

**GCSE (9–1)**  
*Teacher Guide*

# PSYCHOLOGY

J203  
For first teaching in 2017

## A Guide to Key Concepts

Version 2



# GCSE (9–1) PSYCHOLOGY

## Introduction

This resource is to be used as a guide to help provide teachers and students with an understanding of the key concepts used within GCSE (9-1) Psychology.

Please always refer to the specification <http://www.ocr.org.uk/Images/309306-specification-accredited-gcse-psychology-j203.pdf> for full details as the GCSE assessment will be based on content from the specification.

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## Criminal psychology

### Different types of crime including: violent, drug related, acquisitive, sexual, and anti-social offences

Different types of crime include **violent offences** such as Grievous Bodily Harm (GBH), assault and murder, which are crimes in which the offender uses or threatens to use violent force upon the victim. **Drug related offences** can be defined as possessing manufacturing or distributing illegal substances. In **acquisitive offences** the criminal obtains material gain through crimes such as burglary, robbery and theft. **Sexual offences** such as rape, sexual assault and indecent assault may engage another person in an unwanted sexual act, this can be through force or threat. Finally, **anti-social offences** involve acting in a way that causes distress to others, these offences include vandalism, street drinking and begging.

### Criminal behaviour as a social construct including deviation from norms and the role of culture in defining criminal/anti-social behaviour

In every society we have written/unwritten rules and **norms**, which may differ from place to place. Breaking unwritten rules such as pushing in front of someone in a queue would be frowned upon, but is unlikely to be classed as a criminal or anti-social behaviour. Cultures vary in their beliefs, morals, knowledge and customs and so they have different views on what is acceptable behaviour. Individuals in that culture follow these norms and as a result a social construct of behaviour is formed. Deviations from these norms are likely to depart from the rules of law and are therefore categorised as criminal behaviour.

What is classified as criminal behaviour may be a construct of religious beliefs in a culture, which can result in abortion, drinking alcohol and homosexuality to be defined as criminal acts. Alternatively, the way in which a society views women can result in women being prohibited from certain acts. For example, in Saudi Arabia it is illegal for women to travel abroad without the consent of a male relative. While in the UK an increased knowledge of the risks of passive smoking led to a ban on smoking in enclosed public places.

### How crime is measured: official statistics and self-report

Crime is measured in a number of different ways including; official statistics of crimes recorded by or reported to the police, prison and court statistics, surveys conducted with the general public (including victims) on their experiences of crime, and offender surveys.

The rates of crimes reported from these methods vary, as you would expect data from victims surveys report significantly higher levels of crime than the other methods. This however does not mean that that measure of crime is incorrect, it just provides a different perspective on criminal activity.

Police statistics reflect crimes that have come to their attention. They are categorised into different types of crime and can give an indication of what times of crimes are becoming more and less common. These statistics are compiled by different police forces and therefore allow comparisons between different areas of the country. However, for a number of reasons police statistics are likely to be an underestimation of the true picture of criminal behaviour. This is due to some crimes going unreported because the victims may feel it is not worth reporting, because they are scared of potential negative consequences if they do, or they may not even realise they have been victims of crime. Furthermore, if it is reported the police may not view the act as criminal or even if they do, they may not be able to take action. Therefore, for all these reasons the 'crime' will not be recorded in the official statistics.

Prison and court statistics are also an unrepresentative way of measuring crime due to the reasons previously mentioned, but also due to difficulties they may have in catching the suspect and/or gathering evidence to convict the criminal. While prison statistics may be considered reflective of particularly harsh or lenient sentencing of that time.

**Self-report methods** such as the Crime Survey of England and Wales (CSEW) samples a large number of people about their experiences, attitudes and perceptions of crime. This method of measuring crime produces figures that are significantly higher than official statistics. While offender surveys ask members of the public what crimes they have committed recently, for obvious reasons this is likely to lead to the under-reporting of crime.

