

Science in Key Stage 1 and Key Stage 2

Stokes Wood Primary School Progression Charts

The National Curriculum Programme of Study for Science describes a sequence of knowledge and concepts, processes and methods. This sequence of knowledge and concepts is arranged as progressive blocks of key ideas in biology, chemistry and physics, alongside a progression in the skills of working scientifically.

The conceptual ideas in biology, chemistry and physics build on each other and children need to develop a strong understanding of each set of ideas in order for the next set to make sense and for them to make progress. The Programme of Study is set out year by year for Key Stages 1 and 2 but each science topic is not covered in every year. For science at Stokes Wood Primary School, it is therefore important that teachers and children know where each block of ideas fits into the overall sequence.

In these progression charts, the key ideas within biology, chemistry and physics in the National Curriculum are arranged to show how they are related to each other and how one idea builds on another. The National Curriculum statements have been edited into key-idea statements. The source of each key idea is identified by the year group and the Programme of Study topic heading. Some additional statements have been added to make important links between ideas.

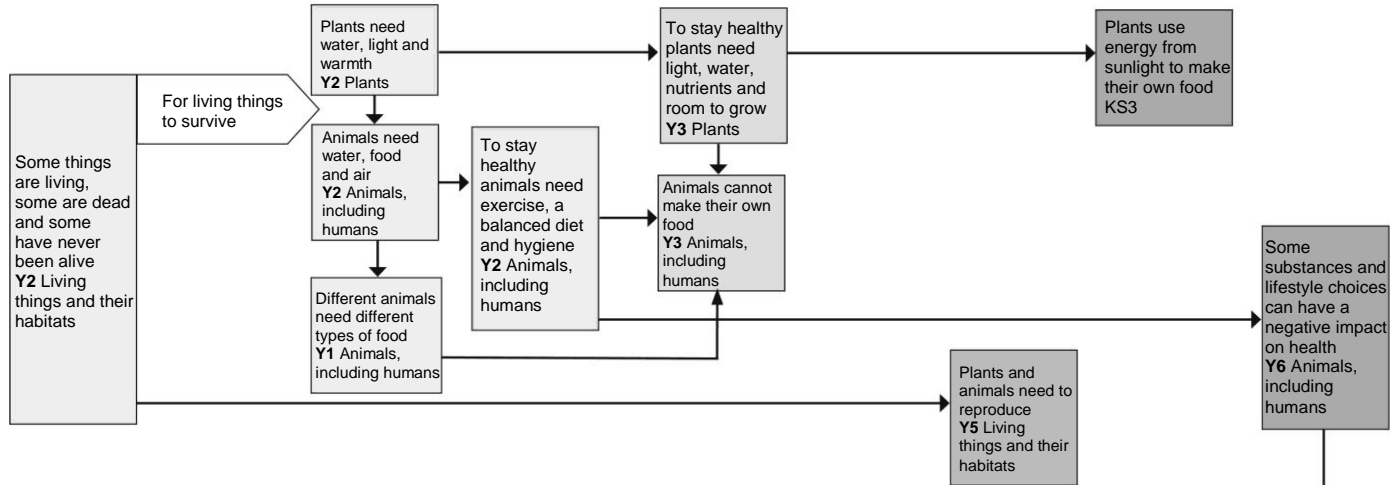
Working Scientifically is taught throughout Key Stages 1 and 2, and is embedded within the content of biology, chemistry and physics. The National Curriculum Programme of Study for Working Scientifically outlines the practical scientific methods, processes and skills that children must be taught to use. It is divided into three two-year blocks. In every lesson at Stokes Wood Primary School, children use their developing science-enquiry skills to answer scientific questions. The progression chart for Working Scientifically exemplifies the progression in these skills in the key areas of raising questions and planning, collecting and presenting data, and drawing and evaluating conclusions.

This progression underpins the sequence of teaching and learning in each module and between year groups at Stokes Wood Primary School.

