

The Behaving Brain

Name _____

Hr _____ DL Site _____

If you are absent you can watch the program here:

<http://www.learner.org/discoveringpsychology/03/e03expand.html>

Answer the following questions as you watch the video:

THE CHEMISTRY OF THE BRAIN

1. *The chemical messengers released from neurons, that cross the synapse and interact with receptors are called _____.*

Some synapses are excitatory, generating an electrical charge. Others are inhibitory reducing impulses

2. *The sum of all _____ and _____ impulses determines whether the next neuron will fire.*

3. *Neuroscientists assert what about the kinds of events that explain what happens in the brain.*

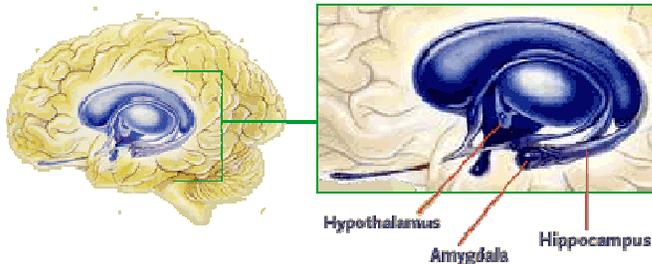
- biological and chemical events determine them
- psychological and physiological events determine them

THE PHYSIOLOGY OF THE BRAIN

4. *The part of the brain that coordinates body movements and controls posture is the:*
 a. cerebrum b. cerebral hemisphere c. cerebellum

5. *The part of the mammalian brain that maintains temp and blood pressure, regulates emotion, strives for self preservation and sexual desire is the:*

- amygdala
- limbic system
- cerebellum



6. *The basic information processor matching the new information with the old is:*

- hypothalamus
- hippocampus
- thalamus

<http://www.learner.org/discoveringpsychology/brain/limbic.html>

7. *The part of the brain that acts as a liaison with body and brain releasing seven hormones to the pituitary gland is the:*

- hypothalamus
- thalamus
- hippocampus

8. *The part of the brain that acts a relay station is the:*

- hypothalamus
- thalamus
- hippocampus

9. In this part of the brain nerves get translated into images symbols words ideas:

- a. cerebellum b. cerebrum c. corpus callosum

10. Brain hemispheres are connected by the:

- a. reticular formation b. cerebellum c. corpus callosum

MEASURING ELECTRICAL ACTIVITY IN THE BRAIN

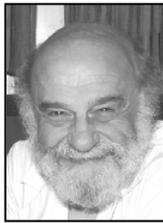
Brain imaging: Electrical activity from neurons' signals can be recorded when they respond to an event.

11. The brain wave pattern of the total activity of the brain's neurons is recorded by an:

- a. MRI b. CAT c. EEG

12. If the brain functioning is normal the color is on the brain imaging is:

- a. earth b. red c. orange



13. According to Dr. Roy E. John, abnormal regions of the brain are red. The major disorders can be recognized by:

- a. hormonal analysis
b. neurometric analysis

MEASURING CHEMICAL ACTIVITY IN THE BRAIN

14. The brain is a biochemical drug factory manufacturing opioid peptides. Each follows a specific path in the body. They act like narcotics, producing euphoria or reducing pain. They are known as:

- a. endorphins b. dopamine c. acetylcholine



Joseph Martinez finds some chemicals affect learning and memory.

15. When the synapse is de-activated it leads to amnesia. This neurotransmitter is greatly reduced in Alzheimer's patients:

- a. acetylcholine b. epinephrine c. norepinephrine d. dopamine



Mieke Verfaellie

Psychologist Mieke Verfaellie studies the causes and effects of amnesia, Her research draws on evidence of damage to the hippocampal region of the brain, the area responsible for laying down new memories.

16. Amnesiacs typically still have identities and knowledge after their loss of memory, but what happens when Richard is asked about former NFL running back, O.J. Simpson?

- a. he can't remember the player at all
b. he knows the player is retired, but can't remember his more recent murder charge