredom susceptibility. **4.6.B** Explain how eating and belongingness motivate behavior and mental processes. **4.6.B.1** Eating is a complex motivated behavior that demonstrates how physical and mental processes interact. **4.6.B.1.i** Hormones, such as ghrelin and leptin (regulated by the hypothalamus via the pituitary gland), regulate feelings of hunger and satiety. **4.6.B.1.ii** External factors like the presence of food, time of day, or social gatherings around meals also influence the behavior of eating.
- **4.7.A** Explain how theories of emotion apply to behavior and mental processes. **4.7.A.1** Emotion, or affect, is a complex psychological process that is distinguished from reasoning or knowledge. Emotions reflect internal and external factors affecting an individual. Early 20th century psychological theories of emotion parsed the distinction between the physiological and cognitive experiences of emotion. Some theories proposed that the physiological and cognitive experiences occurred in succession while others proposed that they occurred simultaneously. Other theories emphasize that the cognitive label is required to experience an emotion. The facial-feedback hypothesis suggests that the experience of emotion is influenced by facial expressions, which supports theories that propose the physiological experience of emotion precedes the cognitive appraisal, and research testing this hypothesis has produced mixed results. *Exclusion Statement: Specific names of theories of emotion are outside the scope of the AP Psychology Exam.* **4.7.A.2** The broaden-and-build theory of emotion

proposes that positive emotional experiences tend to broaden awareness and encourage new actions and thoughts. Negative emotions tend to reduce awareness and narrow thinking and action.

- **4.7.B** Explain how social norms and experiences influence the expression of emotions. **4.7.B.1** Research has explored whether the expression of emotions is universally common. Some emotions that may be commonly experienced across cultures include anger, disgust, sadness, happiness, surprise, and fear. Research on the universality of emotions shows mixed results. **4.7.B.2** Display rules and elicitors for emotional expression can differ among cultures. Display rules and elicitors may regulate how people from different genders,ages,or socioeconomic classes within a culture can display and interpret emotions.

Process (College Board Scientific Practice Suggested Skills):

- **1.A** Apply psychological perspectives, theories, concepts, and research findings to a scenario.
- **1.B** Explain how cultural norms, expectations, and circumstances, as well as cognitive biases apply to behavior and mental processes.
- **2.A** Determine the type of research design(s) used in a given study.
- **2.B** Evaluate the appropriate use
- **2.C** Evaluate the appropriate use of research design elements in non-experimental methodologies.
- **2.D** Evaluate whether a psychological research scenario followed appropriate ethical procedures.
- **3.A** Identify Psychology-related concepts in descriptions or representations of data.
- **3.B** Calculate and interpret measures of central tendency, variation, and percentile rank in a given data set.
- **3.C** Interpret quantitative or qualitative inferential data from a given table, graph, chart, figure, or diagram.
- **4.A** Propose a defensible claim.
- **4.B** Provide reasoning that is grounded in scientifically derived evidence to support, refute, or modify an established or provided claim, policy, or norm.

Reflective (Essential Questions):

- Do people act the same when they are alone versus when they are in a group? Why or why not?
- How do expectations, biases, and attitudes affect our relationships with ourselves and others?
- Why do you do what you do?
- Is your “why” determined by your personal choices or what you are rewarded to do?

FOCUS STANDARDS

Kansas History, Government, and Social Studies Standards

- Standard 1: Choices have consequences.
- Standard 2: Individuals have rights and responsibilities.
- Standard 3: Societies are shaped by the identities, beliefs, and practices of individuals and groups.
- Standard 4: Societies experience continuity and change over time.
- Standard 5: Relationships among people, places, ideas, and environments are dynamic.

