

EFFECTIVE INDEPENDENT WORK

Planning:

- Amend your timetable to assign work to each PVS. Note which teachers will be free for each PVS
- Identify which topic you will work on in each PVS at the start of the week or the night before each day
- Pack whatever resources/materials you will need for these. If you need a computer and cannot get to one, make sure you have something you can be doing instead.

In the PVS:

- Do not sit with friends unless you will be working with them directly
- Do not listen to Music – it is a proven distraction from retention of information

When working:

- Skim read chapter/section to get a feel for the topic
- Read in detail making brief notes where needed
- Use resource (online, given or otherwise) to clarify any areas of misunderstanding or extend knowledge
- Make REVISION standard notes on necessary information
- Learn/Discuss/Check with teacher as appropriate
- Practice exam questions once the topic is complete and check with mark scheme/teacher

End of the Day:

- Note what you have achieved before you go to bed each day. Keep this as an ongoing document/record

Problems:

If you do not understand – persevere but do not waste too much time. If you need to ask the teacher make sure you go with **specific questions.**

How to check if you know it:

- Explain it to someone else (teacher, peer, younger student who may 'get it'). They will probably ask questions that cause you to question your own understanding or make you realise you cannot remember certain key points
- Look, Cover, Write, Check – basic but effective for rote memory tasks
- Can you list/explain/mindmap/essay plan without any notes in front of you – how much detail can you go into?

Top Tips from Year 13 Students

1. Review and make your own notes:

- CLASSWORK IS NOT ENOUGH
- Use textbooks/online resources/handouts to flesh out knowledge and include things which may have been missed in lessons
- Use your own words. Making your own notes means you are more likely to remember them
- Make mindmaps/flashcards as a summary of your notes and review often

2. Plan your PVS and Free Time

- Sunday night or PVS on Monday morning to plan which topics you will look at
- Means you will have the right books to do the works and get started quickly
- Sit by yourself
- No music

3. Work hard for short bursts

- Work 100% for 20 minutes, then a 5minute break, then another 15/20 minutes
- Means you are concentrating more effectively and retaining more information
- Review all of your work in 2 minutes at the end of each PVS
- Plan what you will do in each short burst

4. Read ahead and around your subject

- Improves confidence and understanding before entering class
- Class will act as a refresher
- You will enjoy it more when you understand what's going on and pick up on smaller details
- All leads to better marks

5. Act on Feedback

- No point in doing work if you do not listen to feedback
- Feedback is tutoring as it is tailored to you – LISTEN!
- Redo work or find similar questions to improve areas of weakness
- If still struggling book a lesson with your teacher to help

Subject	Wider Resource
Psychology	Dynamic learning, holah website, Jonathan Evans on Youtube, Quizlet for the answers to paper 1.
English	School Portal
History	Jstor
Politics	Newspapers, Current Media
Media Studies	School Portal
Geography	Geography Review magazine
Business Studies	School Portal
Economics	EasyEcon website
Physics	HyperPhysics website, MIT Openware Lectures, Dr Quantum (youtube)
Chemistry	Chemguide Website
Biology	McGraw Hill animations, Teded lectures, Crash Course Biology (youtube)
Computer Science	https://elevator.cambridge.org for notes and https://pythonschool.net/ for coursework tutorial
Maths	MyMaths
Drama	National Theatre website and their videos on YouTube. Theatre company websites - DV8, Frantic assembly, kneehigh.
Music	www.imslp.org
MFL	http://lequotidien.lefigaro.fr/ and www.lemonde.fr for Newspapers
	http://www.premiere.fr/
	http://www.gouvernement.fr/
Classics	Jstor

