PSY 1011

Psychology:
- The scientific study of mind, brain and behaviour.

Multiple levels of analysis:
- social level
- behavioural
- mental
- neurological/physicological
- neurochemical
- molecular

e.g. Depression at differing levels of analysis:
- Social: loss of important personal relationships, lack of social support.
- Behavioural: decease in pleasurable activities, withdrawing from others.
- Mental: depressed thoughts, sad feelings.
- Neurological/physiological: differences among people in the size and functioning of brain structures related to mood.
- Neurochemical: differences in levels of the brain's chemical messengers that influence mood.
- Molecular: variations in people's genes that predispose to depression.

Science vs Pseudoscience:

Look for examples of:
- Confirmation bias: tendency to seek out evidence that supports our beliefs & deny evidence that contradicts it.
- Belief perseverance: tendency to stick to our original beliefs even when evidence contradicts them.
- Signs of pseudoscience: set of claims that seem scientific, but are not.
- Logical/Bandwagon fallacies: assuming that a claim is correct because many people believe in it – astrology.
- Scientific scepticism: evaluate all claims with an open mind – depends on persuasive evidence – critical thinking.
- Falsifiability: capable of being disproved, be able to test it.
- Replicability: findings can be duplicated.
- Adhoc immunising hypothesis: a loophole of a theory used to protect a theory from falsification.

Dangers of pseudoscience:
- Opportunity cost: missing out an opportunity for effective treatment.
- Direct harm: e.g. Candace Newman – rebirthing.
- Inability to think critically: global warming, parenting practices, etc.

Why are we drawn towards pseudoscience?
- Finding comfort in our beliefs, make order out of disorder, terror management theory (awareness of our own deaths leaves a sense of fear – so we adopt cultural world views).

Principles of scientific thinking:
- Ruling out rival hypotheses (have important alternative explanations)
- Correlation isn't causation (A does not always cause B)
- Testability (a claim can be disproved)
- Replicability (a finding can be duplicated)