

1. Many people are familiar with the folded appearance of the cerebral cortex, but are not familiar with what it does. List each lobe, including location and primary function(s).

My answer:

Occipital lobe: processes visual information | back of the brain

Parietal lobe: movement in motor response | top back of brain

Temporal lobe: processing hearing and emotion | side of the brain

Frontal lobe: problem-solving and abstract thinking | front of the brain

Better answer:

2. Describe the process of "seeing" an object. Include (1) what happens within structures of the eye, (2) where the information is processed in the brain, and (3) how both contribute to forming a visual perception.

My answer:

Light reflects off an object onto the lens

Lens focus the image

An upside-down image is projected onto the retina. Retina contains sensory cells (rods and cones) that pick up the light of information (color, motion, form, depth). Retina is at the back of the eye which sends signal to nerves at the front which sends information through the optic nerve

Rods and cones in the retina turn the image into an electrical signal

Electrical signal is sent through the optic nerve to the brain

Occipital lobe decodes the signal so the object is seen (rightside up). Neurons fire specific patterns to interpret the information.

Better answer:

3. Select one of these senses: hearing, taste or smell. For the sense you have selected, describe (1) the type(s) of receptor cell (2) the types of information that are sent to the brain, and (3) a common misconception.

My answer:

Taste

1. taste buds

2. there are little ridges on the tongue (papillae) that have valleys lined with taste buds. Saliva, chemicals, enters the valleys of taste buds

Papillae: bumps of taste buds

Receptors combine to send information through nerve

Vascular supply to feed structure

Epithelial cells on papillae

3. Taste zones, where certain parts of the tongue can only taste something. This is false as tastebuds are scattered throughout the tongue.

Better answer:

4. Learning something new can be a joyful "a-ha" experience, but the process of learning can also be challenging. Describe how you can utilize goal insight, repetition, trial & error, and reduction of interferences to improve your own learning for your courses.

My answer: I love cooking and this is often a process of trial and error (though I would not like to admit that). Here is a simple example. I have a goal to make creamy pasta without milk. All I need are pasta, pasta water, salt, pepper, eggs, and olive oil. First time failed because either the heat was too hot or not enough liquid because the eggs ended up curdling (chunks of egg) when I wanted the texture to be smooth. 2nd time I added too much salt. 3rd time was the charm. Reduction of interference: I don't use my phone when cooking.

Better answer: