PSY101: Introductory Psychology

Create a Drug Activity

Your job is to create two new drugs. They can be illicit, therapeutic, or cognitively enhancing. The only rule is that the drugs must be appropriate for an educational setting. For example, it is NOT acceptable to make a designer drug that could be used to intentionally hurt people.

Work with your group to answer the questions below. Although I am here to help, try to work through the questions together using only your notes.

The goal of this assignment is for you to apply what you have learned about neurons, neurotransmission, and the brain. Try to clearly demonstrate that in your responses.

A few tips:

- Be creative and thoughtful!
- Include every group member.
- Most drugs don't affect every part of the brain or every single neurotransmitter. Be reasonably selective, though choosing several areas is okay.
- Some drugs affect one type of neurotransmitter in one brain region and a different neurotransmitter in another region. Your drug can also do this, but doesn't have to.
- Neurotransmission includes how the signal travels down the axon, the release of neurotransmitters, binding in the synapse, and reuptake.
- As always, no phones or computers allowed!

Below is a list of possible neurotransmitters and brain areas. You do not need to choose from this list.

TABLE 3.1 Common Neurotransmitters and Their Major Functions

NEUROTRANSMITTER	PSYCHOLOGICAL FUNCTIONS
Acetylcholine	Motor control over muscles
	Learning, memory, sleeping, and dreaming
Epinephrine	Energy
Norepinephrine	Arousal, vigilance, and attention
Serotonin	Emotional states and impulsiveness
	Dreaming
Dopamine	Reward and motivation
	Motor control over voluntary movement
GABA (gamma-aminobutyric acid)	Inhibition of action potentials
	Anxiety reduction
Glutamate	Enhancement of action potentials
	Learning and memory
Endorphins	Pain reduction
	Reward

Brain Areas: frontal lobes, occipital lobes, temporal lobes, parietal lobes, primary somatosensory cortex, primary visual cortex, cerebellum, thalamus, hypothalamus, basal ganglia, hippocampus, amygdala, nucleus accumbens, Broca's area, Wernicke's area

Name of Drug:

Psychological/Behavioral Effects:

Side Effects:

Region(s) of the Brain Impacted:

Neurotransmitter(s) Affected:

Way(s) Neurotransmission is Affected (be as specific as possible!):

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