



SCIENCE CURRICULUM

EYFS Progression

Knowledge | Skills | Vocabulary | Nursery to Reception

Purpose of this document

This document sets out how children's scientific knowledge, practical skills and vocabulary develop from Nursery to Reception at Park Road Academy. It retains the themes and learning in the supplied Science overview, with additional examples to clarify progression and build foundations for Year 1 through exploration, observation, comparison and talk.

EYFS curriculum position

Understanding the World: The Natural World

Science is developed primarily through Understanding the World. Children explore living things, materials, forces, seasons and environments through first-hand experiences. Communication and Language supports questions and explanations; Mathematics supports sorting, comparing and recording. Child-initiated exploration is complemented by adult modelling, guided enquiry and repeated outdoor experiences.

Progression principles

EXPLORE & PLAY	REVISIT & DEEPEN	MODEL & TALK	VALUE INDIVIDUALITY
Children investigate natural materials, living things and how things work through practical play.	Experiences recur so observations, explanations and understanding become more detailed.	Adults model close observation and vocabulary, encouraging questions and explanations.	Build on curiosity and experience, adapting resources so every child can participate.

Curriculum strands

Plants & Animals	Body & Senses	Materials & Change	Forces & Movement	Seasons & Environments	Scientific Enquiry
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Key vocabulary is indicative rather than exhaustive. Adults should revisit familiar words, model new language in context and encourage children to describe what they notice, compare, predict and find out.



EYFS Science Curriculum Map

Themes, scientific opportunities and progression emphasis

How the map should be used

Half-termly themes follow the supplied Science overview. Examples extend the original content to show practical scientific opportunities. Retain flexibility for children's interests and revisit observation, living things, seasonal change and enquiry throughout the year.

Nursery

Half term	Theme	Core science experiences	Progression emphasis	Links to strands
Autumn 1	What makes me special?	Use senses to explore harvest produce and natural materials; describe what can be seen, heard, smelt, touched and safely tasted. Link observations to Owl Babies and family experiences.	Sensory exploration; naming body parts and senses; noticing and describing features.	Body; Senses; Enquiry
Autumn 2	What do I celebrate?	Notice autumn changes outdoors; collect and compare leaves. Use Bonfire Night and Diwali as contexts for light and dark, warmth and fire safety with adult guidance.	Observing seasonal change; comparing collections; describing what is noticed.	Seasons; Materials; Enquiry
Spring 1	Can you tell me a tale?	Explore building materials through stories; compare textures and strength. Notice how materials change when bent, stretched or wet; talk about things that have changed over time.	Exploring properties; trying things out; using words to compare materials and changes.	Materials; Change; Enquiry
Spring 2	What do you see on the farm?	Observe farm animals and their young; discuss growth and care. Plant a bean, water it and watch it grow; notice spring changes and explore simple plant and animal life cycles.	Caring for living things; observing growth over time; sequencing simple changes.	Plants; Animals; Seasons
Summer 1	Who are our helping heroes?	Find out how a dentist helps care for teeth. Explore how familiar equipment works through role play and visitors; investigate pushing, pulling and moving objects.	Asking questions; making connections to everyday life; noticing forces they can feel.	Body; Forces; Enquiry
Summer 2	Where shall we sail?	Explore travel and movement; push and pull toy vehicles. Investigate which objects float or sink; try different materials for a small boat and talk about what happens.	Exploring movement; comparing results; beginning to make and check predictions.	Forces; Materials; Enquiry



Reception Science Curriculum Map

Themes, scientific opportunities and progression emphasis

Reception progression

Reception revisits Nursery experiences through closer observation, comparison and explanation. Themes retain the supplied overview; additional scientific examples develop its broader contexts. Seasonal observations, plant care and opportunities to ask and investigate questions continue across the year.

Reception

Half term	Theme	Core science experiences	Progression emphasis	Links to strands
Autumn 1	What are my superpowers?	Explore senses and observe body features; describe what can be seen, heard and felt outdoors. Connect familiar people and careers to caring for bodies and investigating the world.	More detailed observation; using senses purposefully; asking relevant questions.	Body; Senses; Enquiry
Autumn 2	Where will my imagination take me?	Use stories and non-fiction to explore natural environments in this country and others. Compare weather, plants and animals; distinguish imagined settings from observations and information.	Describing similarities and differences; using books to find out; recognising contrasting places.	Environments; Animals; Enquiry
Spring 1	What happens in our world?	Observe seasonal weather and changes outdoors. Compare the local natural world with a contrasting environment; investigate ice melting and water freezing through supervised experiences.	Comparing environments; observing change over time; describing changes in water.	Seasons; Environments; Change
Spring 2	Do I want to be a knight?	Use past and present objects as a context to compare wood, metal, fabric and stone. Explore properties, ramps and movement; choose materials for a model and explain findings.	Selecting materials for properties; comparing what happens; giving reasons from observations.	Materials; Forces; Enquiry
Summer 1	Where do animals live?	Observe and draw plants and animals; explore local habitats and compare with contrasting environments. Revisit plant and animal life cycles, growth, needs and care for living things.	Detailed observations; explaining simple needs; sequencing growth and comparing habitats.	Plants; Animals; Environments
Summer 2	Do I want to be a pirate?	Compare coast and local environments. Explore floating, sinking and changing materials; predict, test and adapt model boats. Describe changes such as ice melting using direct observations.	Explaining results; revisiting predictions; applying knowledge of materials and change.	Materials; Change; Enquiry



