

Progression in Skills: Working Scientifically

Our science curriculum does not treat skills as an afterthought; they are the *how* of every lesson.

The curriculum systematically builds skills across five types of scientific enquiry: **observing over time, pattern seeking, identifying and classifying, comparative/fair testing and researching using secondary sources.**

Key Stage 1 (Years 1 & 2): Exploring & Naming

At this foundational stage, the focus is on sensory exploration and building confidence.

- **Asking questions:** Spontaneous questioning; recognizing that questions can be answered in different ways.
- **Testing & observing:** Performing simple, guided tests and observing closely using basic equipment (e.g., magnifying glasses, non-standard measurements like hand-spans).
- **Data & recording:** Sorting and grouping objects by obvious features; recording findings using simple drawings, basic charts or teacher-led tables.

Lower Key Stage 2 (Years 3 & 4): Investigating & Measuring

Children transition from simple exploration to structured, systematic testing.

- **Planning:** Setting up simple comparative and fair tests; identifying what stays the same and what changes (variables).
- **Measuring:** Taking accurate measurements using standard units and tools, such as thermometers, data loggers and stopwatches.
- **Concluding:** Drawing simple conclusions from their data, identifying patterns; using straightforward scientific evidence to answer their own questions.

Upper Key Stage 2 (Years 5 & 6): Autonomy & Analysis

By the end of primary school, children are expected to think, act and evaluate like independent scientists.

- **Advanced planning:** Choosing the most appropriate type of enquiry to answer a question; identifying and controlling multiple variables independently.
- **Complex data:** Recording data of increasing complexity using scientific diagrams, classification keys, scatter graphs and line graphs.
- **Evaluating evidence:** Identifying causal relationships, using test results to make predictions and evaluating the degree of trust they can place in their own conclusions (noticing anomalies).

Snap Science: Every lesson begins with an **Explore** activity to activate prior knowledge and clear up misconceptions, moves into a **Core** investigation and ends with a **Reflect and Review** session so children can articulate what they learned, using precise scientific vocabulary.

EYFS

Snap Science connects EYFS (Reception) to the Key Stage 1 and 2 curriculum through a seamless, play-to-structure framework rooted in the **Understanding the World** Early Learning Goal.

Knowledge Bridge:

Early child-led exploration directly feeds into future modules in our science curriculum:

- **Biology:** Observing classroom wormeries and identifying plant parts in EYFS builds the foundation for Key Stage 1 Habitats and Plants.
- **Chemistry:** Sensory play with muddy, wet, or sticky textures establishes the descriptive vocabulary needed for Key Stage 1 Materials.
- **Physics & earth:** Splashing in puddles and tracking playground shadows transitions into Seasonal Changes (Year 1) and Light (Year 3).

Skills Bridge:

Natural, play-based behaviours are refined into formal skills of working scientifically:

- EYFS curiosity and asking "why" becomes **asking testable questions**.
- EYFS sensory exploration becomes **close observation** using tools like magnifying glasses.
- EYFS sorting and grouping objects by texture or shape becomes **identifying and classifying**.

The curriculum smoothly manages the shift in how children learn. In EYFS, science happens through continuous provision: child-initiated play where adults actively step in to introduce precise vocabulary (like absorb, dissolve or shadow) at the moment of discovery.