A Level Psychology

Preparation Work

NAME: _____

What is Psychology?

Psychology is the scientific study of the mind. Psychology is about understanding what makes people tick through studying the inner-workings of our complex brains. Psychological research can help to address problems and issues in society such as aggression, addiction and mental health.

Psychology uses scientific methodology, using observation, measurement and testing to investigate the thoughts and motivations behind human behaviour. Psychological studies have clear aims, procedures, results and conclusions.

Psychology at Wyke

- Two year course
- 100% examination (3 exams in summer 2022)
- Pearson Edexcel exam board

It is essential that you have an interest in science, good mathematical skills and like reading and writing (as there will be lots of it!). Psychology is a fascinating subject, helping you to better understand yourself and others.

Over the two-year course, you will prepare to sit 3 exam papers:

Paper 1: Foundations in Psychology *(including social, cognitive, biological and learning theories)*

Paper 2: Applications of Psychology *(Health and Clinical Psychology)*

Paper 3: Psychological skills *(including methods, issues and debates and a synoptic review of studies)*

Psychology Enrichment

We offer a number of enrichment options in college including the Psychology Student Society, guest speakers and the 'Brain Day' workshop. The Psychology Student Society meets during lunchtime once every two weeks, discussing current issues, latest research and documentaries. One of our guest speakers this year was Professor Ben Ambridge (University of Liverpool) who gave a talk on the psychology of everyday life.
The 'Brain Day' workshop is run by Dr Guy Sutton (Nottingham Medical School) and includes a sheep brain dissection and talk on mental health.

Watch part of Professor Ben Ambridge's talk here:
https://www.youtube.com/watch?v=LxCCOcf3d6M&list=PL6AAF0xhxeelmtKPnToIIICuWUNTOZ1jq&index=4&t=0s

Find out more about the 'Brain Day' workshop here:
https://www.facebook.com/WykeSixthFormCollege/videos/837223406771906/

We run an annual trip to London which centres on a phobias workshop at London Zoo. Clinical hypnotherapist, John Clifford, explains how the therapy works and puts the group under hypnosis (you can opt out!). This year, we also visited Bethlem Museum of the Mind and had tea in The Rainforest Cafe.

Find out more about our trip here:
https://www.youtube.com/watch?v=kK2xCBdQZLM

Your preparation work

The work in this booklet will provide you with essential foundation knowledge of three psychology approaches – social, cognitive and biological. You will also develop your essay writing and maths skills.

This booklet has 5 sections: social psychology, cognitive psychology, biological psychology, essay writing task and maths skills. Make sure you complete **all** of the work in each section.

- **Please bring your preparation work to your first Psychology lesson**

SECTION 1: Social psychology

Social psychology is one approach you will study as a psychology student. Social psychologists focus on the impact of our social environment, investigating the ways other people affect our thoughts, feelings and behaviour.
This section will examine **social influence**, focusing on the question: Why do people obey?

Obedience in the coronavirus pandemic

Consider the following scenarios. Write down your answers to these questions:

1. You meet up in the park with your boyfriend/girlfriend in the current lockdown and hug each other, breaking the social distancing guidelines. A police officer warns you that you will be fined if you continue to ignore social distancing rules. **Would you obey? Why/why not?**

2. You go to a supermarket in the current lockdown and do not follow the one-way system. A member of staff tells you off, reminding you that you must follow the one-way system. **Would you obey? Why/why not?**

3. Your best friend comes round to your house during lockdown. Your next door neighbour notices and threatens to report you to the police. **Would you obey? Why/why not?**

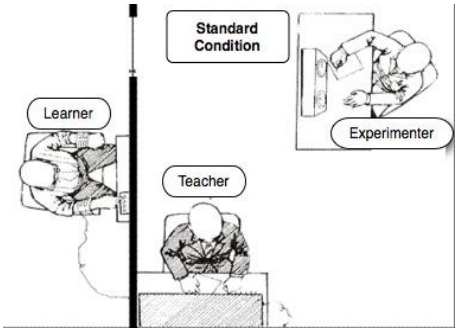
4. On Monday 23rd March, the Prime Minister told the British public that they must stay at home. People could only leave their homes for essential shopping, exercise, medical appointments or to support vulnerable people.
Why did most people obey?