AP Psychology

UNIT 5: Mental and Physical Health

ESSENTIAL QUESTION	BIG IDEAS
How can an integrated approach and evidence-based practices help understand and treat psychological disorders?	Students will... • apply psychological perspectives, theories, concepts, and research findings. (Scientific Practice 1: Application) • evaluate qualitative and quantitative research methods and study designs (Scientific Practice 2: Research) • evaluate representations of psychological concepts in quantitative and qualitative research, including tables, graphs, charts, figures, and diagrams. (Scientific Practice 3: Data Interpretation) • develop and justify psychological arguments using evidence. (Scientific Practice 4: Argumentation)

GUIDING QUESTIONS

Content (College Board Learning Objective and Essential Knowledge)

- **5.1.A** Explain how health psychology addresses issues of physical health and wellness as they apply to behavior and mental processes.
- **5.1.B** Explain how stress applies to behavior and mental processes. **5.1.B.1** Stress is a factor in heightened susceptibility to disorders and disease. Stress has been linked to physiological issues such as hypertension, headaches, and immune suppression. **5.1.B.2** Stressors can be viewed as motivating (eustress) or debilitating (distress). Stressors can be experienced as traumatic or as daily hassles that can build up over time. Adverse childhood experiences (ACEs) are sources of stress that can affect a person throughout the lifespan.
- **5.1.C** Explain how reactions to stress apply to behavior and mental processes. **5.1.C.1** The general adaptation syndrome (GAS) describes the process of experiencing stress. Initially, alarm reaction occurs when the stress is encountered. Then, a resistance phase occurs as the stress is confronted (via a fight-flight-freeze response). Finally, an exhaustion phase occurs when the stress subsides, or resources are spent. The greatest susceptibility to illness occurs during the exhaustion phase. 5.1.C.2 The tend-and-befriend theory proposes that some people react to stress by tending to their own needs and/or the needs of others and seeking connection with others. This phenomenon seems to occur mostly in women.
- **5.1.D** Explain how the ways that people cope with stress applies to behavior and mental processes. **5.1.D.1** Problem-focused coping involves seeing stress as a problem to be solved and working solutions until a solution is found. **5.1.D.2** Emotion-focused coping involves managing emotional reactions to stress as a means of coping. Strategies that are emotion-focused may include deep breathing, meditation, or taking medication aimed at reducing stressful emotional responses.
- **5.2.A** Explain how positive psychology approaches the study of behavior and mental processes. **5.2.A.1** Positive psychology seeks to identify factors that lead to well-being, resilience, positive

emotions, and psychological health.

- **5.2.B** Explain how positive subjective experiences apply to behavior and mental processes. **5.2.B.1** Expressing gratitude, a positive subjective experience, increases subjective well-being. **5.2.B.2** People who exercise their signature strengths or virtues report higher levels of positive objective experiences such as happiness and subjective well-being. A Classification of character strengths has been developed around 6 categories of virtues: wisdom, courage, humanity, justice, temperance, and transcendence. **5.2.B.3** Posttraumatic growth, a positive subjective experience, may result after the experience of trauma or stress.
- **5.3.A** Describe the approaches used to define behaviors and mental processes as psychological disorders. **5.3.A.1** Level of dysfunction, perception of distress, and deviation from the social norm are all factors used to identify psychological disorders. **5.3.A.2** Diagnosing or classifying psychological disorders has positive and negative consequences depending on the nature of the disorder, the individual being diagnosed, and the presence of cultural/societal norms, stigma, racism, sexism, ageism, and discrimination. **5.3.A.3** Diagnosing psychological disorders requires specialized training and the use of evidence based diagnostic tools. The American Psychiatric Association developed the Diagnostic and Statistical Manual (DSM) of Mental Disorders to classify mental disorders. TheWorldHealthOrganizationdevelopedthe InternationalClassificationofMentalDisorders (ICD) to classify mental disorders. These classification systems are updated regularly to be responsive to new research and practice advances.
- **5.3.B** Explain how psychological perspectives define psychological disorders. **5.3.B.1** Most psychologists employ an eclectic approach (using more than one psychological perspective) when diagnosing and treating clients. **5.3.B.2** The behavioral perspective proposes that the causes of mental disorders focus on maladaptive learned associations between or among responses to stimuli. **5.3.B.3** The psychodynamic perspective proposes that the causes of mental disorders focus on unconscious thoughts and experiences, often developed during childhood. **5.3.B.4** The humanistic perspective proposes that the causes of mental disorders focus on a lack of social support and being unable to fulfill one's potential. **5.3.B.5** The cognitive perspective proposes that the causes of mental disorders focus on maladaptive thoughts, beliefs, attitudes, or emotions. **5.3.B.6** The evolutionary perspective proposes that the causes of mental disorders focus on behaviors and mental processes that reduce the likelihood of survival. **5.3.B.7** The sociocultural perspective proposes that the causes of mental disorders focus on maladaptive social and cultural relationships and dynamics. **5.3.B.8** The biological perspective proposes that the causes of mental disorders focus on physiological or genetic issues.
- **5.3.C** Explain how interaction models define psychological disorders. **5.3.C.1** The biopsychosocial model assumes that any psychological problem potentially involves a combination of biological, psychological, and sociocultural factors. **5.3.C.2** The diathesis-stress model assumes that psychological disorders develop due to a genetic vulnerability (diathesis) in combination with stressful life experiences (stress).
- **5.4.A** Describe the symptoms and possible causes of selected neurodevelopmental disorders. **5.4.A.1** Neurodevelopmental disorders are a group of disorders with onset occurring during the developmental period. Symptoms of neurodevelopmental disorders focus on whether the person is exhibiting behaviors appropriate for their age or maturity range. *Selected disorders in scope for AP Psychology in this category are attention-deficit/ hyperactivity disorder (ADHD) and autism spectrum disorder (ASD)*. **5.4.A.2** Possible causes of neurodevelopmental disorders may be environmental, physiological, or genetic in nature.

