



St James' Church of England Primary School

Science Overview Sheet



Year 3 – Skeletons & Movement



Rationale: Pupils should be introduced to the relationship between structure and function: the idea that every part has a job to do. They should explore questions that focus on the role of the roots and stem in nutrition and support, leaves for nutrition and flowers for reproduction. **Note:** Pupils can be introduced to the idea that plants can make their own food, but at this stage they do not need to understand how this happens.

Pre-unit task: Knowledge Organiser Quizzes

Working Scientifically:

- Comparing the effect of different factors on plant growth, for example the amount of light, the amount of fertiliser.
- Discovering how seeds are formed by observing the different stages of plant cycles over a period of time.
- Looking for patterns in the structure of fruits that relate to how the seeds are dispersed.
- Observing how water is transported in plants, for example, by putting cut, white carnations into coloured water and observing how water travels up the stem to the flowers.

Statutory Requirements:

- **Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers.**
- **Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant.**
- **Investigate the way in which water is transported within plants.**
- **Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.**
- Roots grow downwards and anchor the plant.
- Water, taken in by the roots, goes up the stem to the leaves, flowers and fruit.
- Nutrients (not food) are taken in through the roots.
- Stems provide support and enable the plant to grow towards the light.
- Plants make their own food in the leaves using energy from the sun.
- Flowers attract insects to aid pollination.

Overview:

Lesson 1: Nutrition - To sort foods into food groups and find out about the nutrients that different foods provide
Lesson 2: Food Labels - To explore the nutritional values of different foods by gathering information from food labels.
Lesson 3: Skeletons - To sort animal skeletons into groups, discussing patterns and similarities and differences
Lesson 4: Human skeleton - To investigate an idea about how the human skeleton supports movement
Lesson 5: Muscles - To explain how bones and muscles work together to create movement
Lesson 6: Investigating - To design and carry out my own investigation.

Cross Curricular Links

Resources

Real food with labels for the children to examine, Measuring tapes/metre sticks, Chalk, Whiteboards, Scissors, Split pins, Elastic bands – 2 per child, Sticky tack/tape

Notes and Guidance

Most Children will: •Children can talk about what animals and humans need to stay healthy, showing a basic understanding of healthy eating. •Children can talk about how different animals require a different balance of nutrients and can read simple food labels. •Children can name and briefly describe the different types of skeletons. •Children can match labels to some parts of the human skeleton.

Less Able Children will: •Children can talk about what animals and humans need to stay healthy, showing an understanding of the food groups and the nutrients humans need for a healthy diet. •Children can talk about how and why different animals require a different balance of nutrients and can gather and understand a range of information from food labels.

More Able Children will: •Children can talk about what animals and humans need to stay healthy, showing an understanding of the food groups and the nutrients humans need for a healthy diet and why we need them. •Children can talk about how and why different animals require a different balance of nutrients and can talk confidently about what the information on food labels tells us