BIOLOGY

YEAR 3 and 4: SUMMER 2

How does each part of the plant support reproduction?

COVERAGE: How does each part of the plant support reproduction?

Pupils who are secure will be able to:

- Identify what plants need to grow healthily.
- Describe the structure and function of the parts of flowering plants.
- Investigate how plants transport water.
- Describe the life cycle of a flowering plant.
- Explain seed dispersal methods.

When working scientifically, pupils who are secure will be able to:

- Pose relevant questions.
- Design and record in results tables.
- Plan a simple enquiry.
- Complete, read and interpret data in a bar chart.
- Identify and suggest changes to an enquiry.
- Use results to draw conclusions.

KEY LANGUAGE AND VOCABULARY:

bar chart

conclusion

female

flowering plant

male

pattern (KS1)

pollen

pollination

predict (KS1)

record

reproduction

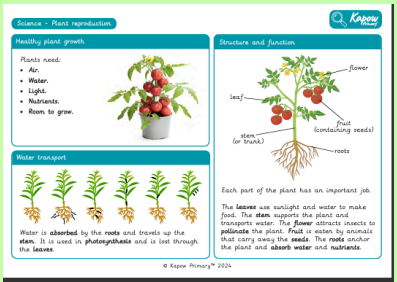
results table

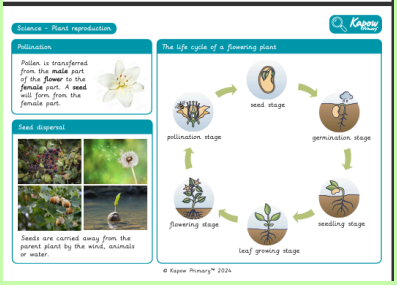
seed dispersal

transport

variable

KNOWLEDGE AND FACT SHEET





KEY QUESTIONS:

1. **What do plants need to survive and grow?**
2. **How does the structure and function of plants inter relate?**
3. **Can you explain how water moves through a plant and why?**
4. **What role do flowers play in the life cycle of a plant?**
5. **How and why do seeds become dispersed?**
6. **How do we plan an investigation or enquiry?**

KEY SKILLS AND KNOWLEDGE

<u>Knowledge</u>

- The functions of the basic parts of a plant and the relationship between structure and function.
- Water is transported within a plant from the root, through the stem and to the leaves.
- Plants need water, light, air, nutrients and a suitable temperature for growth and health.
- The needs for growth and health vary from plant to plant.
- The life cycle of a plant from seed to mature plant.
- Flowers are the reproductive organs of a plant.
- Pollination is the transfer of pollen to the female (part of the) flower.
- The process of seed formation is the growth of a seed after pollination.
- Different methods of seed dispersal and their benefits.

<u>Skills</u>

<u>Posing questions</u>

- Beginning to raise further questions during the enquiry process.
- Considering what makes a testable question.

- Beginning to recognise that there are different types of enquiry and that they are suitable for different questions.
- Beginning to make suggestions about how different questions could be answered.

Planning

- Beginning to suggest what observations to make and how long to make them for.
- Making predictions about what they think will happen by using scientific knowledge and/or personal experience to explain their prediction.

Observing

- Using their senses to describe, in more detail and with simple scientific vocabulary, what they notice or what has changed.

Measuring

- Using standard units to measure and compare.
- Using measuring equipment with increasing accuracy.
- Reading scales with unmarked intervals between numbers.

Recording

- Using a prepared table to record results including more detailed observations.
- Using tables with more than two columns.
- Identifying and adding headings to tables.
- Beginning to design simple results tables.

Grouping and classifying

- Grouping based on visible characteristics and measurable properties.

Graphing

- Reading the value of bars with greater accuracy.

Analysing and drawing conclusions

- Writing a conclusion to summarise findings using simple scientific vocabulary.
- Beginning to suggest how one variable may have affected another.
- Beginning to quote results as evidence of relationships.
- Identifying data that does not fit a pattern (anomalous data).
- Recognising when results or observations do not match their predictions.
- Beginning to use identified patterns to predict new values or trends.

Evaluating

- Beginning to identify steps in the method that need changing and suggest improvements.

- Beginning to identify which variables were difficult to control and suggesting how to control them better.	
ENRICHMENT: ● **Children will carry out practical investigations and measurements into how plants grow and under what different conditions.**	**Previous Learning:** **The children will have developed their knowledge of bone structure and how a balanced diet supports an increase in energy.** **Future Learning:** **The children in Year 3 will develop their understanding about magnets and how they work.** **The children in Year 4 will develop their understanding of light and reflection in Year 5.**
School Drivers to Examine **Children will look at:** - **Care of the Environment = how can we support and care for plant reproduction in our own environment? Why is this important?**	