Ms Corbo and Ms Green’s advice for power learning – based on the principles of psychology
Attention is the first step required in creating a new memory.
Attention refers to concentrating on some stimuli in your environment while tuning others out.
Attention is like a highlighter that allows you to focus on vital information from your environment and ignore the rest.
If you do not focus your attention on something, you cannot expect it to reach your long-term memory.

In fact, it will not even enter your short-term memory.
To learn in class, you must therefore be attentive.
Examples of inattention
What causes you to become inattentive in class?
The rest of this presentation will provide advice on how to combat these two causes of inattention.
In order to overcome these two problems, you must:

- recognise the importance of attention and therefore...
- become an active, systematic learner
Attention → Short-Term Memory
Listen, focus, rehearse, write down, ask and answer questions.

Add Meaning → Long-Term Memory
Be systematic, active and creative in your note-taking. Use categories, symbols, examples, analogies, pictures and quizzes.
Long-Term Memory is founded on MEANING
Attention
Focus attention by reworking and reconstructing what you read and hear..
In the process, you will also add meaning to the new information.
Methods for reworking and reconstructing what you read and hear...
Question it.
Create questions that you can answer from what you have read.
Example: You read:
The goals of psychology are to describe, explain, predict and control behaviour.
You ask:

• When might explaining human behaviour be useful?

• Why is predicting behaviour important?

• What kind of behaviour might a person wish to control?
Psychology

Goals
- describe
- explain
- predict
- control

Study of
- behaviour
- mental states (feelings and thoughts)

Methods
- case study
- experiment
- survey/questionnaire
- naturalistic observation
- correlational study

Put ideas into categories.
3 Use different words to reformulate an idea.

- **behaviour** = *observable action*
- **feeling** = *emotion, affect*
- **thought** = *cognition, belief*
Highlight the buzz words or key terms.

- behaviour = observable action
- feeling = emotion, affect
- thought = cognition, belief
- mental states
Think of examples, analogies and symbols.

- behaviour
- feeling
- thought
- kicking, playing, laughing
- anxiety, apprehension
- idea, opinion
Each time you think of an example, analogy, symbol, category or synonym, you are focusing on and then reconstructing new knowledge.
This process is called ELABORATION. It ensures that your new knowledge is well encoded in your memory and more easily retrieved.
Make yourself a CHECK QUIZ

behaviour | thought | feeling
control | predict | describing

a A person with OCD might wish to ________
   distressing behaviour.

b Intense fear of contamination: e.g. of ________

c Constant hand-washing: e.g. of _________

d Person’s belief that certain rituals will help
   protect self or family: e.g. of _________

e A person determining whether criminals should
   be paroled might wish to ________ behaviour.

f Note in patient record: Person undertakes
   frequent compulsive hand-washing: e.g. of ________
   behaviour
ANSWERS

a A person with OCD might wish to control distressing behaviour.

b Intense fear of contamination: e.g. of feeling

c Constant hand-washing: e.g. of behaviour

d Person’s belief that certain rituals will help protect self or family: e.g. of thought

e A person determining whether criminals should be paroled might wish to predict behaviour.

f Note in patient record: Person undertakes frequent compulsive hand-washing: e.g. of describing behaviour
Overcoming passivity
with a SYSTEM...
Use note-taking techniques that...

1. add meaning to what you have heard or read

For instance, think of examples to help you understand or visualise a new concept.
Use note-taking techniques that... 2 help you to understand and remember the material better. For instance, use symbols, diagrams, pictures, tables and mnemonics, not just words.
EXAMPLE: Psychology is the systematic study of...

Behaviours
- compulsive hand-washing

Feelings
- anxiety about contamination

Thoughts
- belief that washing will protect one from contamination
Use note-taking techniques that...

3 allow you to notice and focus on the links between ideas and concepts

For instance, use a concept map with links, arrows and branches.
Psychology is the study of behaviours, thoughts, feelings, and other words for which are affects or emotions, which can be defined as observable actions which can also be called cognitions, ideas or beliefs.

Psychology involves research through experiments that allow cause and effect relationships to be established, surveys, questionnaires and rating scales, naturalistic observation, and correlational studies that allow the link between two variables to be determined.

Psychology requires ethical standards that ensure the integrity of researchers, the welfare of research participants, confidentiality, informed consent, and withdrawal rights. Through justice for all participants and through accurate reporting, who must recognise that participant welfare is a central priority in all research.
Use note-taking techniques that...

4 force you to focus on the key terms or “buzz words”

For instance, keep a running list of these words on the right of your page.
Brain Development in Infancy and Adolescence

1 Timeline of brain development
- Birth: about ¼ of adult size; almost all neurons already present
- 6 months: about ½ of adult size
- 2 years: about ¾ of adult size
- 6 years: 90-95% of adult size
- Mid-20s: full adult size but some parts still maturing
The genetically programmed development of the brain, which occurs in a predetermined sequence in all humans, is an example of maturation.

2 Myelination
- Myelin is the white insulating sheath that forms around many nerve fibres, allowing increasing speed of neural communication.
- The most intense myelination period is directly after birth. Adolescence is also important.
- Sensory and motor areas in the brain are myelinated first. Generally, the parts of the brain that are responsible for more complex cognitive functions are myelinated afterwards.