## Development

### Stages of development; pre-natal; childhood; adolescence; and adulthood.

The brain begins to develop as an embryo with **neurons** starting to form; at five weeks cells develop and divide to form the 100 billion neurons that an infant's brain has at birth. As soon as these neurons are formed they begin to migrate to different areas of the brain and some synapses begin to develop.

It's estimated that at around three years of age a child has around 1000 trillion **synapses**, which are later selectively pruned. From birth to around 6 years of age many brain structures and functions develop significantly.

From seven years to adulthood neural connections are still being pruned. During this time the wiring of brain still in white matter increases and assists with speeding up electrical impulses and brain connections. The prefrontal cortex is the last area of the brain to fully develop. As the prefrontal cortex is involved in the control of impulses and decision-making, this can explain why some teenagers engage in high levels of risk taking behaviour.

In our early 20's our brains will be fully developed and will be performing at an optimal level. Finally, the brain reaches its peak power around age 22 and lasts for around 5 more years at this level of performance. **Episodic memories** start to decline, processing slows and working memory begins losing its capacity. As we get into older age brain cells start to deplete in areas such as the **hippocampus** which can have a negative impact on our memories.

### The development of brain structures and functions; the nervous system; neurons; synapses; and their interaction in development of the brain.

The **nervous system** includes the central and peripheral nervous systems. The **Central Nervous System** (CNS) consists of the brain and the spinal cord. Within our brains there are neurons; these are brain cells within the nervous system which transmit chemical messages in the brain called **neurotransmitters**. A synapse is the small gap between neurons which allows chemicals to diffuse and bind with receptors on another neuron and therefore stimulating further neurotransmitters.

The **cerebrum** is the largest part of the human brain and is divided into four separate lobes which are responsible for separate functions.

The **frontal lobe** is the emotional centre of the brain and influences our decisions making processes. It is also home of the **dopamine system** (involved in schizophrenia) and short term memory functions.

The **parietal lobe** is responsible for processing sensory information and in the coordination of spatial information so that we can make sense of the world around us. The parietal lobe is in the middle of the brain above the occipital lobe.

The **temporal lobe**. This lobe is also the location of the primary auditory cortex, which is important for interpreting the sounds and the language we hear and is located on the bottom of the brain

The **occipital lobe** is at the back of the brain behind the parietal and temporal lobes. Its main role is being responsible for processing auditory information.

### IQ tests as a measure of intelligence.

**Intelligence Quotient (IQ)** tests are a standardised way of measuring intelligence whereby an individual will receive an IQ score after taking the test. The average IQ score is around 100. In order to become a member of the high IQ society 'Mensa' you must score 130 or higher, which is in the top 2% of the population. In 1905 the world's first intelligence test The Simon-Binet Test was conducted. In 1944 the most widely used test of adult intelligence, the Wechsler Adult Intelligence Scale (WAIS) was developed. IQ tests assess different types of intelligence such as fluid intelligence tests; which measures logic and problem solving and crystallised intelligence tests; which measure knowledge and language skills. While Howard Gardner's theory of multiple intelligences suggest that intelligence is not a single general ability, but is made up of eight abilities: musical-rhythmic, visual-spatial, verbal-linguistic, logical-mathematical, bodily-kinaesthetic, interpersonal, intrapersonal, and naturalistic, which can all be tested for.

## Psychological problems

An introduction to mental health:

Ways of defining mental health, including the mental health continuum

In 1958 Marie Jahoda developed a criteria of 6 items for ideal mental health; if people did not possess these characteristics they would be susceptible to mental illness. This idea came from the view that we are able to tell if someone is physically healthy, so we should be able to do the same for mental health. The 6 characteristics required for ideal mental health are: self-actualisation, resistance to stress, autonomy, an accurate perception of reality, positive attitudes to self, and environmental mastery. However critics claimed that this criteria was unrealistic and therefore the majority of people would be defined as mentally ill.

