# 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. It is therefore important that teachers and children know where each block of ideas fits into the overall sequence.

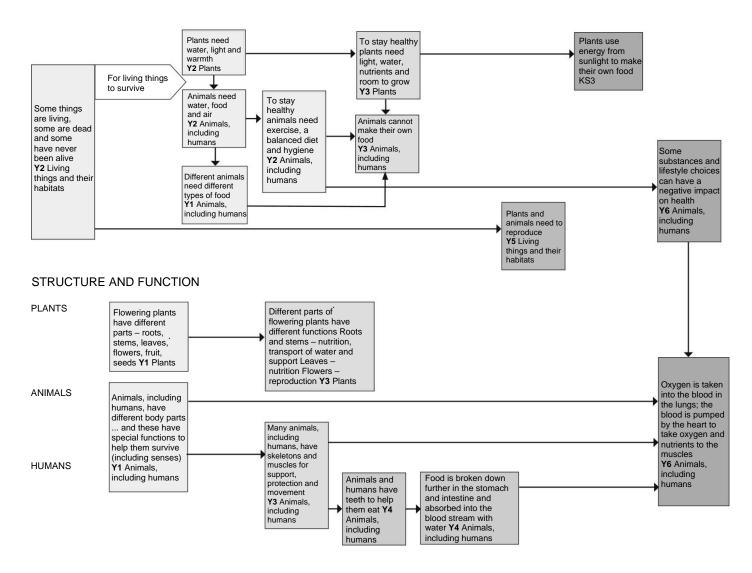
In the Snap Science Progression Charts the key ideas within Biology, Chemistry and Physics in the National Curriculum are arranged to show how they are related to each other and how one idea builds on another. The National Curriculum statements have been edited into key ideas statements. The source of 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 KS1 and 2, 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, divided into three two-year blocks. In every lesson in Snap Science children will use their developing science enquiry skills to answer scientific questions. The Snap Science Progression Chart for Working Scientifically exemplifies the progression in these skills in the key areas of raising questions and planning, collecting and presenting data, drawing and evaluating conclusions.

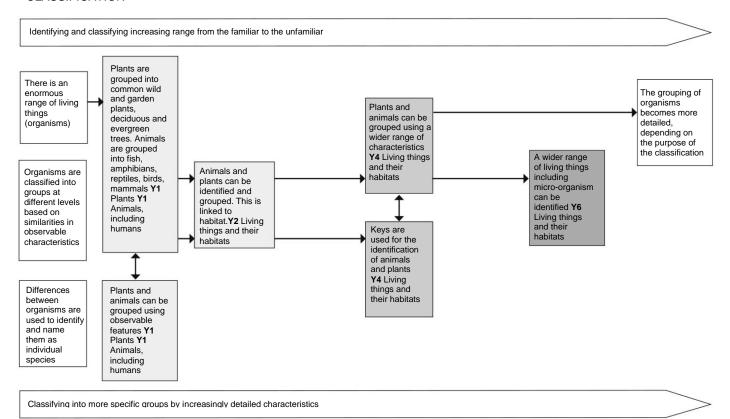
This progression underpins the sequence of teaching and learning in each Snap Science module and between year groups.

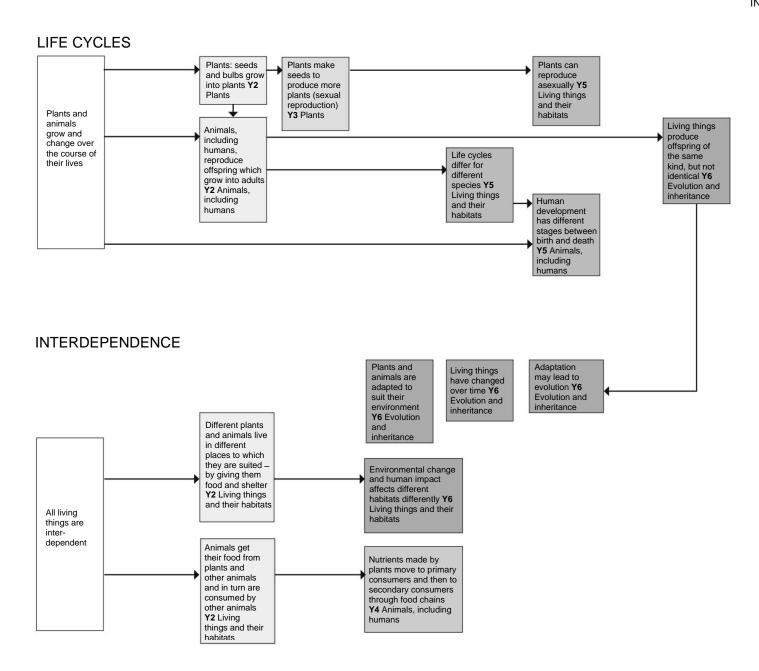
## **BIOLOGY: progression of ideas through KS1 and 2**