5. Think about your answers to questions 1-4, list the main factors influencing obedience. Consider who is telling you off and their social standing.

Milgram's study of obedience (1963)

Social psychologists define obedience as following the demands of others, particularly those in positions of authority. In 1963, social psychologist, Stanley Milgram, set-up an experiment at Yale University to test how much pain an ordinary person would do to another person because he had been ordered to by an experimenter. The **aim** of Milgram's study was to investigate how obedient people would be, when asked by an authority figure to give electric shocks to another person. How far would people go? Would anyone deliver a deadly electric shock?

Milgram's **procedure** involved 40 male participants who volunteered to take part by responding to a newspaper advert. Participants were deceived (lied to), as Milgram told them it was a study of memory. The experiment involved a **teacher** (the participant) and a **learner** (an actor working for Milgram). The teacher asked the learner a series of questions. For every question the learner got wrong, the teacher had to give the learner an electric shock, increasing in voltage (power). The teacher thought they were giving the learner painful electric shocks (no actual shocks were given).



As the voltage increased, the teacher could hear the cries of the learner next door asking them to stop e.g. *"I can't stand the pain let me out of here".* The teacher got very worried and stressed, sweating, trembling and laughing nervously. The teacher asked the experimenter if they should continue giving electric shocks, the experimenter used **standardised 'prods'** to encourage them to keep going e.g. *"the experiment requires you to continue".*

So, what were the **results**? All of the participants obeyed the experimenter and delivered shocks up to a deadly 300 volts and 65% of participants gave shocks up to the maximum 450 volts.

In **conclusion**, Milgram argued that levels of obedience were due to **situational factors** (the situation that people find themselves in causes them to obey). Participants believed that the learner had volunteered to take part in a worthy purpose (to investigate memory at a well-respected University). So, participants felt they had to follow the experimenter's instructions and continue giving electric shocks, even though it was unpleasant for the learner. This is an example of **moral strain**. Moral strain happens when people obey the orders of an authority figure, even if they feel uncomfortable or that it is wrong, because it is for the greater good.

Now watch this original footage of Milgram' study: https://www.youtube.com/watch?v=mOUEC5YXV8U

1. The teacher could not see the learner. Do you think the teacher would have given such high electric shocks if the learner had been in the same room? Why/why not?

2. Explain how **situational factors** encouraged the teacher to obey the experimenter. Consider the following:
    - *Where is the experiment taking place?*
    - *What was the experimenter wearing? What's his status?*
    - *Where is the experimenter sitting in relation to the teacher?*
    - *What does the experimenter do to encourage the teacher to obey?*

3. Are you shocked by the results of Milgram's study? Why/why not?

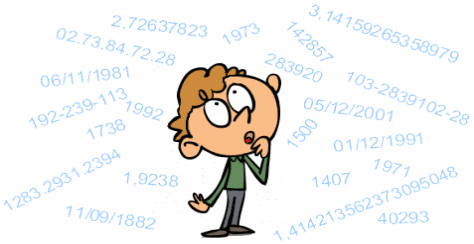
Let's now apply Milgram's study to explain people's behaviour in the coronavirus pandemic…

4. People who followed the UK government rules to stay at home experienced **moral strain**. Explain why. Consider what it's like being stuck at home and why people agreed to do it.

5. Make a list of **situational factors** that make people more likely to follow social distancing rules. Consider who the authority figures are and what they do to encourage obedience.

SECTION 2: Cognitive psychology

Another approach you will study in psychology is cognitive psychology, which involves studying mental processes (e.g. memory, attention, language) in order to understand how we view and respond to our world. This section focuses on **memory**; how do we remember things? How can you improve your memory?



Watch this: https://www.youtube.com/watch?v=LBY9cInZATQ

How do you remember things?

1. How do you revise for exams? Make a list

2. Read this article on 5 revision hacks and add to your list any strategies that you're not doing (yet!): https://blog.innerdrive.co.uk/5-proven-hacks-to-help-students-tackle-revision

3. How do you remember long numbers? Use any techniques?
   - **a)** Mobile phone number?
   - **b)** Your bank card number?