A more recent way of defining mental health is the **mental health continuum** which suggests that mental health and wellbeing are changeable, from temporary to permanent, with periods of mental distress and times of no distress, and between optimum and poor mental health. This is applicable for people with and without diagnosed mental disorders; even though someone may have a diagnosis of a serious mental health problem they may be coping well with life and have a positive wellbeing and as a result are at maximum mental wellbeing on their mental health continuum. Conversely, someone else may have no diagnosable mental health disorder but have poor mental wellbeing. <http://www.wellscotland.info/about>

The current prevalence of mental health problems, including current statistics and differences between age, gender; and sexual orientation

According to [Time to Change](#), one in ten young people experience a mental health problem; that's three in an average classroom. While in the overall UK population it is thought that 1 in 4 people will experience a mental health problem each year, this prevalence rate of mental health problems has not changed significantly in recent years.

The [Mental Health Foundation \(2016\)](#) reports that women are more likely than men to be diagnosed with a mental health problem. This difference is most pronounced in anxiety disorders, with almost twice as many females having this diagnosis compared to males. There are number of reasons for this difference, one being that men are less likely to seek help for mental health problems. Sadly in 2011, 6,581 suicides in the UK were recorded. Male rates remain consistently higher than female suicide rates. The highest suicide rate in the UK in 2014 was for men aged 45-49 so this demonstrates that men are clearly affected by mental health problems..

The Mental Health Foundation report that around 18% of the UK population are over 65. Many older people experience isolation and various health problems, these difficulties are likely to contribute to the fact that around 22% of male pensioners and 28% of female pensioners are affected by depression.

Research conducted by the [National Alliance of Mental Illness \(NAMI\)](#) has found that members of the LGBTQ community are nearly 3 times more likely than others to experience mental health problems. This is likely to be caused by being discriminated against because of their sexual orientation. Young LGBTQ people are 4 times more likely to attempt suicide, experience suicidal thoughts or engage in self-harm than heterosexual people. The LGBT support charity Metro asked 7,000 16 to 24-year-olds about their experiences. The survey found 42% of young LGBT people have sought medical help for anxiety or depression and 44% have considered suicide.

The incidence of significant mental health problems over time, including changing classification similarities and differences and how attitudes have changed towards mental health in the UK since the 1959 Mental Health Act

Twenge (2015) reports that significant mental health problems such as **clinical depression** and anxiety disorders are significantly higher in all age groups and across a range of countries, than they were in previous decades. There is a steady increase between the 1930s and the early 1990s. There is little doubt that anxiety and depression increased between these decades. However, since the early 1990s some disorders remain consistent in their prevalence rates, while others continue and diagnosis of others drops. The increase in the incidence of significant mental health problems may be due to the stresses of modern life, an increased willingness to diagnose, or because of an increased awareness and reduction in **stigma** towards mental illness and therefore people are more likely to seek help.

Latest research shows a record number of people in England saying they would be willing to live, work and have a relationship with someone who has experience of a mental health problem. Public attitudes have also improved by 6% over the last three years, which equates to more than 2.5 million people with improved attitudes people with mental health problems.

The **Diagnostic Statistical Manual (DSM)** which is used in the USA, and **the International Classification of Disorders (ICD)** which is used in the majority of other countries are the 'bibles' of mental health diagnostics which provide a list of all psychological disorders and additional information such as the symptoms required for diagnosis, subtypes, prevalence, how the disorder develops, risk factors and prognosis and diagnosis issues related to gender and culture.

There are 18 different categories of disorders in the DSM-5. This includes those usually diagnosed in childhood, cognitive disorders, substance-related disorders, mood disorders, anxiety disorders, sexual and gender identity disorders, eating disorders, sleep disorders and personality disorders. These diagnostic manuals are regularly updated and we are currently on the 5th version of the DSM. Although many disorders have been included in all versions some are added, others removed and some are amended. The updates reflect what is going on in society: it is hard to believe that homosexuality was removed from the DSM only 30 years ago, while addictions such as gambling disorder, tobacco use disorder and internet gaming have been recently added. Autism spectrum disorder (ASD) is a new DSM-5 name. ASD now encompasses the previous (autism), Asperger's disorder, childhood disintegrative disorder, and pervasive developmental disorder.

