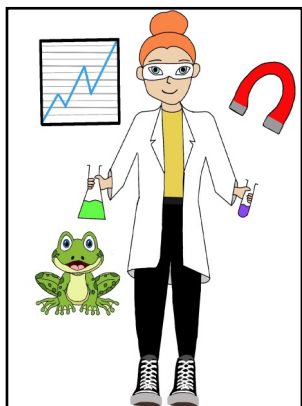




Knowledge Organiser

Year Group:	3	Subject:	Science– Animals including humans	Term:	Spring 1
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Enquiry Question

How do bones and muscles work together to create movement?

Substantive Knowledge (key facts)

- Humans (and many other animals) have a system of bones called a skeleton.
- The three most important things a skeleton does are:
 - ◇ support and shape.
 - ◇ allow movement.
 - ◇ protect organs.
- Animals that have a skeleton are called vertebrates. It can be on the inside or the outside of the body.
- Endoskeletons are inside of the body.
- Exoskeletons are outside of the body.
- Humans and many other animals also have a system of muscles in their bodies, the main purpose is for movement.

What should I already know?

- The parts of the human body and what they do.
- There are five types of vertebrates (mammals, fish, reptiles, amphibians, birds).
- Vertebrates are animals that have a backbone.
- Invertebrates are animals that do not have a backbone.
- All animals need water, air and food to survive.
- The different ways in which humans can be healthy

Concept

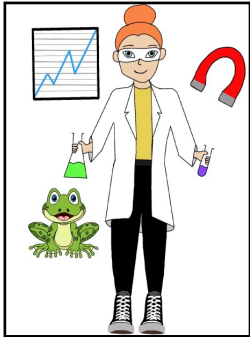


Scientific skills I am practising

- I can gather, record, classify and present information in a variety of different ways to help me answer questions.
- I can identify differences, similarities or changes related to simple scientific ideas and processes.

Sequence of learning

1)	Observe and identify bones in the human body and the purpose of the skeleton.
2)	Investigate why animals need bones.
3)	Investigate the purpose of muscles and how they work.
4)	Compare animals with and without skeletons.
5)	Build a bionic hand to show how muscles and bones work together.
6)	understand animal and human nutrition.



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Key vocabulary

Tier 2

Joint - The point where two bones connect and can move/bend/rotate

Pelvis—A large bone that both of the femurs attach to (legs)

Femur—The largest bone in the body. Top bone in your leg.

Humerous—The bone in the top part of your arm.

Tier 3

Biceps—two muscles that are used to make your arm move/bend.

Triceps—three muscles that are used to extend the arm out straight.

Quadriceps– four muscles in the top of the leg.

Abdomen—the core area of the body.