Key Terms
- neuron
- maturation
- myelin
- synapse
- synaptogenesis
- branching of dendrites
- synaptic pruning
- frontal lobes
- prefrontal cortex

Check Quiz
- Formation of new synapses:
- Tiny gap between neurons; site of
Use note-taking techniques that...

5. require your brain to pose questions and find answers.

For instance, write yourself a "check quiz" during most classes. Place it on the side or at the bottom of each page and use it for quick, structured revision.
Brain Development in Infancy and Adolescence

1. Timeline of brain development
   - Birth: about 1/4 of adult size; almost all neurons already present
   - 6 months: about 1/2 of adult size
   - 2 years: about 3/4 of adult size
   - 6 years: 90-95% of adult size
   - Mid-20s: full adult size but some parts still maturing
   The genetically programmed development of the brain, which occurs in a predetermined sequence in all humans, is an example of maturation.

2. Myelination
   - Myelin is the white insulating sheath that forms around many nerve fibres, allowing increasing speed of neural communication.
   - The most intense myelination period is directly after birth. Adolescence is also important.
   - Sensory and motor areas in the brain are myelinated first. Generally, the parts of the brain that are responsible for more complex cognitive functions are myelinated afterwards.

3. Synaptogenesis and synaptic pruning
   - The synapse is the point of communication between neurons.
   - Messages are passed from axon terminals to dendrites.
   - Synaptogenesis refers to the formation of new synapses between the brain’s neurons, a process which occurs as the more dendrites and more branches of dendrites grow after birth.

Key Terms
- neuron
- maturation
- myelin
- synapse
- synaptogenesis
- branching of dendrites
- synaptic pruning
- frontal lobes
- prefrontal cortex

Check Quiz
- Formation of new synapses:
- Tiny gap between neurons; site of communication between them:
- nerve cell that transmits neural impulses:
- fatty substance coating the nerve fibre and facilitating...
Check Quiz - Example

A woman with a rare genetic illness provides details of its effects upon her.

Year 11 psychology students are deprived of sleep for one night and their performance in a test is compared with that of students who were not deprived.

The link between maximum daily temperature and car accidents is analysed.

The flirting behaviour of young singles in a nightclub is investigated.

Students fill in a questionnaire by the Department of Education to provide information about their attitudes to school.
Check Quiz – Which research method?

a A woman with a rare genetic illness provides details of its effects upon her. - case study

b Year 11 psychology students are deprived of sleep for one night and their performance in a test is compared with that of students who were not deprived. - experiment

c The link between maximum daily temperature and car accidents is analysed. - correlational study

d The flirting behaviour of young singles in a nightclub is investigated. - naturalistic observation

e Students fill in a questionnaire by the Department of Education to provide information about their attitudes to school. - survey
Use note-taking techniques that...

6 lead to a legible and well-organised workbook, so that revision is a straightforward and even inviting task.

For instance, use headings, subheadings and dot points; set out your notes clearly with colour coding.
Brain Development in Infancy and Adolescence

1 Timeline of brain development
   - **Birth**: about ¼ of adult size; almost all neurons already present
   - **6 months**: about ½ of adult size
   - **2 years**: about ¾ of adult size
   - **6 years**: 90-95% of adult size
   - **Mid-20s**: full adult size but some parts still maturing
   The genetically programmed development of the brain, which occurs in a predetermined sequence in all humans, is an example of maturation.

2 Myelination
   - **Myelin** is the white insulating sheath that forms around many nerve fibres, allowing increasing speed of neural communication.
   - The most intense myelination period is directly after birth.
   - Adolescence is also important.
   - Sensory and motor areas in the brain are myelinated first. Generally, the parts of the brain that are responsible for more complex cognitive functions are myelinated afterwards.

3 Synaptogenesis and synaptic pruning
   - **The synapse** is the point of communication between neurons.
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Key Terms
- neuron
- maturation
- myelin
- synapse
- synaptogenesis
- branching of dendrites
- synaptic pruning
- frontal lobes
- prefrontal cortex

Check Quiz
- Formation of new synapses:
- Tiny gap between neurons; site of communication between them:
- nerve cell that transmits neural impulses:
- fatty substance coating the nerve fibre and facilitating
Write legibly.

Choose clear, well defined headings and sub-headings.

Be prepared to use a concept map when appropriate.

Brain Development in Infancy and Adolescence

1 Timeline of brain development
- Birth: about ¼ of adult size, almost all neurons already present
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- Myelin is the white insulating sheath that forms around many nerve fibres, allowing increasing speed of neural communication.
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- Sensory and motor areas in the brain are myelinated first. Generally, the parts of the brain that are responsible for more

Key Terms
- neuron
- maturation
- myelin
- synapse
- synaptogenesis
- branching of dendrites
- synaptic pruning
- frontal lobes
- prefrontal cortex

Check Quiz
- Formation of new synapses:
- 
- 
- They can be between...
Zahra’s Example
1. Short-term memory requires... a mental states.
2. Long-term memory is founded on... b case study.
3. Feelings and thoughts are... c belief.
4. A synonym for thought is... d meaning.
5. A research method in psychology is... e attention.
Did you pay attention? - Match up Quiz

1 A behaviour is a/n...  
2 Using synonyms, examples and analogies are all methods of...  
3 A synonym for feeling is...  
4 Exploring the link between crime and temperature might require a...  
5 Observing children at play is an example of...  

a affect.  
b naturalistic observation.  
c elaboration.  
d observable action.  
e correlational study.