	A Monday	A Tuesday	A Wednesday	A Thursday	A Friday
1. Period 01 08:40 - 09:30		Yr 13 Biology Blk D SC1 PJR		Yr 13 Geography Blk C GE3 RPC	Yr 13 Chemistry Blk A CL1 ATS
2. Period 02 09:30 - 10:20	Yr 13 Biology Blk D SC1 PJR	Yr 13 Biology Blk D BL1 RS	Yr 13 Biology Blk D SC1 PJR		Yr 13 Biology Blk D BL3 RS
3. Period 03 10:20 - 11:05	Yr 13 Geography Blk C GE2 RPC		Yr 13 Geography Blk C GE2 RW	Yr 13 Biology Blk D BL3 RS	
5. Period 04 11:30 - 12:20		Yr 13 Geography Blk C GE2 RW	Yr 13 Chemistry Blk A CL2 DSW	Yr 13 Games Set 13 S GAM ATS	Yr 13 Chemistry Blk A CL2 DSW
6. Period 05 12:20 - 13:05		Yr 13 Geography Blk C GE3 RPC	Yr 13 Chemistry Blk A CL2 DSW		
9. Period 06 14:15 - 15:05	Yr 13 Geography Blk C GE2 RW	Tuesday Games COOKES		Yr 13 Chemistry Blk A CL2 DSW	Yr 13 Geography Blk C GE2 RW
10. Period 07 15:05 - 15:55					
11. Period 08 15:55 - 16:45	Yr 13 Biology Blk D BL3 RS		Yr 13 Geography Blk C GE1 RPC	Running Club	
12. Period 09 16:45 - 17:30					

	B Monday	B Tuesday	B Wednesday	B Thursday	B Friday
1. Period 01 08:40 - 09:30	Yr 13 Chemistry Blk A CL1 ATS	Yr 13 Chemistry Blk A CL2 DSW			Yr 13 Geography Blk C GE2 RW
2. Period 02 09:30 - 10:20	Yr 13 Chemistry Blk A CL1 ATS	Yr 13 Chemistry Blk A CL1 ATS	Yr 13 Chemistry Blk A CL1 ATS		Yr 13 Biology Blk D SC1 PJR
3. Period 03 10:20 - 11:05	Yr 13 Biology Blk D SC1 PJR	Yr 13 Geography Blk C GE2 RPC	Yr 13 Chemistry Blk A CL2 DSW	Yr 13 Biology Blk D BL3 RS	Yr 13 Biology Blk D SC1 PJR
5. Period 04 11:30 - 12:20	Yr 13 Geography Blk C GE3 RPC	Yr 13 Geography Blk C GE2 RW	Yr 13 Geography Blk C GE3 RPC	Yr 13 Games Set 13 S GAM ATS	
6. Period 05 12:20 - 13:05		Yr 13 Biology Blk D SC1 PJR			Yr 13 Chemistry Blk A CL1 ATS
9. Period 06 14:15 - 15:05	Yr 13 Geography Blk C GE2 RW	Tuesday Games COOKES	Yr 13 Biology Blk D BL3 RS	Yr 13 Chemistry Blk A CL1 ATS	
10. Period 07 15:05 - 15:55			Yr 13 Biology Blk D BL3 RS	Yr 13 Chemistry Blk A CL2 DSW	
11. Period 08 15:55 - 16:45				Running Club	
12. Period 09 16:45 - 17:30					

	A Monday	A Tuesday	A Wednesday	A Thursday	A Friday
1. Period 01 08:40 - 09:30	Plan PVS for week	Yr 13 Biology Blk D SC1 PJR	Chemistry	Yr 13 Geography Blk C GE3 RPC	Yr 13 Chemistry Blk A CL1 ATS
2. Period 02 09:30 - 10:20	Yr 13 Biology Blk D SC1 PJR	Yr 13 Biology Blk D BL1 RS	Yr 13 Biology Blk D SC1 PJR	Chemistry	Yr 13 Biology Blk D BL3 RS
3. Period 03 10:20 - 11:05	Yr 13 Geography Blk C GE2 RPC	Biology/Geography	Yr 13 Geography Blk C GE2 RW	Yr 13 Biology Blk D BL3 RS	Geography
5. Period 04 11:30 - 12:20	Biology	Yr 13 Geography Blk C GE2 RW	Yr 13 Chemistry Blk A CL2 DSW	Yr 13 Games Set 13 S GAM ATS	Yr 13 Chemistry Blk A CL2 DSW
6. Period 05 12:20 - 13:05	Geography	Yr 13 Geography Blk C GE3 RPC	Yr 13 Chemistry Blk A CL2 DSW		Chemistry
9. Period 06 14:15 - 15:05	Yr 13 Geography Blk C GE2 RW		Chemistry	Yr 13 Chemistry Blk A CL2 DSW	Yr 13 Geography Blk C GE2 RW
10. Period 07 15:05 - 15:55	Free Time	Tuesday Games COOKES	Biology	Biology	Free Time
11. Period 08 15:55 - 16:45	Yr 13 Biology Blk D BL3 RS		Yr 13 Geography Blk C GE1 RPC	Running Club	
12. Period 09 16:45 - 17:30					