Since 2009, Time to Change have been involved in The [National Attitudes to Mental Illness Survey](#) which tracks how public attitudes are changing over time. Since 2009 there have been positive attitudinal and intended behaviour changes, these include: 'a 9% increase in willingness to live with someone with a mental health problem (57% to 66%), an 8% increase in willingness to live nearby to someone with a mental health problem (72% to 80%) and a 7% willingness to continue a relationship with a friend who had a mental health problem (82% to 89%)'. However, attitudes have not completely changed, nearly 40% of respondents agreed that those with a mental illness are prone to violence, when in reality they are more likely to be a victim.

Attitudes have come a long way since the [Mental Health Act of 1959](#), the introduction of this was a positive step to changing attitudes. The act sought to deinstitutionalise mental health patients and encouraged the development of community care. The term mental disorder was also introduced and was made distinct from 'learning disability' and abolished terms such as 'lunatic and idiot' in relation to mental illness. These positive steps help to begin to change attitudes and mental asylums shut down and there was a move towards community care.

## The effects of significant mental health problems on the individual and society:

### The effects of stigma on individuals before and after diagnosis

Although attitudes towards mental health are improving, there are still a significant number of people who face some form of stigma and/or discrimination from friends, family and the public. Mental health stigma can take the form of social stigma whereby prejudicial attitudes are directed towards individuals with mental health problems. When a diagnosis is made people may be labelled as mentally ill and are therefore thought of in a negative way. In addition to this people may also have self-stigma, this is the internalising of their perceptions of shame because of the way they are feeling and worries about how others may view them. Such thoughts can lead to the individual not wanting to seek help and receive a diagnosis and treatment (Davey, 2013). Time to Change's Attitudes Survey reports that 48% of people said they would feel uncomfortable in telling their employer of a mental health problem. This clearly demonstrates the stigma still associated with mental illness.

### The effects of discrimination on individuals before and after diagnosis

Time to Change states that both "stigma and discrimination" has a profound impact on the lives of people with mental health problems. The overwhelming majority of people with mental health problems report being misunderstood by family members, shunned and ignored by friends, work colleagues and health professionals, called names and much worse by neighbours. This is reflected by 17% of respondents in Time to Change's attitudes survey not agreeing with the statement: 'no one has the right to exclude people with a mental illness from their neighbourhood'

'Improved knowledge helps to reduce stigma and discrimination, which we know have a profound impact on the lives of young people affected by mental health problems; preventing them from fulfilling their potential or seeking help, and leading to loneliness, worse recovery outcomes and loss of confidence.'

## The effects of significant mental health problems on the wider society, including care in the community

The purpose of care in the community is to help people manage their mental health problems in the community, in which they live, offered include supported accommodation, counselling, social work support, home help, day centres and workplace opportunities. This enables people recovering from mental illness to be integrated into the community, rather than being isolated in a mental institution and therefore normalising mental illness.

Leff *et al.* (2000) reported that community care has enhanced the lives of more than 500 patients who were discharged from two long-stay psychiatric hospitals. Benefits included improving domestic and social skills and social relationships and friendships. When in hospital, 30% of patients said they wished to remain there, but after five years in the community nearly 100% said they were happy outside the hospital environment, most wished to remain in their community homes, while others had ambitions to live independently.

## Social Influence

### Conformity including majority influence

Conformity is where an individual changes their behaviour to go along with other people. This could be wearing similar clothes or liking the same music as their friends. This is most likely to occur through majority influence whereby a group of people display behaviours that are copied. Individuals may conform in order to fit in with the group norms (to fit in) or be liked, this is known as normative conformity. (bold text word). Conformity may also occur because of a desire to be correct (informational) (bold text key term). This usually occurs when a person lacks knowledge and looks to the group for guidance, which they accept and adopt.

### Key Concept - Obedience including obeying the orders of authority figures

Obedience is where we follow the orders or commands of another person, this person is usually someone of a higher status and are an authority figure such as teacher or a police officer. We are more likely to obey a legitimate authority figure, whose authority may be signified through a uniform.