Do you use this strategy? https://www.youtube.com/watch?v=G8zjg3s2p1M

The multi-store model of memory

Use these links to research Atkinson and Shiffrin's multi-store model of memory:

- https://www.youtube.com/watch?v=7G9IK_mUmRE
- https://www.simplypsychology.org/simplypsychology.org-Multi-Store.pdf
- https://www.tutor2u.net/psychology/reference/multi-store-model-of-memory

TASK – Produce a poster, PowerPoint presentation or notes on the multi-store model of memory.

You must include:

- A description of the three storage systems of memory
- A diagram of the model

SECTION 3: Biological psychology

You will also study biological psychology, which investigates the influence of human biology on behaviour. Biological psychologists examine chemical activity in the brain, the role of hormones and genetic influences. Evolution and natural selection are also studied. This section will investigate **twin studies**; why do identical twins have so many similarities?

Why are identical twins so similar?

1. The Kray twins were involved in organised crime in the East End of London in the 1950s and 1960s. Their crimes included armed robbery, murder and assault. They were identical twins and both committed violent crimes.

Do you think their violent ways were down to their **genes** *(born that way)* or their **environment** *(influenced by those around them e.g. family, friends)*? **Explain your answer**

Now watch this short Ted Talk and answer the questions below: https://www.youtube.com/watch?v=c2__1Jrcpv4

2. Explain the difference between identical twins and fraternal (non-identical) twins.

3. Identical Jim twins grew up separately and did not meet until they were nearly 40 years old. Write down 3 things they had in common

4. Identical twins, Jack and Oskar, grew up in different environments.

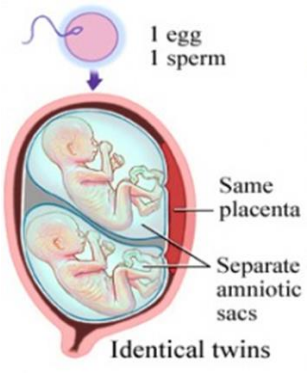
a. What did they both like to do? Make a list
b. What did they both hate?

Twin studies

Biological psychologists argue that the similarities of identical twins are down to their **genes** (what they were born with).

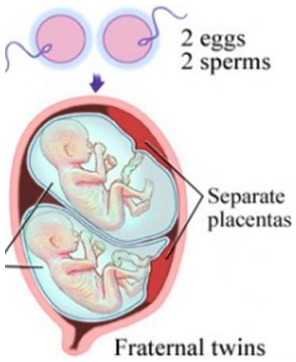
Identical twins

Known as **monozygotic (MZ)**, they come from one egg and one sperm. They share 100% of their genes and are always the same sex.



Non-identical twins

Known as **dizygotic (DZ)**, they come from two eggs and two sperm, so they can be a different sex. Their DNA is only as similar as that of any siblings. DZ share around 50% of their genes.



Twin studies allow us to investigate the **nature-nurture debate**. **Nature** is the view that human behaviour is down to our genes (what we are born with), while **nurture** is the view that behaviour is learned and due to environmental factors (e.g. parenting styles, peers and media influence).

Watch this short YouTube video: https://www.youtube.com/watch?v=BTYCv1ObZrI

Biological psychologists compare MZ and DZ twins in terms of **concordance rates** (this is the probability that if one twin shows behaviour, the other twin will also show it). If concordance rates are **higher for MZ twins** compared to DZ twins, the behaviour is more likely to have a **genetic** cause (because MZ twins share 100% of their genes). This provides support for the **nature** side of the nature-nurture debate.

TASK – Produce your own summary notes on twin studies (a summary is when you give the main points)

Twin studies are currently being used in scientific research into coronavirus…

Kings College London has studied 2,600 twins to investigate the role of genes and environmental factors in the development of coronavirus symptoms. **Read this article and answer the following questions:**
https://twinsuk.ac.uk/study-of-2600-twinsuk-twins-finds-covid-19-symptoms-partly-due-to-genes/

1. What were their findings? What do these results suggest?
2. What do identical and non-identical twins allow researchers to understand?
3. What symptoms were genes responsible for?
4. What symptoms was the environment responsible for?

Section 4: Essay writing task

Using knowledge from this booklet and any of your own research, explain how the approaches of social, cognitive and biological psychology help us to understand human behaviour.