	B Monday	B Tuesday	B Wednesday	B Thursday	B Friday
1. Period 01 08:40 - 09:30	Yr 13 Chemistry Blk A CL1 ATS	Yr 13 Chemistry Blk A CL2 DSW	Chemistry	Biology	Yr 13 Geography Blk C GE2 RW
2. Period 02 09:30 - 10:20	Yr 13 Chemistry Blk A CL1 ATS	Yr 13 Chemistry Blk A CL1 ATS	Yr 13 Chemistry Blk A CL1 ATS	Geography	Yr 13 Biology Blk D SC1 PJR
3. Period 03 10:20 - 11:05	Yr 13 Biology Blk D SC1 PJR	Yr 13 Geography Blk C GE2 RPC	Yr 13 Chemistry Blk A CL2 DSW	Yr 13 Biology Blk D BL3 RS	Yr 13 Biology Blk D SC1 PJR
5. Period 04 11:30 - 12:20	Yr 13 Geography Blk C GE3 RPC	Yr 13 Geography Blk C GE2 RW	Yr 13 Geography Blk C GE3 RPC	Yr 13 Games Set 13 S GAM ATS	Chemistry
6. Period 05 12:20 - 13:05	Chemistry	Yr 13 Biology Blk D SC1 PJR	Biology		Yr 13 Chemistry Blk A CL1 ATS
9. Period 06 14:15 - 15:05	Yr 13 Geography Blk C GE2 RW		Yr 13 Biology Blk D BL3 RS	Yr 13 Chemistry Blk A CL1 ATS	Biology
10. Period 07 15:05 - 15:55	Geography	Tuesday Games COOKES	Yr 13 Biology Blk D BL3 RS	Yr 13 Chemistry Blk A CL2 DSW	Free Time
11. Period 08 15:55 - 16:45	Free Time			Running Club	
12. Period 09 16:45 - 17:30					

	A Monday	A Tuesday	A Wednesday	A Thursday	A Friday
1. Period 01 08:40 - 09:30	Plan PVS for week	Yr 13 Biology Blk D SC1 PJR	Chem - Wi, Wa, Sh	Yr 13 Geography Blk C GE3 RPC	Yr 13 Chemistry Blk A CL1 ATS
2. Period 02 09:30 - 10:20	Yr 13 Biology Blk D SC1 PJR	Yr 13 Biology Blk D BL1 RS	Yr 13 Biology Blk D SC1 PJR	Chem	Yr 13 Biology Blk D BL3 RS
3. Period 03 10:20 - 11:05	Yr 13 Geography Blk C GE2 RPC	Biology - Shi,Wi	Yr 13 Geography Blk C GE2 RW	Yr 13 Biology Blk D BL3 RS	Geography - Co
5. Period 04 11:30 - 12:20	Biology - Wi,Co	Yr 13 Geography Blk C GE2 RW	Yr 13 Chemistry Blk A CL2 DSW	Yr 13 Games Set 13 S GAM ATS	Yr 13 Chemistry Blk A CL2 DSW
6. Period 05 12:20 - 13:05	Geography - Sh, Wi	Yr 13 Geography Blk C GE3 RPC	Yr 13 Chemistry Blk A CL2 DSW		Chem - Co
9. Period 06 14:15 - 15:05	Yr 13 Geography Blk C GE2 RW	Tuesday Games COOKES	Chem- Shi,Wa,Sh	Yr 13 Chemistry Blk A CL2 DSW	Yr 13 Geography Blk C GE2 RW
10. Period 07 15:05 - 15:55	Free Time		Biology - Co,Wa	Biology - Shi,Sh,Wa	Free Time
11. Period 08 15:55 - 16:45	Yr 13 Biology Blk D BL3 RS		Yr 13 Geography Blk C GE1 RPC	Running Club	
12. Period 09 16:45 - 17:30					