### Key Concept - Collective and crowd behaviour including pro-social and anti-social behaviour

According to Le Bon (1895):

*'by the mere fact that he forms part of an organised crowd, a man descends several rungs in the ladder of civilisation. Isolated, he may be a cultivated individual; in a crowd he is a barbarian – a creature acting by instinct.'*

This quote suggests that being a member of a crowd can cause anti-social behaviour because we lose our sense of reality and the constraints on our normal behaviour are weakened. This can be seen in crowd violence such as football hooliganism and riots, in such situations aggression and violence can occur as can looting and muggings. However, crowds can sometimes lead to pro-social behaviour; at musical festivals, religious gathering and peaceful protest marches there is often a feeling of togetherness and collectiveness, while when disasters occur crowds of people will pull together and support one another.

## Memory

The topic of memory is part of the cognitive area of psychology. Cognitive psychologists are interested in the way that we think and how we mentally process information. Often the analogy 'the mind is like a computer' is used when studying cognitive functions such as the stages of **information processing in memory**. If these cognitive processes are not used or are overloaded and cannot be accessed then we will be unable to recall the information. The ability to perform cognitive tasks are determined by our brains and memory is no different. When our brains are functioning properly we are able to form and maintain memories well, with different brain areas being responsible for different types of memory. However, if a person suffers **neurological damage**, then associated brain functions and cognitive processes will also be damaged. A consequence of this can be memory loss (Amnesia) and this can affect different parts of memory depending on what brain structures the neurological damage affects.

### The stages of information processing: input; encoding, storage, retrieval and output

After studying the OCR GCSE Psychology course you will know lots about psychology and you will use this information in your exams and even in everyday life. The ability to use this knowledge is because the information has passed through the stages of information processing and has reached the 'output' stage.

The first stage of information processing is **input**; in this stage data (as with the computer analogy) enters our memory from our environment which could be something we see, hear, touch or smell. However, if we do not do anything with this information then it will not be processed any further.

Secondly, what has been inputted will then be **encoded** which means converting this information in into a simpler form; for example a less detailed image.

After encoding has been successful then **storage** will occur. This means that the information has been saved in our memory and can be accessed when required.

Fourthly, memories are then recalled in the cognitive process known as **retrieval**. In this stage we must think in order to access the memory. Retrieval may an easy process if you are asked a simple question such as your name, or something more difficult to access such as what you did after school a week last Thursday. If you are unable to retrieve the information, it may be that it was not encoded in the first place.

As previously mentioned, the final stage is **output**, which is actually *doing* something with your stored memory.

### Types of forgetting: decay; displacement, retrieval failure (lack of cues)

There are three **types of forgetting** that you need to know for the exam, so by knowing *why* forgetting occurs might stop you from forgetting this important information! Forgetting is when you cannot **output** the information.

**Decay** occurs over time. Tooth decay occurs if we do not look after our teeth, while memory decay is due to not looking after our memories such as not rehearsing or recalling them. Unless memories are processed into our **long term memory (LTM)**, **short term memory (STM)** decay this can occur after about 30 seconds due to the limited duration of this part of memory. However, in LTM this process can take longer, although LTMs can last forever, if we do not think about certain events from our past then details can fade.

**Displacement** is the result of one memory taking over from another. Our LTM has unlimited capacity, so displacement will not occur here. However, in our STM we only have a capacity of around 7 items, so for example when trying to remember a list of numbers those at the beginning of the list are likely to be displaced from our STM by those at the end (although those at the beginning may go into the LTM).

**Retrieval Failure (Lack of Cues)** is a reason that we forget things from our LTM. Even though information has been stored in our memories we cannot retrieve it. This is due to **lack of cues**, which are triggers to help us **recall** information. These cues are known as **context cues**; for example if you learn information in the classroom but take the exam in the exam hall you could have difficulty remembering some information because of the change of environment/context. **State cues** such as mood can help us retrieve information, but without them memories may not be able to be retrieved.

