Name _____

Use the words to the left to fill in the passage about sliding filament theory below.

Actin

Action Potential

Acetylcholine (ACh)

ATP

Brain

Calcium +2

Contraction

Crossbridge

H-Zone

Myosin

Myosin Binding Sites

Myosin Heads

Neuromuscular Junction

Neuron

Power Stroke

Sarcolemma

Sarcomere

Sarcoplasmic Reticulum

T-Tubules

Tropomyosin

You want to take a step forward. Your _____ sends out a message called an _____ to your body. That message travels down a _____ into the place where it connects to the muscle fiber called the _____. At this point, the neurotransmitter chemical called _____ is released. This chemical causes a message to travel across the _____ and through the _____ . Stored _____ ions which have been at rest in the _____ are now released into the _____. Calcium ions attach to the troponin changing its shape. The change in shape moves the _____. This exposes the _____. The _____ can now attach. This attachment is called the _____. The sarcomere uses _____ from glycogen to cock the myosin heads back and push them forward. This action is called a _____. This action slides the _____ past the _____ shortening the z-lines and hence the sarcomere also shortens. In doing so the _____ practically disappears. This process allows _____ of the gastrocnemius and you can step forward.