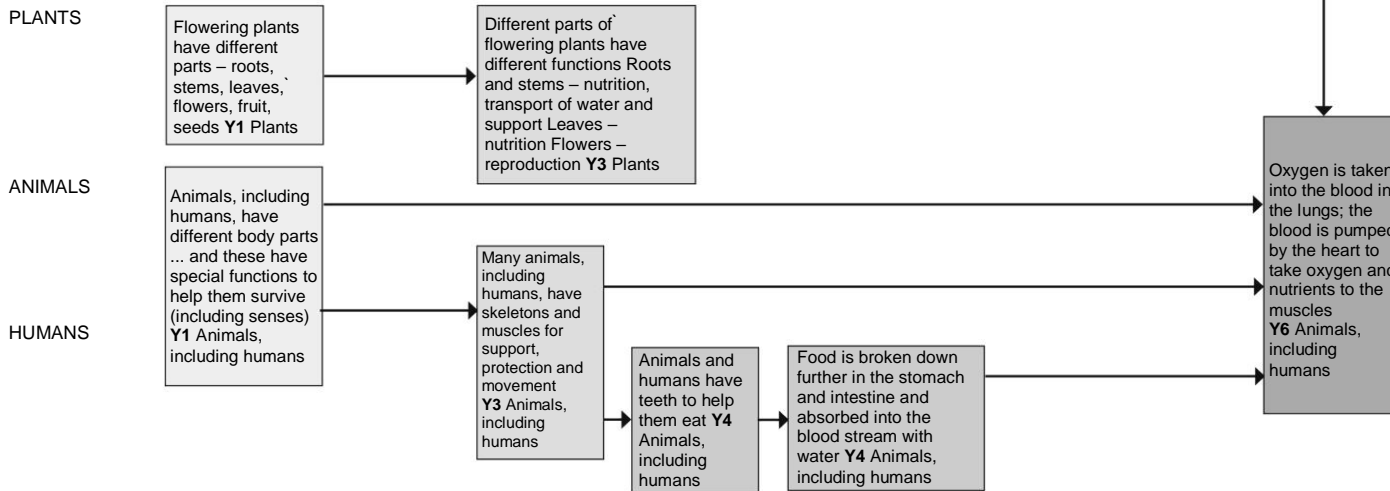
Science in the Early Years Foundation Stage is covered mainly through the Understanding the World area of the curriculum. Science at Stokes Wood Primary School is introduced through activities that encourage every child to explore, problem solve, observe, predict, think, make decisions and talk about the world around them. Understanding the World involves guiding children to make sense of their physical world and their community through opportunities to explore, observe and find out about people, places, technology and the environment. Play-based science activities in the EYFS at Stokes Wood Primary School provide children with opportunities to develop and practise communication skills, team-working and perseverance, as well as analytical, reasoning and problem-solving skills. Science at the start of Key Stage 1 builds on pupils' curiosity.