	B Monday	B Tuesday	B Wednesday	B Thursday	B Friday
1. Period 01 08:40 - 09:30	Yr 13 Chemistry Blk A CL1 ATS	Yr 13 Chemistry Blk A CL2 DSW	Chem - Sh,Shi,Wi,Wa	Biology - Shi,Co,Wa,Co	Yr 13 Geography Blk C GE2 RW
2. Period 02 09:30 - 10:20	Yr 13 Chemistry Blk A CL1 ATS	Yr 13 Chemistry Blk A CL1 ATS	Yr 13 Chemistry Blk A CL1 ATS	Geography - Wi,Sh	Yr 13 Biology Blk D SC1 PJR
3. Period 03 10:20 - 11:05	Yr 13 Biology Blk D SC1 PJR	Yr 13 Geography Blk C GE2 RPC	Yr 13 Chemistry Blk A CL2 DSW	Yr 13 Biology Blk D BL3 RS	Yr 13 Biology Blk D SC1 PJR
5. Period 04 11:30 - 12:20	Yr 13 Geography Blk C GE3 RPC	Yr 13 Geography Blk C GE2 RW	Yr 13 Geography Blk C GE3 RPC	Yr 13 Games Set 13 S GAM ATS	Chem - Sh,Wa
6. Period 05 12:20 - 13:05	Chem - Shi,Sh,Wi	Yr 13 Biology Blk D SC1 PJR	Biology - Wa,Co		Yr 13 Chemistry Blk A CL1 ATS
9. Period 06 14:15 - 15:05	Yr 13 Geography Blk C GE2 RW	Tuesday Games COOKES	Yr 13 Biology Blk D BL3 RS	Yr 13 Chemistry Blk A CL1 ATS	Biology - Wi,Wa
10. Period 07 15:05 - 15:55	Geography - Wi,Sh		Yr 13 Biology Blk D BL3 RS	Yr 13 Chemistry Blk A CL2 DSW	Free Time
11. Period 08 15:55 - 16:45	Free Time			Running Club	
12. Period 09 16:45 - 17:30					

Bocchiaro Et al 2011.

- Current aims:

- 1) Authority requesting immoral acts, but gave the participants to obey, disobey or whistleblow.
- 2) They want to investigate individual personality and situational factors are measured. (was it there values)
- 3) To show the difference in peoples predictions of their own and others degree of disobedience compared to actual disobedience.

Laboratory study or a scenario study.

Took place at the VU University in Amsterdam

Two specially separated rooms and the times for both participants were kept the same.

Data was gathered on the number of participants who obeyed, those who disobeyed and those who chose to whistle blow. (this is what they are measuring)

Whistle blowing: Reporting the experimenters questionable conduct to the research committee.

They also measured personality using the HEXACO-PI-R measuring the 6 dimensions of personality and a 9 item decomposed GAMES measure - this measured Social Value Orientation - (SVO)

Participants were informed. were warned about potential benefits and risks of participation. Could withdraw at any time. Confidentiality would be kept. experimenter had a stern demeanor.

Asked for each participant to provide a few names of other students. (most people did)

The Cover Story

Will probably give people virtually auditory; temporary hallucinations, will be worse for young people, did not allow people to withdraw. Highly unethical study and they want to do it again with younger people with a larger sample.

Room 1

Told that research committee forms were in the next room. Were to write a statement convincing their friends to participate.

8 pilot tests - 92 graduates - conducted to make sure it was ethical and morally acceptable. There to standardise the experimenter's authority behaviour through out.

Bocchiaro Core Study

Summary of Room 1:

- ① Meet Experimenter
- ② Consent Statement
- ③ Give Names of friends

Left the room for 3 min to allow participants to reflect.

⑤ left to think.

② Pilot study:

- 138 comparison students from VU uni.
- Asked students to Predict what they would do, and what would the average student do.

Actual study:

- 149 undergraduate students (96 w, 53 m)
- took part for either £7 or course credit
- self-selecting sample flyers were put in the café.

Results:

Comparison group only (3.6%) said they would obey others thought disobedient (31.9%)
whistle blowers (64.5%)

when asked to predict for other people:

18.8% thought students at the VU uni would obey
43.9% would disobey
37.3% would blow the whistle.

Actual Study

76.5% obeyed the experimental (114)
14.1% disobeyed (21p)
9.4% blew the whistle (14p)

Whistle blower:

6.0% (9p) had anonymously whistle blown and wrote the statement.
3.4% (5p) had refused to write the statement and whistle blown.

