Discoverer Pathway
SCIENCE CURRICULUM

Baskerville School

Our Science curriculum is supported by White Rose SCIENCE

Exploring • Discovering • Understanding the World Around Us

Respect | Independence | Resilience | Aspiration | Hope | Kindness

Inspiring curiosity, building knowledge and understanding the world around us through exploration and discovery.



Building understanding through exploration | Encouraging curiosity | Preparing for life

Curriculum Intent

The Discoverer Science Curriculum provides a rich, engaging and carefully sequenced introduction to scientific learning, designed specifically for pupils following the Discoverer pathway. Rooted in the White Rose Science programme and aligned with the National Curriculum, it develops secure scientific knowledge whilst recognising the diverse needs of our learners.

Our curriculum follows a spiral approach, allowing pupils to revisit key scientific concepts and vocabulary through meaningful, hands-on experiences. Each revisit deepens understanding, strengthens recall and builds confidence, ensuring knowledge and skills develop progressively over time. Scientific enquiry is embedded throughout, encouraging pupils to observe, question, explore and communicate their discoveries in increasingly independent ways.

Learning is underpinned by strong SEND pedagogy, with carefully scaffolded teaching, explicit vocabulary instruction, practical investigations and continuous opportunities for repetition and retrieval. Lessons are highly multi-sensory and accessible, making use of real objects, outdoor learning, sensory exploration, visual supports and communication strategies to ensure every learner can successfully engage with science.

Throughout the curriculum, pupils develop an understanding of themselves and the world around them while building the communication, problem-solving, independence and curiosity needed for everyday life. By connecting scientific learning to real-life experiences, the Discoverer Science Curriculum equips pupils with the knowledge, skills and confidence that will support them as they move beyond Baskerville School, preparing them for lifelong learning, greater independence and active participation in their communities.

Discoverer Pathway Science

Scientific Knowledge and Understanding

Within the Discoverer Pathway, science begins by helping pupils develop an awareness of themselves and the world around them through meaningful, multi-sensory experiences. Learning is carefully sequenced so that pupils revisit familiar concepts through a **spiral curriculum**, allowing knowledge, communication and understanding to grow over time.

Our curriculum is built around practical exploration, observation and real-life experiences, enabling pupils to make sense of the environments, people, objects and natural phenomena they encounter every day. Concepts are introduced through repeated sensory experiences, supported by communication, modelling and structured play.

Pupils build their scientific understanding by:

- Developing awareness of themselves, others and the world around them.
- Exploring natural materials, living things and everyday objects through sensory experiences.
- Recognising familiar patterns, routines and changes in their environment.
- Developing understanding through repetition, play and first-hand experiences.
- Learning and using increasingly meaningful scientific vocabulary through symbols, objects, signing and spoken language.
- Making simple connections between experiences and what they observe.

As pupils revisit learning across the curriculum, their knowledge becomes increasingly secure, meaningful and connected.

Working Scientifically

Working scientifically is woven throughout every unit of learning and is never taught in isolation. Pupils develop scientific thinking by actively exploring, investigating and responding to the world around them using all of their senses.

Teaching focuses on developing curiosity, engagement and independence through practical experiences, enabling pupils to become confident explorers.

Throughout the Discoverer Pathway pupils are supported to:

- Notice changes in people, objects and environments.
- Explore using sight, touch, hearing, smell and, where appropriate, taste.
- Investigate cause and effect through play and exploration.
- Make choices and communicate preferences.
- Compare familiar objects and materials.
- Observe living things and seasonal change.
- Ask and answer simple questions using their preferred method of communication.
- Share discoveries through objects, symbols, photographs, gestures, signing or speech.

Working scientifically is closely linked to the Engagement Model, supporting pupils' development of exploration, persistence, anticipation, initiation and investigation.

Science in Everyday Life

Science is made meaningful by connecting learning to pupils' own lives, interests and experiences. Every unit includes opportunities to investigate real-world science through practical activities, outdoor learning and everyday routines.

Science in action includes:

Exploring the Natural World

- Caring for plants and animals.
- Seasonal changes and weather.
- Outdoor learning and Forest School experiences.
- Growing plants and observing change over time.
- Exploring water, light, sound and different materials.

People Who Help Us

- Doctors, nurses, dentists and veterinarians.
- Gardeners, farmers and conservation workers.
- Scientists who help us understand the world.

Science in Daily Life

- Healthy eating and caring for our bodies.
- Looking after ourselves and staying safe.

- Recycling and caring for the environment.
- Using everyday materials and technology.
- Exploring how science supports our homes, school and local community.

Learning Together

Science encourages pupils to:

- Work alongside adults and peers.
- Develop communication through shared exploration.
- Build confidence to investigate independently.
- Celebrate curiosity and discovery.
- Understand that everyone can be a scientist through exploring, questioning and investigating.

Curriculum Links

White Rose Science
https://whiteroseeducation.com/

STEM Learning
https://www.stem.org.uk/

Discoverer Pathway SCIENCE CURRICULUM

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DISCOVERER PATHWAY – INFORMAL

WEEKS	1	2	3	4	5	6	7	8	9	10	11	12	13	14
AUTUMN		Me and my small world (R)										Changes in Winter (R)		
SPRING		Senses (R)										Watch it grow (R)		
SUMMER		Let's go outside (R)										consolidation		

EXPLORE
Hands-on experiences that spark curiosity.

DISCOVER
Making sense of the world around us.

UNDERSTAND
Building early knowledge through exploration.

DEVELOP
Communication, independence and confidence.

PREPARE FOR LIFE
Developing a love for science that lasts a lifetime.

Nurturing curiosity today. Inspiring scientists for tomorrow.

Discoverer Pathway
SCIENCE CURRICULUM

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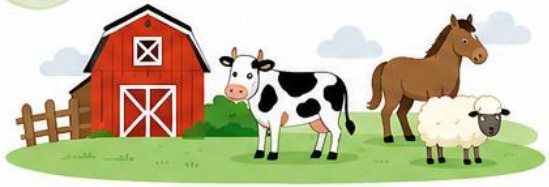
KEY VOCABULARY

Me and my small world



Animal, farm, horse, pig, cow, sheep, body, head, arms, hands, mouth, teeth, legs, feet, field, sty, barn, stable, coop

Senses



smell, touch, see, hear, taste, nose, skin, eyes, ears, mouth, tongue, hands, face, head, feel, sound, sight, sense

Let's go outside



mud, grass, water, ice, tree, leaf, sticky, rough, smooth, wet, soft, hard, cold, dry, rainy, cloudy, sunny, windy, snowy, weather, autumn

OUTDOOR WORDS



Building understanding through exploration • Encouraging curiosity • Preparing for life

Discoverer Pathway
SCIENCE CURRICULUM
Semi-formal

• Exploring • Discovering • Understanding the World Around Us



DISCOVERER PATHWAY – SEMI-FORMAL

Weeks	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Autumn	Senses (R)									Changes in Winter (R)				
Spring	Animal detectives (R)					Pushes and Pulls (R)					Seasonal Changes			
Summer	Human Body (Y1)										Seasonal Changes			

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