Requirements for your essay:

- Written in continuous prose (full sentences)
- Includes 3 paragraphs (one paragraph on each psychology approach)
- One side of A4 paper

Section 5: Maths skills

In Psychology, 10% of the marks available are maths skills – in terms of overall marks, this works out at about one grade. To get prepared, answer the following questions...

Using percentages, fractions and decimals

Convert to a percentage:

1. 3 out of 5 students own a television.
2. The score on a test is 27 out of 40.
3. In a class, 22 students ate breakfast and 17 did not. Work out the percentage for each group.
4. Sam spent 20 minutes of a 90 minute exam writing an essay.

Convert to a fraction, reduced to simplest form:

5. 0.2
6. 0.62
7. 90%
8. 67%

Convert to a decimal:

9. 12
10. 340
11. 65%
12. 51.6%

Ratios

Put each ratio into its simplest form:

13. 4:3
14. 5:10
15. 15:5
16. 5:50

Measures of central tendency: Mean, median and mode

17. Find the **mean** of the given data below, rounding your answer to the nearest whole number:

11 12 28 17 21 24 27

18. Find the **median** of the data given below:

15 20 10 15 14 23 14

19. Find the **mode** of the data given below:

1 4 6 2 10 11 12 8 10

Past exam questions:

20. Helen conducted an unstructured interview with residents in her local area about the behaviour of crowds in the park. Her sample group included 125 males and 175 females, all aged 24 years and over.

a) Calculate the **fraction** of Helen's sample who were female. Express your answer in its lowest form. **[1 mark]**

b) Calculate the **percentage** of Helen's sample who were male. Give your answer to the nearest whole number. **[1 mark]**

21. The results for an experiment are shown in **Table 1** below.

Participant	Condition A	Condition B
1	47	83
2	67	76
3	34	82
4	87	85
5	76	80
6	44	75
7	56	80
8	99	85
9	34	76
10	88	80

Table 1

Calculate the **mean** score for **Condition A**. Give your answer to one decimal place. **[1 mark]**

22. Some nurses were able to recall a higher number of words from the list of 20 than other nurses.

Calculate the correct **percentages** for participant A and participant B in **Table 3.** **[2 marks]**

Participant	Number of words recalled from a list of 20	Percentage of words recalled from a list of 20
A	17	
B	6	

Table 3

23. Manon decides to carry out a piece of research to test whether boys are quicker at completing computer games than girls. She carries out a laboratory experiment asking her sample of 9 females and 16 males to complete a car racing computer game. The scores for both groups are recorded in **Table 1** below.

Time taken (in minutes) to complete a car racing computer game	
Condition A Females	**Condition B Males**
18	18
19	17
19	17
22	18
25	21
30	16
23	13
20	14
22	16
–	18
–	14
–	16
–	17
–	18
–	14
–	14

Table 1

The mean score for the time taken by females in Condition A to complete a car racing computer game is 22 minutes.

Calculate the **mean** score for males in **Condition B** using the data in **Table 1**. You must give your answer to two decimal places**.** **[1 mark]**

24. Table 1 is a tally chart showing conformity in silent and noisy conditions.

	Condition one	Condition two
Conforming behaviour	𝍸 𝍸 ||	𝍸 𝍸 𝍸 |
Non-conforming behaviour	||	||||

Table 1

Calculate the **percentage** of non-conforming behaviour in condition two of Chloe's investigation. **[1 mark]**

25. Shamilla wanted to investigate the speed of cars being driven both with and without passengers. Using a hand held speed recorder, she measured the speed of cars and noted their occupancy.

Table 3 shows the results Shamilla recorded.

Speed of cars being driven without passengers Km/h	Speed of cars being driven with passengers Km/h
56	58
60	50
66	53
53	58
55	53
61	42
47	52
71	44
60	61
55	40

Table 3

Calculate the **median** speed for cars without passengers **and** the median speed for cars with passengers. **[2 marks]**

26. **Table 1** shows the percentage of reduction in symptoms from Leonard's experiment.

	% of reduction in symptoms
New drug	25%
Placebo	10%

Table 1

Calculate Leonard's results as a **ratio**. You must express the ratio to the lowest whole numbers. **[1 mark]**