- **5.4.B** Describe the symptoms and possible causes of selected schizophrenic spectrum disorders. **5.4.B.1** Schizophrenic spectrum disorders are characterized by issues in one or more of these five areas: delusions, hallucinations, disorganized thinking or speech, disorganized motor behavior, and negative symptoms. Schizophrenia can be experienced as an acute or chronic condition. **5.4.B.1.i** Delusions (false beliefs) are positive symptoms and may manifest in ways such as delusions of persecution or grandeur. **5.4.B.1.ii** Hallucinations (false perceptions) are positive symptoms and may involve one or more of the senses. **5.4.B.1.iii** Disorganized thinking or speech is a positive symptom and may manifest as speaking in ways such as speaking in a word salad (stringing together words in nonsensical ways). **5.4.B.1.iv** Disorganized motor behavior may manifest as catatonia. Catatonia, or disordered movement, may be experienced as excitement (a positive symptom manifestation) or stupor (a negative symptom manifestation). **5.4.B.1.v** Negative symptoms present as the lack of a typical behavior, such as the lack of emotional expression (flat affect) or lack of movement (catatonic stupor). **5.4.B.2** Possible causes of schizophrenia suggest a genetic or biological link, such as prenatal virus exposure or imbalances with certain neurotransmitters (dopamine hypothesis).
- **5.4.C** Describe the symptoms and possible causes of selected depressive disorders. **5.4.C.1** Depressive disorders are characterized by the presence of sad, empty, or irritable mood along with physical and cognitive changes that affect a person's ability to function. *Selected disorders in scope for AP Psychology in this category are major depressive disorder and persistent depressive disorder.* **5.4.C.2** Possible causes of depressive disorders focus on biological, genetic, social, cultural, behavioral, or cognitive sources.
- **5.4.D** Describe the symptoms and possible causes of selected bipolar disorders. **5.4.D.1** Bipolar disorders are characterized by periods of mania and periods of depression. Bipolar cycling involves experiencing periods of depression and mania in alternating periods that can last various amounts of time. *Selected disorders in scope for AP Psychology in this category are Bipolar I disorder and Bipolar II disorder.* **5.4.D.2** Possible causes of bipolar disorders focus on biological, genetic, social, cultural, behavioral, or cognitive sources.
- **5.4.E** Describe the symptoms and possible causes of selected anxiety disorders. **5.4.E.1** Anxiety disorders are characterized by excessive fear and/or anxiety with related disturbances to behavior. Selected disorders in scope for AP Psychology in this category are specific phobia, agoraphobia, panic disorder, social anxiety disorder, and generalized anxiety disorder. **5.4.E.1.i** Specific phobia involves fear or anxiety toward a specific object or situation, such as acrophobia (heights) or arachnophobia (spiders). **5.4.E.1.ii** Agoraphobia is intense fear of specific social situations, including using public transportation, being in open spaces, being in enclosed spaces (e.g., shops, theaters, etc.), standing in line or being in a crowd, or being outside of the home alone. **5.4.E.1.iii** Panic disorder involves the experience of panic attacks (unanticipated and overwhelming biological, cognitive, and emotional experiences of fear/anxiety). Panic disorder can manifest as a culture bound anxiety disorder such as ataque de nervios (experienced mainly by people of Caribbean or Iberian descent). **5.4.E.1.iv** Social anxiety disorder involves the intense fear of being judged or watched by others. Social anxiety disorder is distinct from but may include agoraphobia. *Taijin kyofusho* is a culture-bound anxiety disorder experienced mainly by Japanese people in which people fear others are judging their bodies as undesirable, offensive, or unpleasing. **5.4.E.1.v** Generalized anxiety disorder (GAD) involves prolonged experiences of nonspecific anxiety or fear. **5.4.E.2** Possible causes of anxiety disorders focus on learned associations between and among stimuli, maladaptive thinking or emotional responses, and biological or genetic sources. **5.4.F** Describe the symptoms and possible causes of selected obsessive-compulsive disorders and related disorders. **5.4.F.1** Obsessive-compulsive and