The structure and functions of the brain and how the brain works in the formation of memories; – how neurological damage can affect memory; the role of the hippocampus on anterograde amnesia; the frontal lobe on retrograde amnesia; and the cerebellum on procedural memory

The specification requires you to have knowledge and understanding of the structure and functions of the brain in various topic areas. In memory you are required to know about three areas of the brain which are responsible for different brain functions.

The **cerebellum** is near the back of the brain behind the brain stem and its main responsibility is for movement and co-ordination. Therefore the cerebellum also plays a part in retrieving and performing **procedural memories** such as walking or riding a bike. Damage to this part of the brain could lead problems remembering to carry out certain tasks.

**Forgetting** can be caused by neurological damage, this could be due to an accident or as a result of age. **Anterograde amnesia** is the inability to form new memories after brain damage has occurred (but LTM from before is undamaged). While **retrograde amnesia** is the inability to recall past memories from before the brain damage occurred (but new memories are often able to be formed).

The **hippocampus** is a small but important part of the brain, it is made up of two parts which are in the middle of your brain, just above your ears. This brain area is vital in the formation of new memories and therefore if it is damaged then anterograde amnesia can develop.

As the name suggests, the **frontal lobe** is located at the front of the brain and is one of four major areas of the brain and is involved in many functions such as problem solving, language and memory. Damage to this part of the brain has been linked to retrograde amnesia; where patients have particular difficulty recalling past events from their own lives and even famous news events.

## Sleeping and dreaming

The functions, features and benefits of sleep: healthy brain; physical repair; emotional stability; stages of the sleep cycle and when dreaming occurs; the role of the pineal gland and melatonin

It may seem obvious, but the main reason that we sleep is because we are tired. Sleeping can restore our body and mind and after a good night's sleep we will wake feeling refreshed.

The sleep cycle is made up of five stages; stages 1 and 2 are characterised by light sleep and we are easily woken, our body temperature drops and heart rate slows. Stages 3 and 4 are known as slow wave sleep because our brain waves are longer and slower (these are called delta waves). In this deeper sleep, growth hormones are produced and the body repairs itself. Finally we will enter **Rapid Eye Movement (REM)** sleep; this is where brain growth occurs in infants (who have lots of REM sleep) and memories and learning is consolidated and neurotransmitter levels are balanced which is beneficial for our emotional stability and mood. Furthermore, during REM our body becomes paralysed and vivid dreaming occurs. The sleep cycle lasts for about 90 minutes in adults and as the night goes on the amount of REM sleep increases.

## The causes of sleep disorders: sleep onset and sleep maintenance insomnia

**Insomnia** is one of the most common sleep disorders which is characterised as the difficulty getting to sleep (**sleep onset insomnia**) or staying asleep (**sleep maintenance insomnia**). There are a number of causes of insomnia, this can include being stressed and anxious which leads to the production of the hormone **cortisol** which alerts us and therefore causes difficulties sleeping. Sleep problems can be caused by a poor sleep routine which can interfere with the biological body set up. Sleep problems can also be caused by a poor sleeping environment such as a bedroom which is too light, noisy or uncomfortable. Carrying out other activities in the bedroom such as watching TV and playing computer games can lead to associating the bedroom with activity rather than sleep. While drinking drinks which contain caffeine such as coffee and energy drinks are also not advisable if you want a good night's sleep. While underlying health problems such as physical pain or mental illness can also contribute to developing sleep disorders.

## Endogenous pacemakers and exogenous zeitgebers and their role in sleep

An **endogenous pacemaker** is something within our brain or body which controls our biological rhythms, while **exogenous zeitgebers** are external time givers that also regulate these rhythms. These could be; amount of light, meal times, temperature, or even the time that our favourite TV programmes are on. One biological rhythm that they control is the **sleep wake cycle**.

The main pacemaker is a part of the brain called the **suprachiasmatic nucleus (SCN)** which are nerve cells within the **hypothalamus**. The SCN is able to detect the amount of light (the main zeitgeber) through the eye and then sends signals to another part of the brain called the **pineal gland** which then produces the hormone **melatonin** which induces sleep. Simply speaking, darkness produces melatonin which makes us sleep.

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