Science - Year 3 – Autumn - How do skeletons and muscles work?

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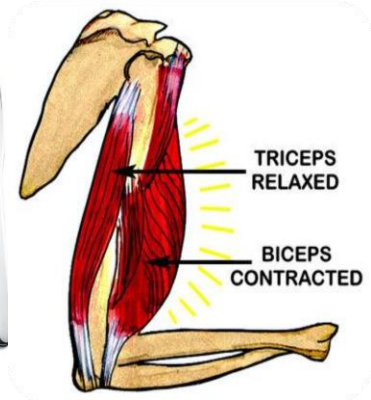
What I already know:

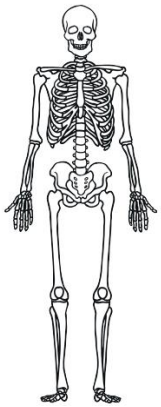
The human body is made up of lots of parts. These include the head, brain, heart, stomach, legs, arms and back. Different parts of the body are associated with the five senses.
All living things have certain characteristics that are essential for keeping them alive and healthy. Water, food and air are essential for human survival.
Foods can be split into different groups: carbohydrates, proteins, fats, dairy, fruit and vegetables. These can be shown through the Eatwell Plate. It is important to eat a balance of different types of food and exercise regularly in order to maintain a healthy body.
Animals, including humans, have offspring which grow into adults.

What I need to know:

The skeleton is a frame which supports our bodies, helps us move and protects us.
There are 206 bones in a human skeleton, including the skull, spine and ribs. Bones are living things which grow with age.
Some animals have skeletons. They are known as vertebrates.
Some animals do not have a backbone and skeleton and are known as invertebrates. Some animals have exoskeletons, which is a protective external structure instead of a skeleton. Insects are examples of living things with exoskeletons.
Muscles in the body enable parts of the skeleton to move. Muscles usually work in pairs, such as the bicep and tricep muscles in the arm.
In a fair test, an independent variable is something that is altered or changed. The dependent variable changes as a result of the independent variable. Other things in the experiment stay the same and are called constant variables.







SDG Link:
Good Health and Wellbeing – Lesson 6 – To identify which foods can keep bones and muscles healthy.

3 GOOD HEALTH AND WELL-BEING

Vocabulary Focus:

Tier 2:

skeleton – the inner framework of bones in vertebrate animals.
bone marrow – soft, fatty tissue at the core of most bones where blood cells form.
x-ray – a photograph made with a beam of radiation that can pass through any solid material.
organ – part of plants or animals that performs a particular task.
data – pieces of information that can be used to learn about something.
independent – the one thing that a scientist changes in an experiment.
dependent – what is being tested or measured in the experiment; it depends on the independent variable.
control – things that remain constant during an experiment and do not change.
muscles – tissue in the body of animals and humans that moves part of the body. **joint** - a place or point where two or more parts come together or are connected.
calcium – a substance that is one of the chemical elements, used by the body for building healthy bones and teeth.
vitamin D – a substance found in some foods and drink which is required for bone development.
nutrients – something in food that helps living things grow.
brittle – easily broken.

Tier 3:

spinal cord – the thick cord of nerve tissue inside the spine that runs from the base of the brain to the end of the spine.
osteologist –the study of the skeletal system.
variable – something that can change or vary.
contract – to make smaller by drawing together, shrinking or making tighter.
biceps – the large muscle at the front of the upper arm that bends the elbow.
triceps – the large muscle on the back of the upper arm that straightens the elbow.
invertebrate – an animal that does not have a backbone or skeleton inside its body.
vertebrate – an animal that has a skeleton with a backbone inside its body.
endoskeleton – the internal supporting framework of vertebrates.
exoskeleton – an external supporting structure such as the shell of a crab.