related disorders are characterized by the presence of obsessions (intrusive thoughts) and compulsions (intrusive, often repetitive, behaviors intended to address obsessions). Selected disorders in scope for AP Psychology in this category are obsessive-compulsive disorder and hoarding disorder. **5.4.F.2** Possible causes of obsessive-compulsive disorders involve learned associations between and among stimuli, maladaptive thinking or emotional responses, and biological or genetic sources.

- **5.4.G** Describe the symptoms and possible causes of selected dissociative disorders. **5.4.G.1** Dissociative disorders are characterized by dissociations from consciousness, memory, identity, emotion, perception, body representation, motor control, and behavior. Selected disorders in scope for AP Psychology in this category are dissociative amnesia (with and without fugue) and dissociative identity disorder. **5.4.G.2** Possible causes of dissociative disorders involve the experience of trauma or stress.
- **5.4.H** Describe the symptoms and possible causes of selected trauma and stressor-related disorders. **5.4.H.1** Trauma and stressor-related disorders are characterized by exposure to a traumatic or stressful event with subsequent psychological distress. Symptoms of trauma and stressor related disorders may involve hypervigilance, severe anxiety, flashbacks to traumatic or stressful experiences, insomnia, emotional detachment, and hostility. *The selected disorder in scope for AP Psychology in this category is posttraumatic stress disorder.* **5.4.H.2** Possible causes of trauma and stressor-related disorders involve the experience of trauma or stress.
- **5.4.I** Describe the symptoms and possible causes of selected feeding and eating disorders. **5.4.I.1** Feeding and eating disorders are characterized by altered consumption or absorption of food that impairs health or psychological functioning. *Selected disorders in scope for AP Psychology in this category are anorexia nervosa and bulimia nervosa.* **5.4.I.2** Possible causes of feeding and eating disorders focus on biological, genetic, social, cultural, behavioral, or cognitive sources.
- **5.4.J** Describe the symptoms and possible causes of selected personality disorders. **5.4.J.1** Personality disorders (which fall into three clusters)arecharacterizedbyenduring patterns of internal experience and behavior that is deviant from one's culture; is pervasive and inflexible;begins in adolescence or early adulthood; is stable over time; and leads to personal distress or impairment. **5.4.J.1.i** Cluster A is the odd or eccentric cluster and includes paranoid, schizoid,and schizotypal personality disorders. **5.4.J.1.ii** Cluster B is the dramatic, emotional, or erratic cluster and includes antisocial, histrionic, narcissistic, and borderline personality disorders. **5.4.J.1.iii** Cluster C is the anxious or fearful cluster and includes avoidant, dependent, and obsessive-compulsive personality disorders. **5.4.J.2** Possible causes of personality disorders focus on biological, genetic, social, cultural, behavioral, or cognitive sources.
- **5.5.A** Describe research and trends in the treatment of psychological disorders. **5.5.A.1** Many researchers who have conducted metaanalytic studies of psychotherapy conclude that psychotherapies are generally effective. Many psychologists use evidence-based interventions to develop treatment plans. Therapists should exhibit cultural humility and establish a therapeutic alliance with the client to deliver therapy successfully. **5.5.B** Describe research and trends in the treatment of psychological disorders. **5.5.B.1** Due to the increased use and effectiveness of psychotropic medication therapy, hospitals and asylums deinstitutionalized massive numbers of people in the late 20th century. Therapists now prefer to treat in decentralized ways, often with a combination of medication and psychological therapies.
- **5.5.C** Describe ethical principles in the treatment of psychological disorders. **5.5.C.1** Psychologists in clinical or therapeutic situations must follow certain ethical principles as established by the APA, including nonmaleficence, fidelity, integrity, and respect for people's rights and dignity.