Room 2 - The Decision

- A computer for them to write their statement, a mailbox and research committee forms.
- Told to be enthusiastic and use words out of 'exciting', 'incredible', 'great', 'superb'.
- Negative effects of sensory deprivation was NOT to be mentioned.
- 7 min to write their statement
- If participants thought that the study was unethical they could write on the research committee form anonymously and put it in the mailbox.
- fully debriefed and were asked to sign a second consent form this time fully informed.
- Whole thing was about 40 min

Bocchiaro Core Study Part 2

Summary of Room 2

① Write statement to friends.

OR

② Do not write statement

OR

③ Whistle blow

Monday 17th October 2016

HOMEOSTASIS

HOMEOSTASIS: Maintenance of a more or less constant internal environment.

FACTORS CONTROLLED BY HOMEOSTASIS:

- * Temperature
- * Blood sugar
- * Water content / osmotic potential
- * Salt levels
- * pH
- * $\text{CO}_2 \rightarrow$ acidic gas.

Homeostasis is important because we need to control the internal conditions in our body otherwise we can get ill and potentially die.

16 Homeostasis

16.1 Principles of Homeostasis

Homeostasis: Maintenance of a constant internal environment.

Homeostasis ensures that the cells of the body are in an environment that meets their requirements and allows them to function normally despite surrounding changes.

Importance of homeostasis

The enzymes that control the biochemical reactions within cells are sensitive to changes in pH and temperature. Any change will reduce the rate of reaction or denature them.

Changes to water potential of the blood and tissue fluid may cause cells to shrink, expand and possibly burst. Maintenance of a constant blood glucose concentration is essential in ensuring a constant water potential.

Control mechanisms

The **optimum point** is the point at which the system operates best. This is monitored by a **receptor** which detects any deviations from the optimum point. It then goes on to inform the **coordinator** which coordinates information from the receptors. It sends instructions to the **feedback** mechanism by which a receptor responds to a stimulus created by the change to the system brought about by the effector.

Coordination of control mechanisms

Most systems use **negative feedback**. This is when change produced by the control system leads to a change in the stimulus detected by the receptor and turns the system off.

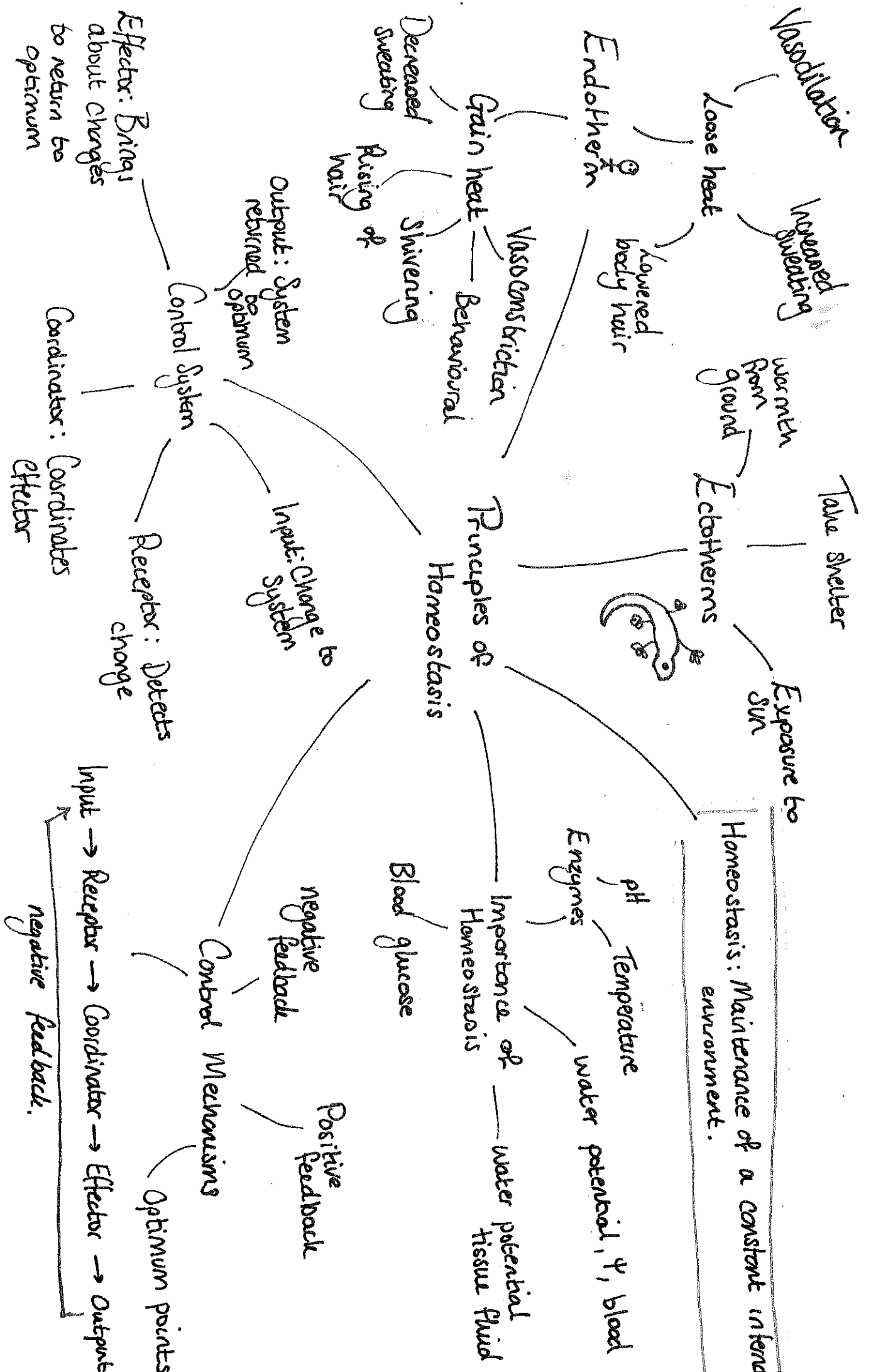
Positive feedback occurs when a deviation from an optimum causes change that results in an even greater deviation from the normal. *[An example of this occurs in neurones where a stimulus leads to a small influx of sodium ions. This influx increases the permeability of the neurone membrane to sodium ions, more ions enter, causing a further increase in permeability]*

