



Holmesdale
Yearly Knowledge and Skills Progression
Subject: Science
Year group: Nursery

The EYFS framework is structured very differently to the national curriculum as it is organised across seven areas of learning rather than subject areas.

Each area is split into 17 aspects, all of which are interwoven. The most relevant for science are taken from the following areas of learning:

Understanding The World, with elements from Communication & Language, PSED and Expressive Arts and Design.

We have identified 3 BIG IDEAS that run through our science curriculum. These are evident threads that run through the year groups –

1. Cause and effect. 2. Change. 3. Structure and functions. These are highlighted throughout the maps.

Autumn Term/Spring Term/Summer Term

Knowledge: Children at the expected level of development:

- To use senses to explore natural materials with different or similar properties
- To recognise senses and explore the world
- To talk about differences between materials and changes they notice
- To explore the changes of seasons
- To explore the key features of a life cycle of a plant and an animal
- To plant a seed and learn how to care for it
- To talk about healthy choices about food and to look after teeth
- To begin to understand the need to respect and care for the natural environment and all living things
- To explore and talk about simple forces they can feel

Skills: ELG Understanding The World with links to Communication & Language, PSED and Expressive Arts and Design

- Exploring
- Matching
- Observing
- Talking

Vocabulary:

Sense, sight, smell

Sound, Hearing: squeaky, creaky, noisy, loud, high, shrill, boom, bang, echo, quiet, low shout, yell, hush, whisper, thud, soft, loud

Touch: prickly, warm, hot, woolly, soft, rough, hard, dry, damp, silky, smooth, soft, cool, spiky, knobbly, wet, bumpy

Twist, push, pull, change, design, layers, effect, cover, stick, join, tall, short, improve, select
Plant, tree, leaf, flower, stem, seed, grow
Animal, zebra, giraffe, elephant, monkey, snake, lion, lioness, lion cub, hippopotamus, crocodile.
Day, night
Colour, orange, yellow, green, brown,
Change
Notice
Small / smallest / big / biggest / tall/ Short / Tallest/ Shortest
Use, select, find, objects, create, put together, natural objects, crunchy
Season, Autumn, Winter, Spring, Summer, Moon, Sun
Shapes: circle triangle, rectangle, square, sides, corners, straight, round
Pattern
Dark, light, mix
Head
Savannah, mountains, desert, jungle, safari, water fall, continent, country, globe

How can we enrich this at Holmesdale?

Outdoor learning
Use of woodland
Home role play

End points:

Children will be learning to:
Use all their senses in hands-on exploration of natural materials.
Explore collections of materials with similar and/or different properties.
Talk about what they see, using a wide vocabulary.
Explore how things work.
Plant seeds and care for growing plants.
Understand the key features of the life cycle of a plant and an animal.
Begin to understand the need to respect and care for the natural environment and all living things.
Explore and talk about different forces they can feel.
Talk about the differences between materials and changes they notice.
Know that there are different countries in the world and talk about the differences they have experienced or seen in photos.

Diversity and Cultural Capital

Children sharing different photos, traditions, food etc. from home.
Role-play.
Different celebrations around the world.
Different habitats and cultures from around the world.
Reuse, recycle.

Barriers & Scaffolds

Possible barriers:

Limited prior exposure to scientific vocabulary.
Difficulty understanding abstract terms (e.g. living habitat, material).
EAL learners may not have home language equivalents for scientific words.
Confusion between everyday vs scientific meanings.
Struggling to generate or understand questions.
Sensory overload during investigations (noise, movement).
Accessing outdoor environments (mobility, sensory sensitivity).

Possible scaffolds:

Pre-teach key vocabulary using real objects, images, and actions.
Use Now/Next and dual-coded picture cards.
Provide sentence stems, e.g.: "I observe that..." "This material is suitable because..." "The plant needs ___ to grow."
Use word banks on tables during investigations.
Repeat vocabulary through songs, stories, drama, actions and chants.
Use small-step modelling ("I do → we do → you do").
Provide worked examples: simple diagrams of food chains, labelled plant diagrams.
Give pre-drawn diagrams for children to label.
Use thick pencils, chunky tweezers, child-safe droppers.
Small group work, adult led if necessary.
Give clear and repeated modelling of each stage.
Provide question prompts: "What will happen if we...?" "How could we test...?"
Use structured comparison tables (Sorting into "changed / didn't change", etc.).

Use guided analysis questions, e.g.: “What do you notice?” “Did anything surprise you?”

Use retrieval routines: 2-minute quizzes, picture recalls, pair-share.

Use cumulative comparisons (e.g., “What’s the same / What’s different?”).

Offer low-stimulus versions of activities (quiet zone table, headphones).

Provide predictable routines, visual cues for each stage.

Offer adapted outdoor tasks (e.g., tray-based microhabitats).

Use tactile and multi-sensory resources (natural objects, textured materials).