- **5.5.D** Describe techniques used with psychological therapies. **5.5.D.1** Psychodynamic therapies employ free association and dream interpretation to uncover the unconscious mind. **5.5.D.2** Cognitive therapies may employ cognitive restructuring or fear hierarchies to combat maladaptive thinking. Cognitive therapy proposes that people should focus on the cognitive triad—negative thoughts about oneself, the world, and the future. **5.5.D.3** Applied behavior analysis involves applying principles of conditioning to address mental disorders and developmental disabilities. Exposure therapies (such as systematic desensitization), aversion therapies, and token economies all employ principles of applied behavior analysis. Biofeedback uses principles of conditioning to help clients regulate body systems (such as the sympathetic and parasympathetic nervous systems) that contribute to feelings of anxiety or depression. **5.5.D.4** Cognitive-behavioral therapies, such as dialectical behavior therapy and rational-emotive behavior therapy, combine techniques from the cognitive and behavioral perspectives to treat mental and behavioral disorders. **5.5.D.5** Therapy from the humanistic perspective, commonly referred to as person-centered therapy, employs active listening and unconditional positive regard.
- **5.5.E** Explain how group therapy is different from individual therapy.
- **5.5.F** Describe effective uses of hypnosis. **5.5.F.1** Hypnosis has shown effectiveness in treating pain and anxiety. Research does not support the use of hypnosis to retrieve accurate memories or regress in age.
- **5.5.G** Describe interventions derived from the biological perspective. **5.5.G.1** Psychoactive medications, such as antidepressants, antianxiety drugs, lithium, or antipsychotic medications, interact with specific neurotransmitters in the central nervous system to address possible biochemical causes of mental disorders. Psychoactive medications can have side effects such as tardive dyskinesia (a movement disorder related to the regulation of dopamine in the nervous system). **5.5.G.2** Surgical or invasive interventions include psychosurgery (which may involve lesioning), TMS (transcranial magnetic stimulation), or electroconvulsive therapy. The lobotomy is a form of psychosurgery that was popular in the mid-20th century but is rarely, if ever, performed today.

Process (College Board Scientific Practice Suggested Skills):

- **1.A** Apply psychological perspectives, theories, concepts, and research findings to a scenario.
- **1.B** Explain how cultural norms, expectations, and circumstances, as well as cognitive biases apply to behavior and mental processes.
- **2.C** Evaluate the appropriate use of research design elements in non-experimental methodologies.
- **2.D** Evaluate whether a psychological research scenario followed appropriate ethical procedures.
- **3.A** Identify Psychology-related concepts in descriptions or representations of data.
- **3.B** Calculate and interpret measures of central tendency, variation, and percentile rank in a given data set.
- **3.C** Interpret quantitative or qualitative inferential data from a given table, graph, chart, figure, or diagram.
- **4.A** Propose a defensible claim.
- **4.B** Provide reasoning that is grounded in scientifically derived evidence to support, refute, or modify an established or provided claim, policy, or norm.

Reflective (Essential Questions):

- How do psychologists define“normal” behaving, thinking, and acting?
- How can we apply health, positive, and clinical psychology principles to change our lives, organizations, and communities in positive ways?

- Where can someone find help if they think they or someone they care about is experiencing a psychological illness?

FOCUS STANDARDS

Kansas History, Government, and Social Studies Standards

- Standard 1: Choices have consequences.
- Standard 2: Individuals have rights and responsibilities.
- Standard 3: Societies are shaped by the identities, beliefs, and practices of individuals and groups.
- Standard 4: Societies experience continuity and change over time.
- Standard 5: Relationships among people, places, ideas, and environments are dynamic.