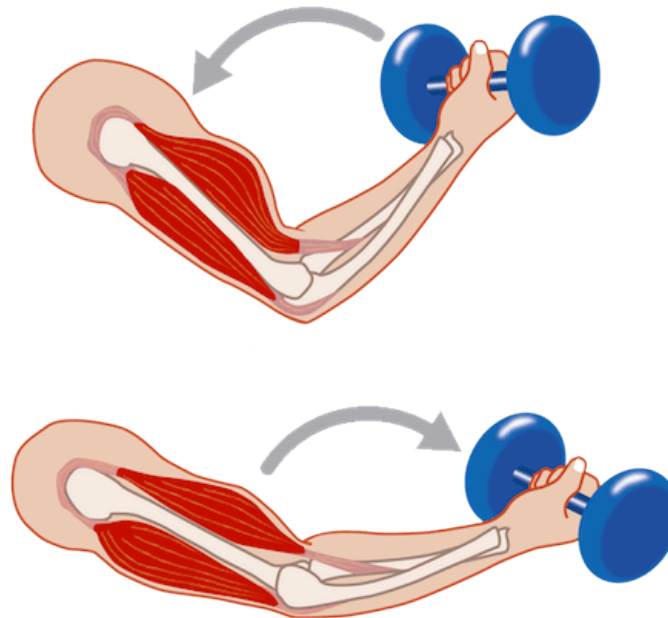


### How Muscles Work - Worksheet

How do we move? Bones and muscles control body movements. Bones make up the skeleton that gives the bodies strength, shape and are important in creating movement. Muscles are stretched across the skeleton and joints, and are connected to bones with tendons. Making the muscles contract and relax causes the body to move.

There are 206 bones in the human body and approximately 640 muscles that work in pairs. Simply put, muscles work together in pairs to create movement; as one of the pair contracts and get shorter, its paired muscle relaxes and get longer. The shortening action of the contracting muscle causes the moving part of the body (or lever) to move; this can only happen if the paired muscle relaxes and lengthens to allow the lever to move.

In the picture below the top upper arm muscle (bicep) contracts and gets shorter, and the muscle underneath the upper arm (tricep) relaxes and lengthens. The elbow is the joint that is affected and the hand moves towards the shoulder. As the forearm is lowered again, it is now the tricep that contracts and the bicep that lengthens.



If you contract both muscles at the same time, then the forearm will be held in a static position or a still hold; this is how we control stillness and balance in our gymnastics lessons.

**Now sit on a bench or chair and explore which muscle contracts to make you extend a leg and which muscle relaxes and lengthens to allow the movement.**