BIOLOGY: progression of ideas through KS1 and KS2

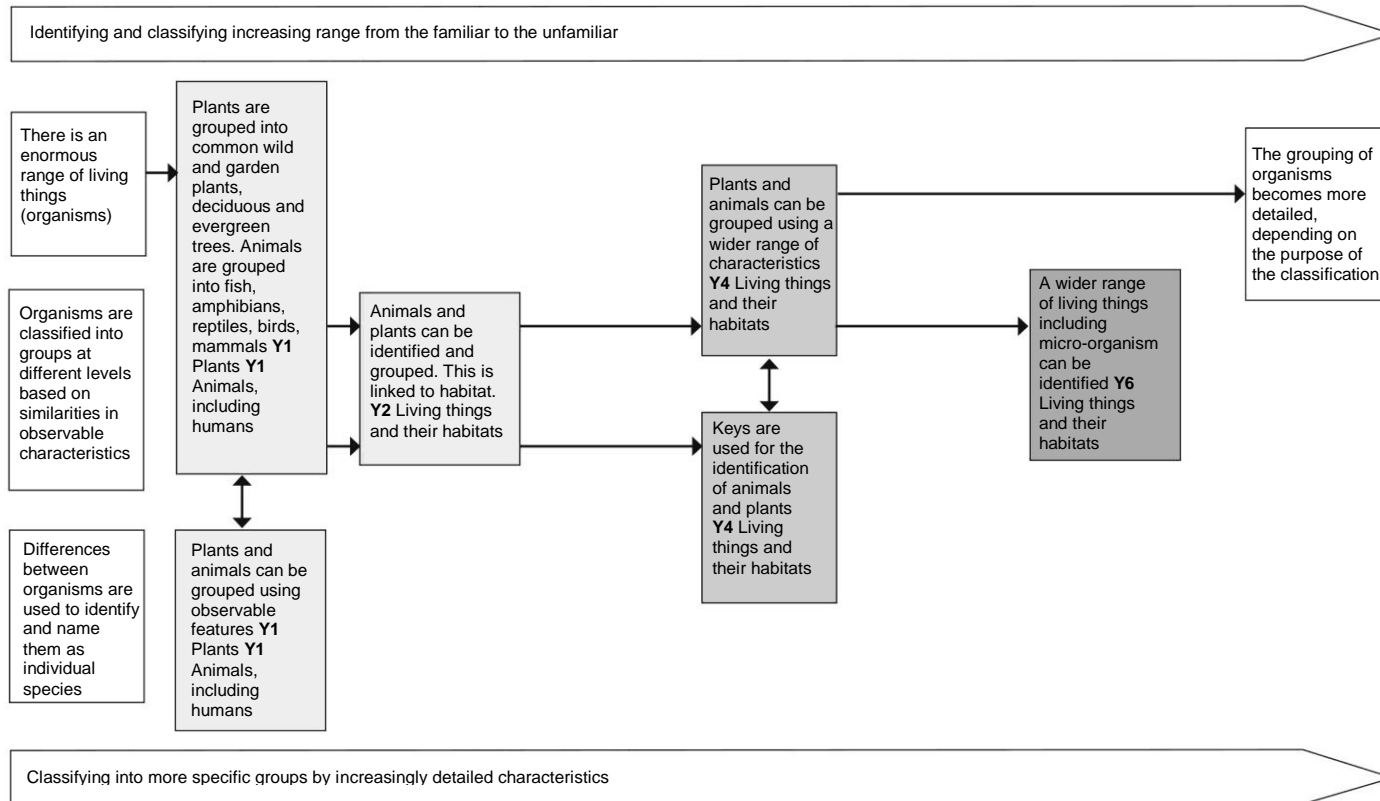
Life Processes



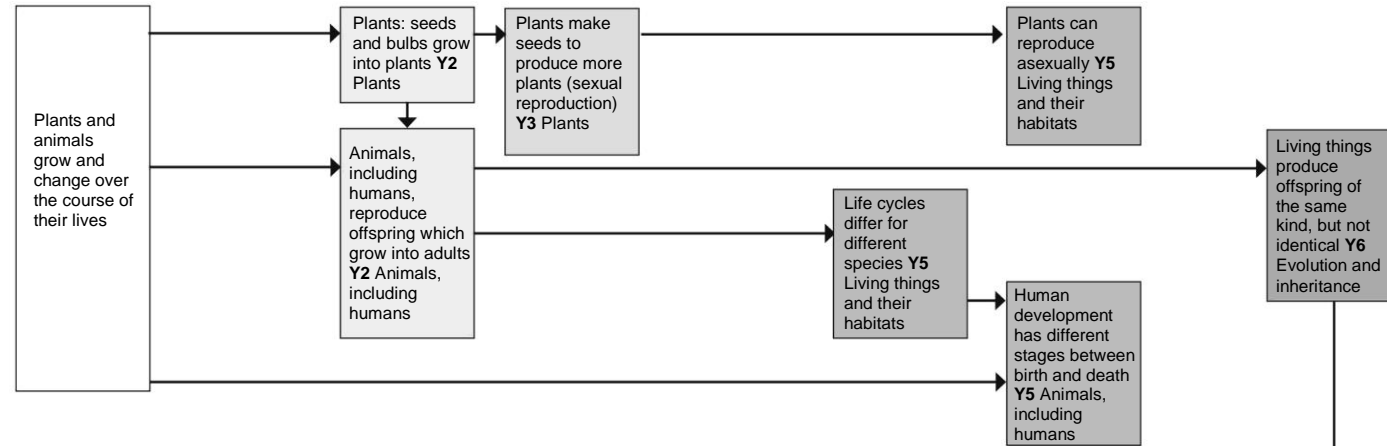