Regulation of body temperature in ectotherms

Ectotherm: Gain heat from their surrounding environment, so their body temperature fluctuates with that of their surroundings.

They control temperature by:

- Exposing themselves to the Sun.
- Take shelter.
- Gaining warmth from the ground.



Constitution of the United States

Pre Constitutional America 08.09.16:

A brief history:

- 1588 First Settlement in Roanoke, Virginia
- 1607 Permanent Settlement; Jamestown, Virginia
 - 13 colonies eventually established on eastern seaboard, not just english who traveled there.
 - British Government taxed colonies to raises funds for French / Indian War and offered no say in how that money should be spent.
- 1773 Boston Tea Party, first act showing colonials discontent
- 1774 Coercive Act passed, made the whole situation worse by giving more power to the state
- 1774 (5th Sept) First Continental Congress
- 1775 (10th May) Second Continental Congress
- 1776 (4th July) Congress declares independence
- 1781 (17th Oct) British forces finally defeated at Yorktown, Virginia
- 1781 Articles of Confederation
- 1783 (15th April) Treaty of Paris signed

US Government Overview 12.09.16:

Government overview:

Legislature:

Congress is Bilateral; 100 in the Senate, 435 in House of representatives

Executive:

President; VP, EXOP, Cabinet, Agencies

Judiciary:

Supreme court;

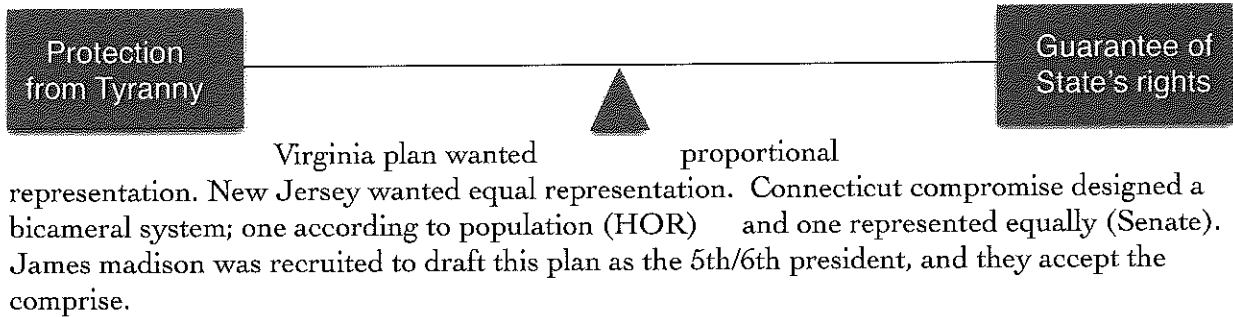
Constitution:

A system of rules which describes the structure and powers of Government.

