Lodge Farm Primary School- Knowledge Organiser

Science Topic: Animals including Humans (Bones and Muscles)

Year: 3 **Term:** Spring 1

Key Knowledge/Content:

- Many animals have skeletons to support their bodies and protect vital organs.
- Muscles are connected to bones and move them when they contract.
- Movable joints connect bones.

Scientist Focus:

Marie Curie (Physicist)
Known for helping to develop x-rays, which are used to identify broken bones today. It eventually killed her when she caught cancer.

Links to:

Prior learning:

To learn about organs of the human body relating to the five senses and explored the growth of a human.

Future learning:

To learn about more functions of the human body, including how water and nutrients are carried around the body.

Key vocabulary with definition:

Prior vocabulary:

- Bone- A hard part inside the body which form most animals.
- Animal- A living thing that needs water and food to live.
- Movement- Changing someone's position.

New vocabulary:

- Skeleton- The bones of the body, which form a framework for support, protection and movement.
- Joint- The places in the body where bones meet.
- Muscle- Live under the skin and control movement and balance.
- Endoskeleton- A skeleton found within the interior of the body.
- Exoskeleton- A hard covering supporting and protecting some animals such as beetles or snails.
- Hydrostatic skeleton- A flexible skeleton supported by fluid pressure.
- X-ray- Special pictures that show the inside of your body, in particularly your bones.
- Fracture- The term used for a broken bone.
- Contract (muscle)- When a muscle shortens and pulls on the bone it is attached to.
- Relax (muscle)- When a muscle gets longer, loosening the muscle it is attached to.

By the end of this unit

All children can: **identify** the main reasons that living things have a skeleton and **describe** how muscles relax and contract to create movement.

Most children can: **compare** the different types of skeletons in living things and **describe** how joints work to support movement.

Some children can: **explain** what happens when a muscle or bone is damaged and **investigate** how skeletons can change over a long period of time.

Background understanding for teachers and parents:

This unit will look at how bones (forming a skeleton), and muscles make up the human body. They will investigate different types of skeletons in living things and look at how the human skeleton changes over time.

Curriculum Driver (one):

Healthy Lifestyle

Evidence outcome:

Understand the importance of the bones and muscles in our body and explain how to look after them to avoid injury.