STRUCTURE AND FUNCTION



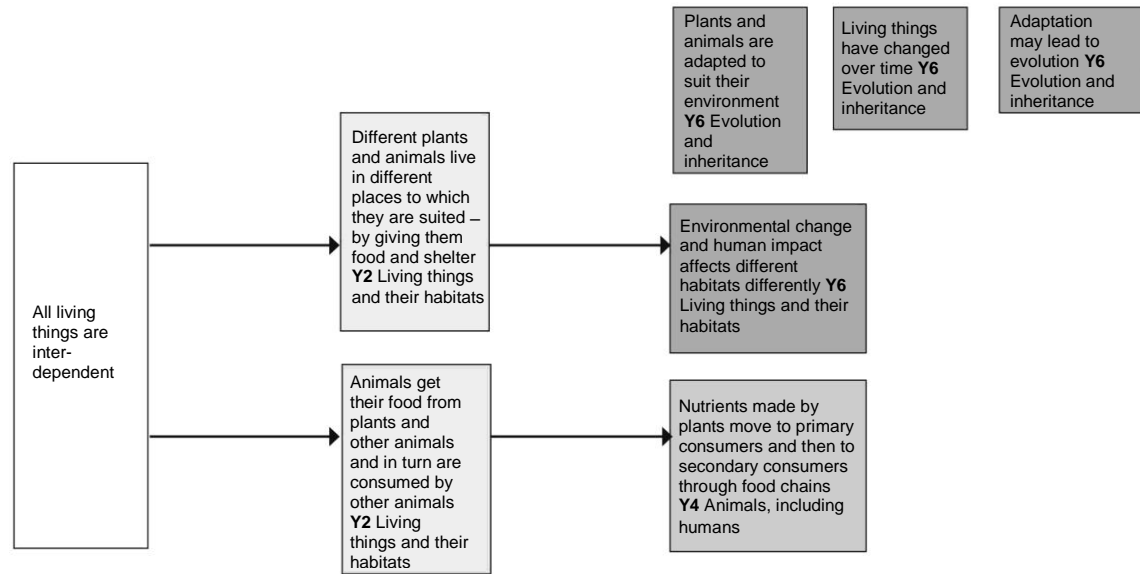
CLASSIFICATION



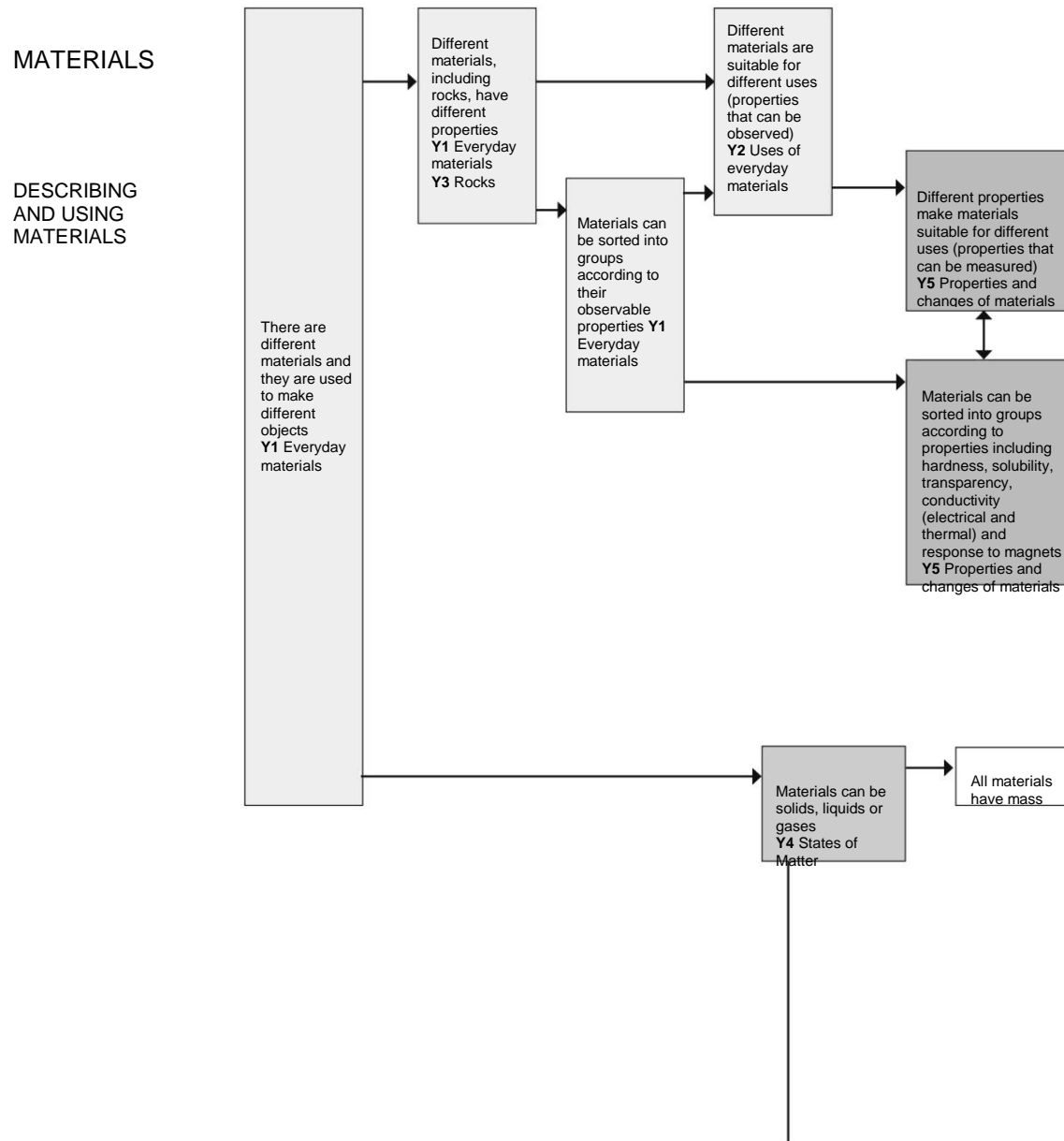
LIFE CYCLES