Outlines the relation between the three branches of Government.

And the relationship between the Government and it's citizens.

- 1776 Declaration of Independence
- 1781 Articles of Confederation; The first attempt to make a codified constitution, at the height of the revolutionary war. They created a confederacy which is a loose system of Government the tie was not close enough to bring people together. The majority of the power was with individual states and they only made one branch of power. The three issues were that there was no executive branch, no judiciary and the legislature was a talking shop. They were in a battle of creating a strong system of Government and one that didn't over rule state's power.
- 1787 (May) Philadelphia Convention. 12 delegates from 12 of the 13 states in may 1878 took 4 months to create a strong Government whilst protection freedoms. Rhode island didn't turn up.



Constitution 14.09.16

The Articles:

1. Legislature
2. Executive branch
3. Judicial branch. The latter two were effectively missed out in the confederate constitution.
4. Federal
5. Amendment process
6. Misc. Pros
7. Ratification procedure

10 Amendments (Known as the BOR):

It was agreed that 10 amendments will be made as part of the signing of the document, these 10 amendments protected the rights of the people and act as a compromise between two divided groups.

One will notice no individuals were mentioned, only bodies of Governments. It mentions only the rights and responsibilities of Government, it does not mention the rights and responsibilities of the public in its unamended form. As it stood it could not be ratified as it did not protect the people.

Ratification:

Needed 9 states to ratify. 9 was the compromise instead of having all 13, this would allow for rapid ratification binding all 13 states. Within the states there was a big split between two groups; anti-Federalists and Federalists. These 10 amendments solved this issue of two groups and are known as the BOR.

These two groups had to compromise for the BOR;

Anti-Federalists:

They believed there was insufficient check and balances to protect them from tyranny. There was not enough to prevent an over-powerful executive; it would be removing a foreign power for a national one. Insufficient separation of powers and too much power in the president's hands. Back then a president could not hear, nor see the state of every state. They were pragmatic stating no one person should be in charge of such great land. They believed a strong national Government would erode state's rights.

Federalists:

They stated that a greater threat came from abroad; France, Britain and Spain. They wanted a strong security constitution rather than freedom.

1791 the Bill of Rights was created, under George Washington's presidency.

10 Amendments:

1. Freedom of speech
2. Right to keep and bear Arms
3. No quartering of Soldiers
4. No unreasonable search and seizure
5. Due process
6. Speedy and public trial
7. Trial by jury in civil cases
8. No cruel and unusual punishment
9. Other rights of people
10. Power not delegated to Fed. Gov are reserved to the states or people.

Amendments 19.09.16:

Steps to amending the Constitution:

1. Proposed Amendment.
2. 2/3rds Majority required in the House and 2/3rds in the Senate needed.
3. 38 State legislatures needed to vote for it.
4. Constitution amended.

Notable amendments:

13. Slavery Abolished (1865)
14. Equal Protection and due process clause (1868)
15. Blacks given the right to vote (1870)
16. Income tax (1913)
22. Two term presidential limit (1951)
25. Presidential succession procedure (1967)

What are the dangers writing a constitution that is very difficult to amend?

- Slow amendments (Rapid legislation is seldom good legislation. Dangerous dog act)
- Out of touch with the time
- Hard to remove amendments which turnout to be anti-democratic, trial and error not applicable
- Not flexible, an amendment took over 100 years
- 2 party system means hard to get a majority
- Designed for the past ideologically
- Interpretation becomes all the more important, from the supreme court judges. (Brown Case and Plessy vs Ferguson)

Other Forms of amendment:

2/3rds of the states can call for a constitutional convention, however, this has never happened.

Notable failed attempts to amend:

2005 **Flag Desecration** - was defeated by 1 vote in the Senate.

1995 **Balanced Budget** - attempt to balance the book yet failed in the Senate.

1972 **Equal Rights for Women** - passed both the House and Senate yet was 3 states short in the state legislature section.