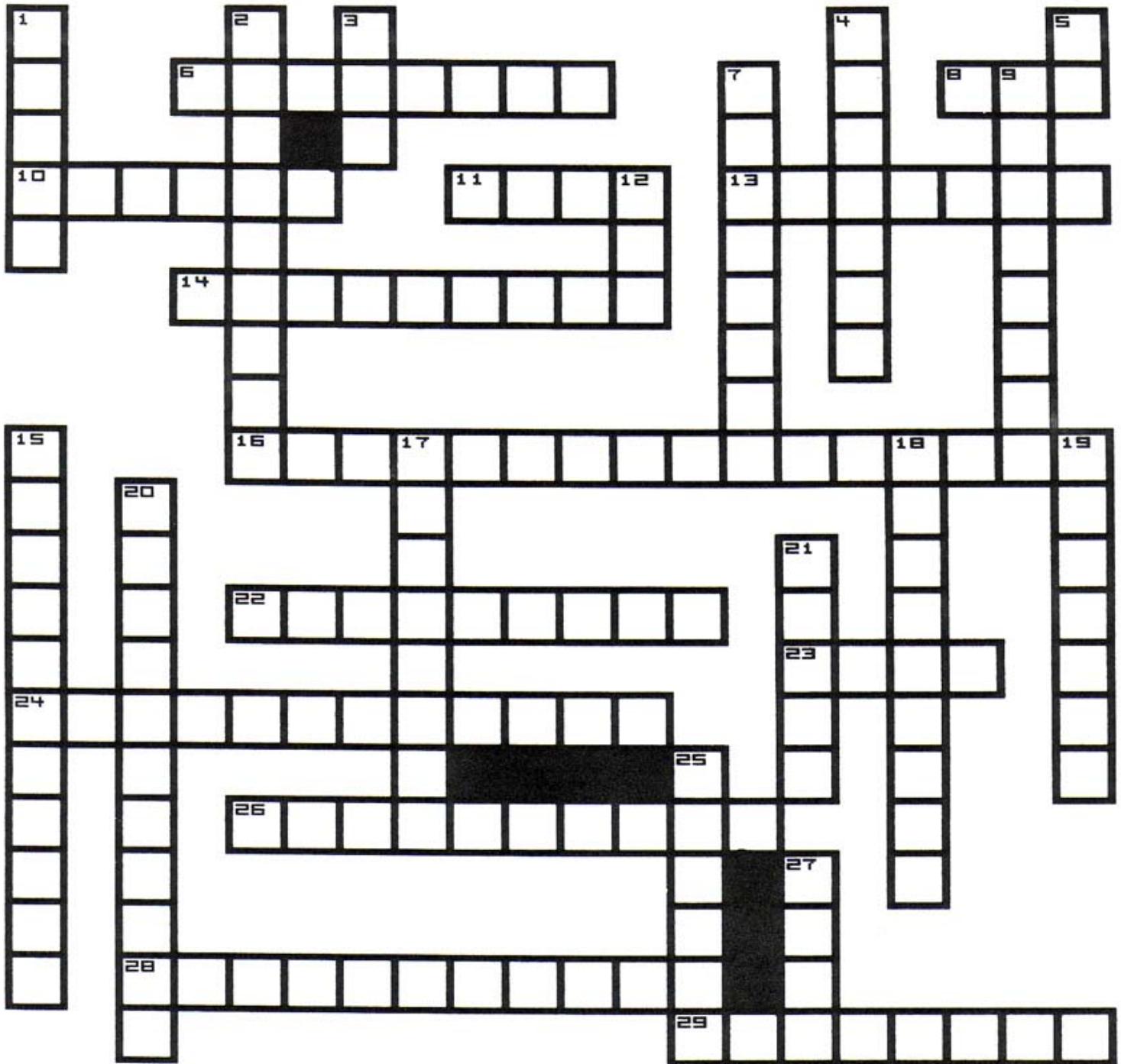


Action Potential Puzzle



ABSOLUTE
 ACTION
 ALLORNOTHING
 CA+
 CHANNEL
 CLEFT
 DEPOLARIZED
 DOPAMINE
 EPSP
 EPINEPHRINE

GRADED
 IPSP
 K+
 LOCAL
 NA+
 NEUROTRANSMITTER
 PAD
 POLARIZED
 POTENTIAL
 PUMP

RELATIVE
 REFRACTORY
 RECEPTOR
 RESTING
 REPOLARIZED
 SEROTONIN
 SYNAPSE
 THRESHOLD
 VESICLES

Action Potential Puzzle

ACROSS CLUES

6. During the _____ refractory period an impulse may be triggered by a stimulus of high intensity.
8. The ion in presynaptic terminal that causes the synaptic vesicles to release neurotransmitters.
10. The all or none potential that travels down the axon is called an _____ potential.
11. The Na⁺K⁺ _____ returns the resting membrane ion balance.
13. The space between the presynaptic terminal and the postsynaptic terminal of two neurons.
14. The resting membrane condition where the outside is + and the inside is - is called _____.
16. The chemical that carries a nerve impulse across the synapse
22. The difference in electrical charge between two points is called the _____ difference.
23. A local potential that causes the depolarization (excites) of a membrane is called a _____ (abbr)
24. If a nerve response at all, it responds completely. 3 words.
26. Period following a nerve impulse in which an ordinary stimulus will not trigger a response.
28. A excitatory neurotransmitter that is also a stress hormone released from the adrenal gland.
29. A neurotransmitter in the brain that is released from the pleasure center.

DOWN CLUES

1. Type of potential that is caused by a stimulus to a cell membrane that is graded. (EPSP OR IPSP)
2. An inhibitory neurotransmitter in the brain that regulates the amount of sensory information.
3. Ion responsible for depolarizing the cell membrane when it enters due to an EPSP neurotransmitter.
4. A passage way through a protein that allows a particular ion enter the cell.
5. Ion that immediately restores the electrical conditions of the cell membrane after depolarization.
7. Synaptic _____ contain neurotransmitters.
9. The refractory period that allows not even a strong stimulus to cause a response in the cell.
12. This word is necessary to fit in pump so it is a _____.
15. When in response to a stimulus the membrane becomes less negative it is said to be _____.
17. A protein located in the cell membrane that receives a neurotransmitter.
18. The point at which a stimulus is strong enough to produce a action potential.
19. The membrane potential of a cell that is polarized.
20. When a cell is depolarized, it must be _____ to return to resting membrane potential.
21. The space between two neurons is called the synaptic _____.
25. A potential that may be of a varied strength depending on the stimulus.
27. A local potential that causes a hyperpolarization (inhibiting) of the cell membrane. (abbr)