EYFS Science Progression at a Glance

Concise progression from Nursery to Reception and readiness for Year 1

Progression focus

This overview develops the supplied objectives into a sequence of knowledge, skills and vocabulary. The Natural World is the main focus, supported by communication and enquiry. These teaching statements support transition; they are not an additional statutory assessment checklist.

Area	Nursery	Reception	End of Reception / Year 1 readiness	Key vocabulary
Plants & animals	Plants seeds and cares for plants. Notices animals and key features of simple life cycles.	Observes and draws plants and animals; describes growth, simple life cycles and care needs.	Describes observed features and changes; shows care for living things and explains simple needs.	plant, seed, root, leaf, grow, animal, life cycle
Body & senses	Uses senses to explore; names familiar body parts and describes sensations.	Uses senses purposefully and gives more detailed descriptions of what is seen, heard and felt.	Uses observation to describe and compare; connects senses with the relevant body parts.	body, eye, ear, nose, tongue, skin, senses
Materials & change	Explores and groups materials by properties; talks about differences and changes.	Compares properties; investigates changes such as melting and freezing and describes results.	Explains simple similarities, differences and changes using first-hand observations.	material, hard, soft, bend, water, ice, melt, freeze
Forces & movement	Explores how things work and talks about pushes and pulls they can feel.	Investigates movement, ramps, floating and sinking; predicts and compares what happens.	Describes how objects move or behave; uses observations to suggest what to try next.	push, pull, roll, slide, ramp, float, sink
Seasons & environments	Notices outdoor changes and begins to respect and care for the natural world.	Describes effects of changing seasons and compares local and contrasting natural environments.	Describes seasonal changes and similarities and differences between environments.	season, weather, autumn, winter, spring, summer, habitat
Observing & comparing	Looks closely, explores collections and groups objects by a noticeable feature.	Compares features, notices patterns and observes change over time; records through drawings or talk.	Observes closely, sorts with a reason and uses drawings or simple records to share findings.	observe, same, different, group, compare, change
Asking & explaining	Asks questions, tries things out and describes what happens with adult support.	Suggests predictions, explores questions and uses observations or information to explain findings.	Asks questions, makes a simple prediction and explains what happened using developing vocabulary.	question, predict, test, notice, because, find out

Implementation note: Revisit learning through play, guided enquiry and outdoor experiences. Progress is shown through closer observation, more precise language, purposeful comparison and explanations grounded in experience.



Using the EYFS Progression Document

Planning, provision, assessment and transition

Planning from the progression

1 CHECK PRIOR EXPERIENCE Identify familiar objects, environments, vocabulary and questions children already have.	2 MODEL THE NEW STEP Demonstrate close observation or a simple comparison, then allow time to explore.	3 PLAN FOR PROVISION Offer natural collections, water play, ramps, planting and repeated outdoor visits.
4 ASSESS PROCESS Notice questions, observations, comparisons and explanations across everyday play.	5 BUILD LANGUAGE Model precise words and encourage children to explain what they noticed and found out.	6 SUPPORT INDEPENDENCE Adapt tools and routines so children can observe, investigate and record confidently.

What progression should look like in children's learning

KNOW MORE Recalls features, properties and changes.	DO MORE Observes and compares more closely.	CHOOSE MORE Selects resources to explore a question.	EXPLAIN MORE Uses observations to give reasons.	IMPROVE MORE Revisits ideas after trying them out.
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Suggested evidence for assessment and subject leadership

PUPIL VOICE Can children describe what they noticed, compared and found out?	PROCESS & OUTCOMES Do drawings, talk and observations show increasingly detailed understanding?	PROVISION & TEACHING Are enquiry, vocabulary and safe practical routines modelled and revisited?	TRANSITION Are strengths, experiences and next steps shared to support Year 1 learning?
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End-of-Reception readiness for Year 1 Science

LIVING THINGS Observes plants and animals, describes growth and explains simple care needs.	MATERIALS & CHANGE Compares properties and describes changes through practical exploration.	SEASONS & ENVIRONMENTS Describes seasonal changes and compares familiar and contrasting environments.
OBSERVATION & RECORDING Looks closely and shares findings through drawing, talk and simple records.	SCIENTIFIC LANGUAGE Asks questions, predicts, compares and explains what happened.	CURIOSITY & INDEPENDENCE Chooses resources, tries ideas and cares for living things and surroundings.

Use the supplied enquiry approaches: observing over time; identifying, classifying and grouping; pattern seeking; using secondary sources; and simple comparative testing. Build foundations for fair testing through adult-supported comparisons.