#### LIFE PROCESSES



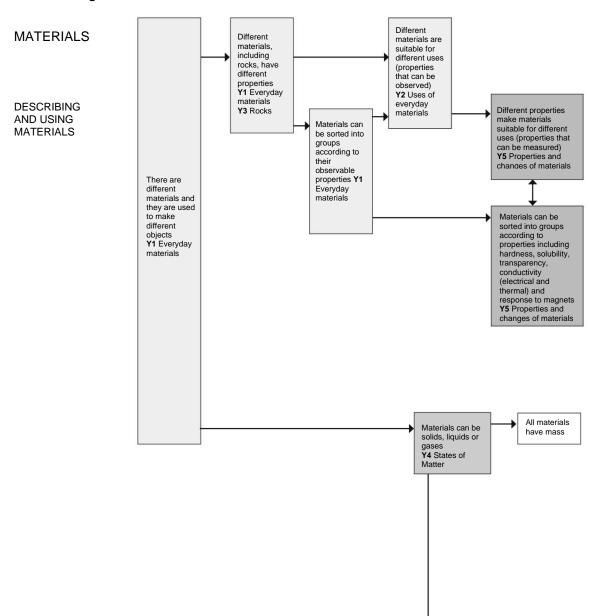
#### **CLASSIFICATION**





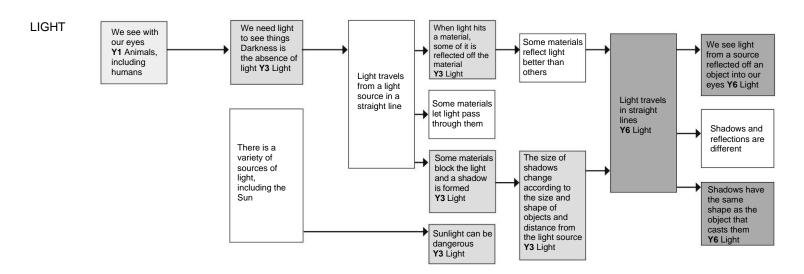
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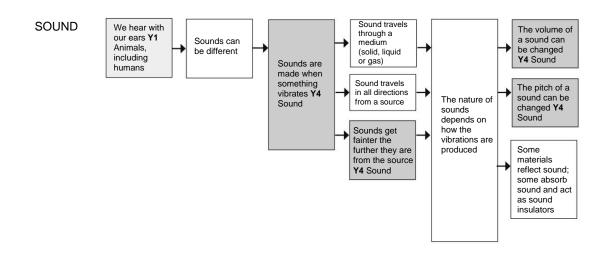
#### CHEMISTRY: progression of ideas through KS1 and 2



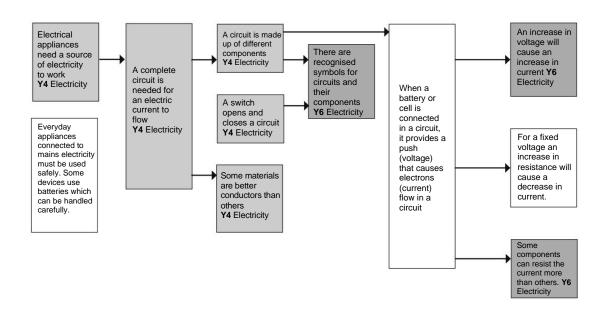
#### **CHANGING MATERIALS** The shape of Some materials some solid change state materials can when heated or be changed by a contact force cooled Heating causes melting acting on them Y2 Uses of and evaporation Removing heat Dissolving, mixing and everyday materials causes changes of condensing and solidifying state are reversible (freezing) Y4 States of changes Y5 Properties Matter and changes of materials Materials can be changed Some materials will dissolve in a liquid Y5 Properties and changes of materials Changes including baking, burning and the reaction of Changes that result in new certain chemicals materials are result in new not usually materials reversible Y5 Properties and Y5 Properties changes of and changes of materials materials Mixtures occur Soils are a MIXING AND SEPARATING MATERIALS Mixtures can when mixture of materials are be separated rocks and mixed together by filtering, organic matter Materials but don't react sieving and Y3 Rocks can be evaporating Y5 Properties to each other mixed Fossils are and changes together formed when of materials trapped within rock Y3 Rocks

#### PHYSICS: progression of ideas through KS1 and 2





### ELECTRICITY



#### **FORCES**

