Stage 4

E Scientific enquiry

Ep Ideas and evidence

- **4Ep1** Collect evidence in a variety of contexts
- **4Ep2** Test an idea or prediction based on scientific knowledge and understanding

Ep Plan investigative work

- **4Ep3** Suggest questions that can be tested and make predictions; communicate these
- **4Ep4** Design a fair test and plan how to collect sufficient evidence
- **4Ep5** Choose apparatus and decide what to measure

Eo Obtain and present evidence

- **4Eo1** Make relevant observations and comparisons in a variety of contexts
- **4Eo2** Measure temperature, time, force and length
- **4Eo3** Begin to think about the need for repeated measurements of, for example, length
- **4Eo4** Present results in drawings, bar charts and tables

Eo Consider evidence and approach

- **4Eo5** Identify simple trends and patterns in results and suggest explanations for some of these
- **4Eo6** Explain what the evidence shows and whether it supports predictions. Communicate this clearly to others
- **4Eo7** Link evidence to scientific knowledge and understanding in some contexts

B Biology

Bh Humans and animals

- **4Bh1** Know that humans (and some animals) have bony skeletons inside their bodies
- **4Bh2** Know how skeletons grow as humans grow, support and protect the body
- **4Bh3** Know that animals with skeletons have muscles attached to the bones
- **4Bh4** Know how a muscle has to contract (shorten) to make a bone move and muscles act in pairs
- **4Bh5** Explain the role of drugs as medicines

Be Living things in their environment

- **4Be1** Investigate how different animals are found in different habitats and are suited to the environment in which they are found
- **4Be2** Use simple identification keys
- **4Be3** Recognise ways that human activity affects the environment, e.g. river pollution, recycling waste

C Chemistry

Cs States of matter

- **4Cs1** Know that matter can be solid, liquid or gas
- **4Cs2** Investigate how materials change when they are heated and cooled
- **4Cs3** Know that melting is when a solid turns into a liquid and is the reverse of freezing
- **4Cs4** Observe how water turns into steam when it is heated but on cooling the steam turns back into water

P Physics

Ps Sound

- **4Ps1** Explore how sounds are made when objects, materials or air vibrate and learn to measure the volume of sound in decibels with a sound level meter
- **4Ps2** Investigate how sound travels through different materials to the ear
- **4Ps3** Investigate how some materials are effective in preventing sound from travelling through them
- **4Ps4** Investigate the way *pitch* describes how high or low a sound is and that high and low sounds can be loud or soft. Secondary sources can be used
- **4Ps5** Explore how pitch can be changed in musical instruments in a range of ways

Pm Electricity and magnetism

- **4Pm1** Construct complete circuits using switch, cell (battery), wire and lamps
- **4Pm2** Explore how an electrical device will not work if there is a break in the circuit
- **4Pm3** Know that electrical current flows and that models can describe this flow, e.g. particles travelling around a circuit
- **4Pm4** Explore the forces between magnets and know that magnets can attract or repel each other
- **4Pm5** Know that magnets attract some metals but not others