



Kexborough Primary School : Curriculum Planning

Science : Year 2

The principal focus of science teaching in Key Stage 1 is to enable pupils to **experience** and **observe phenomena**, looking more closely at the natural and humanly-constructed world around them. They should be encouraged to **be curious** and **ask questions** about what they **notice**. They should be helped to **develop their understanding of scientific ideas** by using **different types of scientific enquiry** to **answer their own questions**, including **observing changes** over a period of time, **noticing patterns**, **grouping** and **classifying** things, carrying out **simple comparative tests**, and **finding things out** using **secondary sources** of information. They should begin to use **simple scientific language** to talk about what they have **found out** and **communicate their ideas** to a range of audiences in a variety of ways. Most of the learning about science should be done through the use of **first-hand practical experiences**, but there should also be some use of **appropriate secondary sources**, such as books, photographs and videos. **'Working scientifically' is described separately in the programme of study, but must always be taught through and clearly related to the teaching of substantive science content in the programme of study.** Throughout the notes and guidance, examples show how scientific methods and skills might be linked to specific elements of the content. Pupils should **read and spell scientific vocabulary** at a level consistent with their increasing word reading and spelling knowledge at key stage 1

During years 1 and 2, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:

- asking simple questions and recognising that they can be answered in different ways
- observing closely, using simple equipment
- performing simple tests
- identifying and classifying
- using their observations and ideas to suggest answers to questions
- gathering and recording data to help in answering questions.

SCIENTIFIC SKILLS

Planning, Communication and Sources	Enquiring and Testing / Obtaining and Presenting Evidence	Observing and Recording	Considering Evidence and Evaluating
1. Describe their observations using some scientific vocabulary 2. Use a range of simple texts to find information 3. Suggest how to find things out 4. identify key features 5. Ask questions	6. Use simple equipment provided to aid observation 7. Compare objects, living things or events 8. Make observations relevant to their task 9. Begin to recognise when a test or comparison is unfair 10. Use first hand experiences to answer questions	11. Respond to questions asked by the teacher 12. Ask questions 13. Collect and record data (supported by the teacher) 14. suggest how they could collect data to answer questions 15. Begin to select equipment from a limited range	16. Say what has happened 17. Say what their observations show and whether it was what they expected 18. Begin to draw simple conclusions and explain what they did 19. Begin to suggest improvements in their work

SCIENTIFIC KNOWLEDGE—ANIMALS INCLUDING HUMANS

National Curriculum—Statutory PoS Substantive Knowledge	Language / Vocabulary Substantive Knowledge	Experiences	Cross curricular / Inter Disciplinary
Notice that animals, including humans, have offspring which grow into adults Find out about and describe the basic needs of animals, including humans, for survival (water, food and air) Describe the importance for humans of exercise, eating the right amounts of different types of food,	Offspring, grow, adults, nutrition, reproduce SURVIVAL: water, food, air, exercise, hygiene HUMAN: baby, toddler, child, teenager, adult Egg, chick, chicken; lamb, sheep; spawn, tadpole, frog; egg, caterpillar, pupa, butterfly		

SCIENTIFIC KNOWLEDGE— ANIMALS AND THEIR HABITATS

National Curriculum—Statutory PoS Substantive Knowledge	Language / Vocabulary Substantive Knowledge	Experiences	Cross curricular / Inter Disciplinary
<p>Explore and compare the differences between things that are living, dead, and things that have never been alive</p> <p>Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other</p> <p>Identify and name a variety of plants and animals in their habitats, including micro-habitats</p> <p>Describe how animals obtain their food from plants and other animals, using the idea of a simple food</p>	<p>Living, dead, never alive, habitats, micro-habitats, food, food chain, sun, human, alive, healthy</p> <p>Leaf litter, stony path, under bushes, shelter, seashore, woodland, ocean, rainforest,</p> <p>CONDITIONS: hot, warm, cold, dry, damp, wet, bright, shade, dark</p>		

SCIENTIFIC KNOWLEDGE—PLANTS

National Curriculum—Statutory PoS Substantive Knowledge	Language / Vocabulary Substantive Knowledge	Experiences	Cross curricular / Inter Disciplinary
<p>Observe and describe how seeds and bulbs grow into mature plants</p> <p>Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</p>	<p>Wild plants, common plants, deciduous, evergreen</p> <p>Plant, leaf, root, leaves, bud, flowers, blossom, petals, root, stem, trunk, branches</p> <p>Grow, healthy, suitable, water, light, temperature, germination, reproduction</p> <p>Fruit, vegetables, bulb, seed</p>		

SCIENTIFIC KNOWLEDGE— USE OF EVERYDAY MATERIALS

National Curriculum—Statutory PoS Substantive Knowledge	Language / Vocabulary Substantive Knowledge	Experiences	Cross curricular / Inter Disciplinary
<p>Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses</p> <p>Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</p>	<p>Wood, metal, plastic, glass, brick, rock, paper, cardboard, rubber</p> <p>Squashing, bending, twisting, stretching</p> <p>PROPERTIES : SHOULD BE REVISED FROM YEAR 1 UNIT</p>		