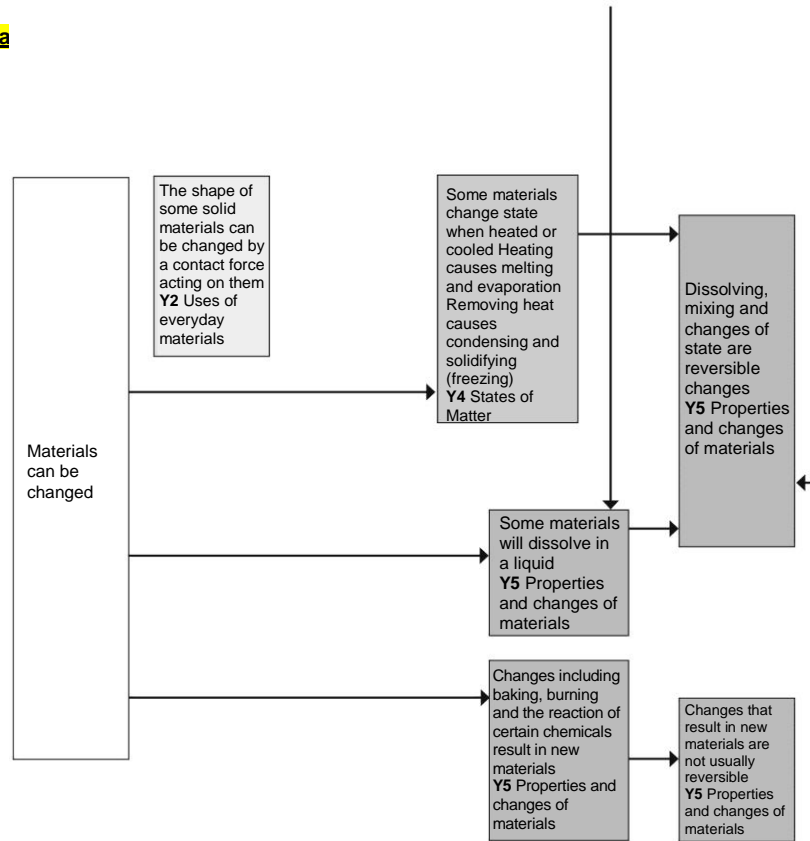
INTERDEPENDENCE



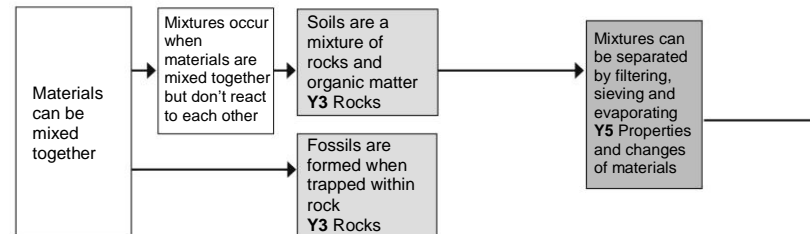
CHEMISTRY: progression of ideas through KS1 and KS2



