# Key Stage 1

| Working scientifically – the knowledge of how to gather and analyse evidence | | |
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| **Key Stage 1 National Curriculum statements** | **In *Snap* Year 1 lessons children…** | **In *Snap* Year 2 lessons children continue to use and develop skills learnt in Year 1 and…** |
| **Asking simple questions and recognising that they can be answered in different ways** | • ask questions about what they notice and **observe** in the world around them<br>• show curiosity about **similarities** and **differences** between living things and materials<br>• use what they have noticed or observed to answer questions | • ask questions about how things are similar and different, materials' suitability and how things change<br>• begin to recognise that there are different ways to answer scientific questions, including naming things, sorting them and comparing them |
| **Observing closely, using simple equipment** | • make **observations** using all their senses, using context-specific vocabulary to describe them<br>• use **magnifiers** to look more closely<br>• make **comparisons** | • make more systematic observations of features and changes<br>• take **measurements** using non- standard units (string, blocks), and then cm<br>• learn that a **thermometer** is used to measure **temperature** |
| **Performing simple tests** | • follow simple instructions to carry out simple comparative **tests**<br>• use practical resources provided, including water droppers | • learn to only change one thing in a **comparative test** to make sure it is **fair**<br>• begin to plan simple tests independently<br>• learn how to set up an **observation over time** enquiry<br>• predict a **result** using prior experience and knowledge |
| **Identifying and classifying** | • use sorting hoops to **group** materials and objects using their own and given criteria<br>• use simple ID sheets to **identify** living things | • select their own sorting criteria<br>• use observable features to classify living things using ID cards |
| **Gathering and recording data to help in answering questions** | • gather first-hand data from a variety of sources<br>• record their observations in words and labelled pictures (drawn and photos); simple prepared tables and pictograms; block and paper strip **bar charts** | • use prepared tables to classify living things and materials<br>• construct simple bar charts using templates<br>• add labels to **diagrams** |

# Key Stage 1

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| **Using their observations and ideas to suggest answers to questions** | • use simple scientific language to describe their observations and answer questions<br>• use their data to recognise and **rank** differences | • identify **patterns** in their data<br>• use data collected in **enquiries** to inform their answers to questions<br>• begin to develop **explanations** based on evidence collected and previous experience and knowledge |

## Working scientifically – knowledge about science

In Key Stage 1, children learn that scientists are curious. They make observations of the world around them to build scientific knowledge, looking for similarities and differences between materials and living things to understand more about them and to be able to identify them. Scientists share this knowledge. Children experience at first hand how scientists set up enquiries to test ideas and find out what things are like and how they change. They learn that science enquiries don't always work. They learn that everyone can do science and that science is part of all their lives now and will be in the future.

**Blue text** indicates key working scientifically vocabulary taught and used in Year 1 and Year 2.

## Enquiry types

In *Snap* children use different enquiry types to learn more about the methods scientists use to build scientific knowledge. In all lessons, children answer a question to develop their conceptual knowledge and explicitly learn and use working scientifically procedural skills. In some lessons, where appropriate, children complete an enquiry to gather data to answer the question – see list below. The enquiry type is always relevant to the context.

| **Enquiry types** | **Year 1** | **Year 2** |
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| **Observing over time** | Module 1: Seasonal changes<br>• This module is taught over the year, compiling a diary of how a local environment changes with the seasons – effectively an extended 'observing over time' enquiry. | Module 3: Growing seeds and bulbs<br>• 1: How do plants grow and change over time?<br>• 5: What have we learnt about how a seed germinates?<br>Module 4: Growing up (animals and humans)<br>• 1: How do animals change as they grow? |

# Key Stage 1

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|---|---|---|
| **Identifying and classifying** | Module 1: Seasonal changes<br>• 1: Are all leaves the same?<br>• 2: Which animals share our space?<br>• 3: Do all trees shed their leaves?<br>• 4: Are all flowers the same?<br>• 5: Which birds visit our bird feeders?<br>• 6: How has our space changed over the year?<br>Module 2: Human body and senses<br>• 3: What can we hear?<br>Module 3: Naming and describing materials<br>• 1 and 2: What material is this?<br>• 4: Is all fabric the same?<br>• 5: How can we group objects made of different materials?<br>Module 4: Properties and uses of materials<br>• 1: Can the same object be made from different materials?<br>• 2: What properties do materials have?<br>Module 5: Animals (vertebrates)<br>• 1: Who's who in the animal (vertebrate) world?<br>• 2: What's so special about birds?<br>Module 6: Identifying plants and their parts<br>• 1: What wild and garden plants can we find around our school? | Module 1: Local habitats<br>• 2: What lives in my tree?<br>• 3: What animals live in this woody habitat?<br>• 4: What animals live in this grassy habitat?<br>• 6: What do the animals that live in the pond eat?<br>Module 3: Growing seeds and bulbs<br>• 2: How are seeds and bulbs different?<br>Module 4: Growing up (animals and humans)<br>• 3: How can we sort food into groups?<br>Module 5: Changing materials<br>• 1: How can I change the shape of an object?<br>• 2: What properties allow a material to be changed?<br>• 3: Which material is fit for purpose? |
| **Pattern seeking** | Pattern seeking enquiries require children to collect two sets of data and identify any pattern between them. In Year 1, the focus is on children noticing possible relationships – for example, where most daisies grow, that thinner fabrics are used for summer clothes – not collecting two data sets. | Module 3: Growing seeds and bulbs<br>• 4: How tall will they grow?<br>Module 6: Growing healthy plants<br>• 3: Does temperature affect the growth of mature plants? |

# Key Stage 1

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| **Comparative testing** | Module 3: Naming and describing materials<br>• 3: Is all paper the same?<br>• 4: Is all fabric the same?<br>• 5: How can we group objects made of different materials?<br>Module 4: Using materials<br>• 3: Does it bend or stretch?<br>• 4: Do all materials get wet? | Module 2: Choosing materials<br>• 2: Which ball bounces highest?<br>• 3: Which materials are good for a toddler's play dungarees?<br>Module 3: Growing seeds and bulbs<br>• 3: What do seeds need to germinate?<br>Module 6: Growing healthy plants<br>• 2: Do mature plants need light?<br>• 4: Do mature plants need water? |
| **Research** | In Years 1 and 2, the focus is on children gathering data to answer questions 'at first hand', i.e. handling materials and observing real plants and animals. They also use a wide range of sources to gather information, including talking to 'experts', reading non-fiction books and hearing and reading stories. In Year 1 Module 5: Animals (vertebrates) children use high-quality photographs of a wide range of animals to make observations. | |