**MUSCLES**

We need muscles to move. Some of our movements are involuntary – or happen whether we want them to or not. These are called s…………………………….. muscle. For example muscles in the intestines and h……………………… and some are voluntary – they move with our conscious control. eg. …………………………… and …………………………..These are called sk……………………………….. muscle.

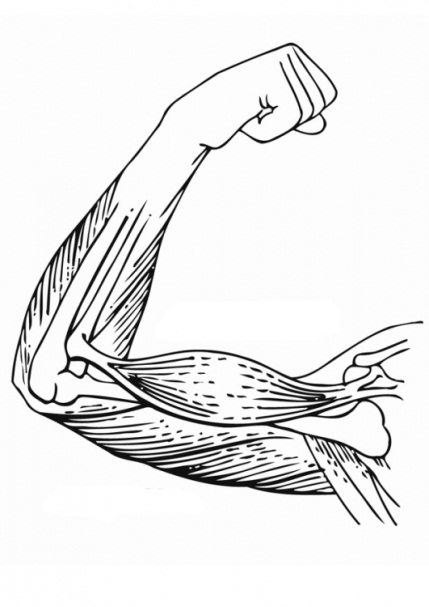
There are 3 types of muscles:

1. Smooth - involuntary
2. Skeletal - voluntary
3. cardiac - heart muscle

Muscles are made of cells called muscle fibres. The muscle fibres shorten to contract a muscle. A relaxed muscle extends.

Complete the following:

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Skeletal** | **Smooth** | **Cardiac** |
| Give some types of each muscle |  |  |  |
| Do they attach to bone?  If yes, how? |  |  |  |
| Are they mostly voluntary or involuntary? |  |  |  |
| Are they striated? This means the muscle fibres are aligned parallel to each other |  |  |  |

A muscle that causes motion is called an agonist. When a muscle works with an agonist to produce movement, it is called the synergist. When a muscle moves the joint opposite to the movement produced by the agonist, it is called the antagonist. Two examples of agonist and antagonist pairs include the biceps and the t………………….,

the hamstrings and the c……………………

Add the biceps and triceps to these bones to show how they work to flex and extend the elbow.

**JOINT AND MUSCLE PAIN**

|  |  |
| --- | --- |
| WHAT DOES IT MEAN TO ‘PULL A MUSCLE’? | WHAT DOES IT MEAN TO DISLOCATE YOUR ELBOW? |
| WHAT IS ARTHRITIS? | WHAT KIND OF INJURY RESULTS IN A KNEE RECONSTRUCTION? EXPLAIN ONE TYPE OF KNEE RECONSTRUCTION |
| WHAT IS OSTEOPOROSIS?  HOW CAN IT BE PREVENTED? | WHAT HAPPENS IF YOU TEAR YOUR ACHILLES TENDON? WHAT IS THE TREATMENT? |