CHANGING MATERIALS

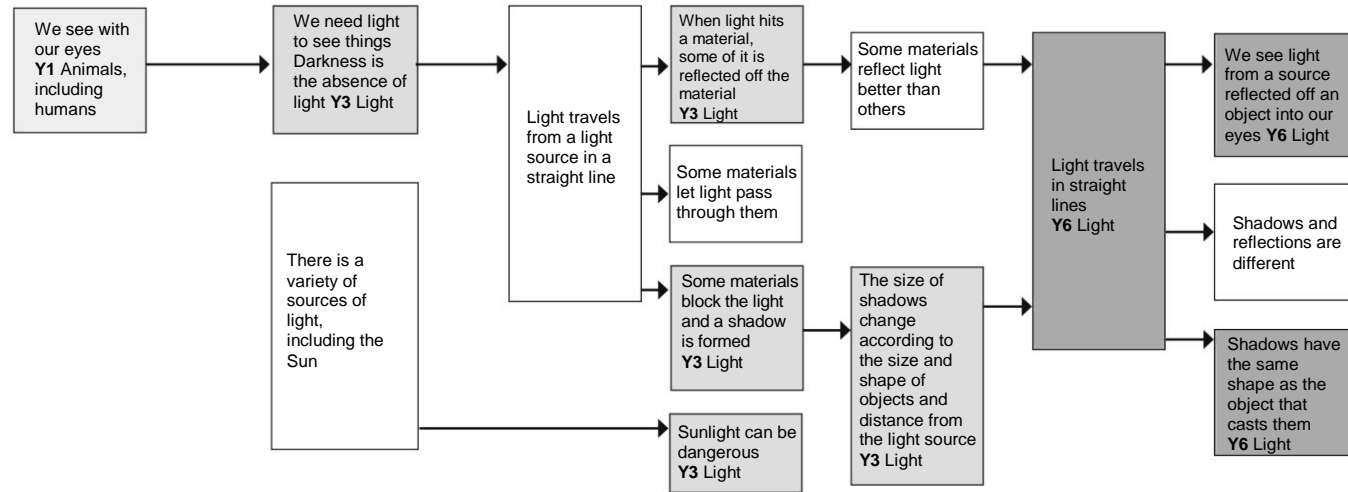


MIXING AND SEPARATING MATERIALS

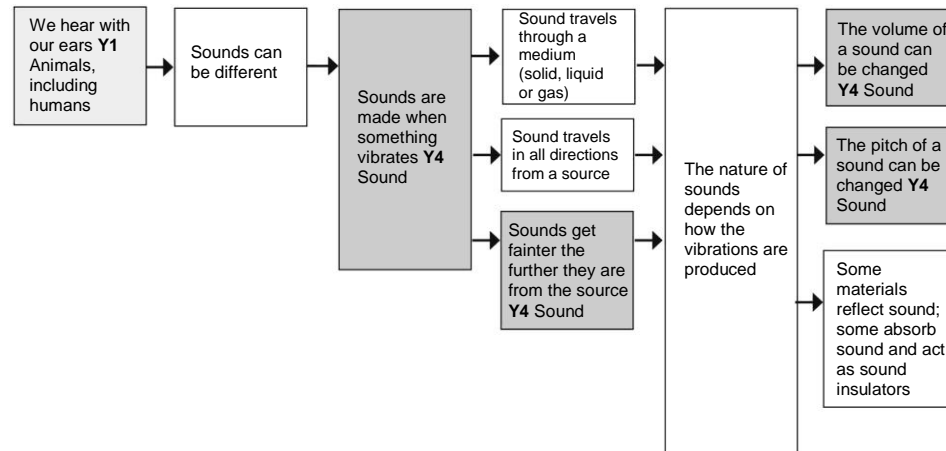


PHYSICS: progression of ideas through KS1 and KS2

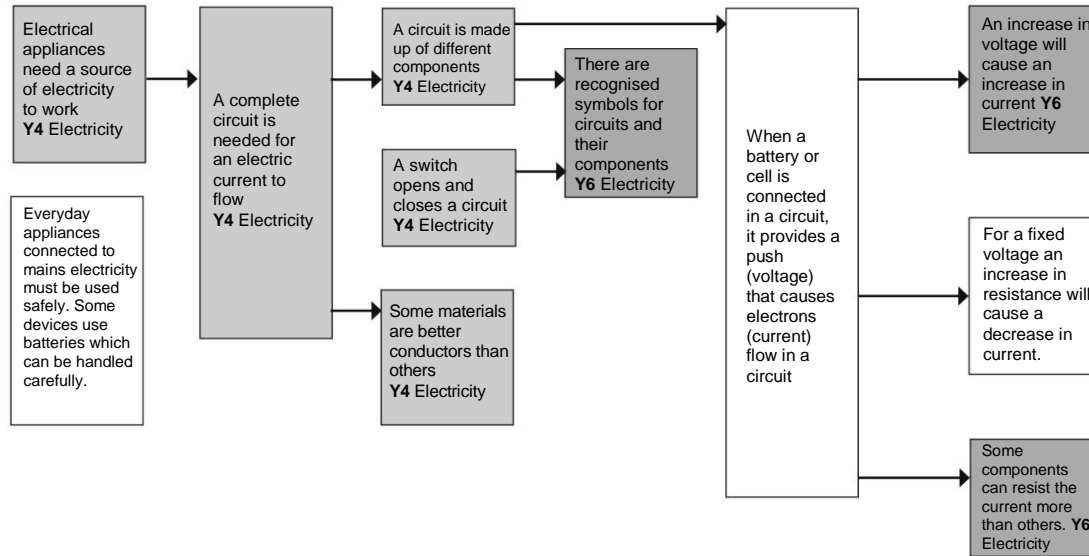
LIGHT



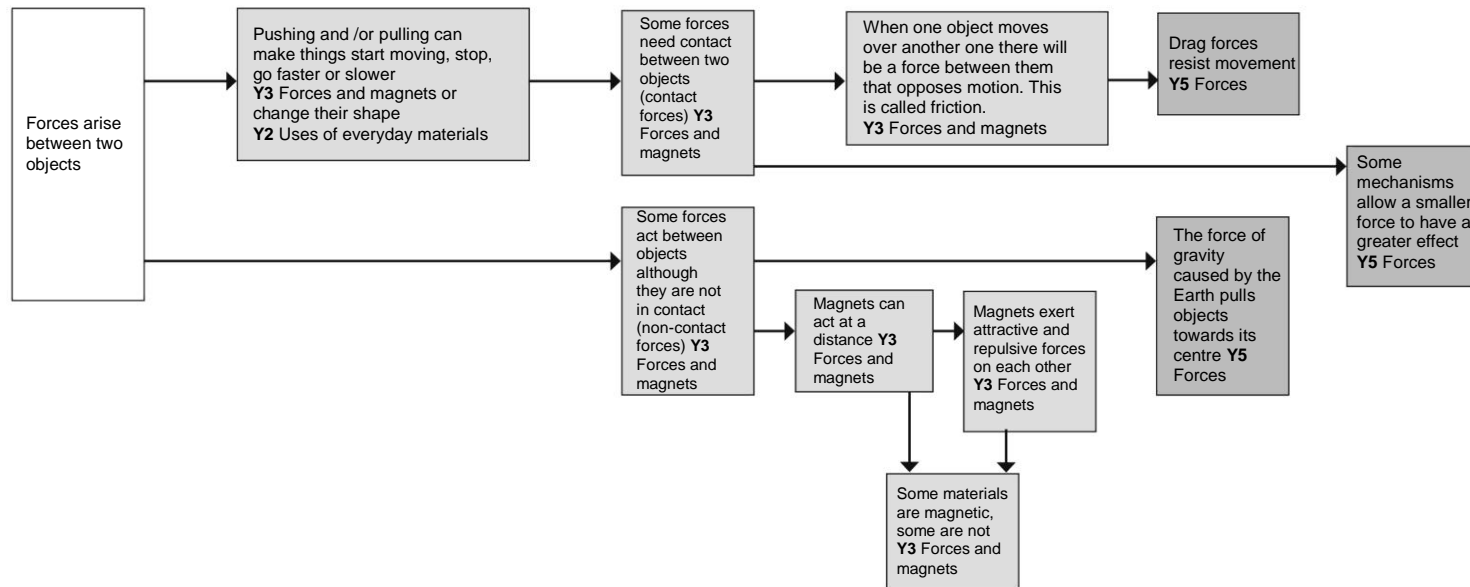
SOUND



ELECTRICITY



FORCES



EARTH IN SPACE

