Rutherford House School

The Uniqueness of Each Subject

Curriculum rationale

At Rutherford House School, we recognise that each subject is a distinct discipline with its own body of knowledge, vocabulary, concepts, methods and ways of thinking.

Our curriculum is therefore designed so that pupils understand what each subject is about, how knowledge is developed within that subject and how to think and work like a mathematician, scientist, historian, geographer, artist, musician, linguist or reader/writer.

Our curriculum is coherent and progressive from Reception to Year 6. We use carefully selected schemes and resources to support this:

- **White Rose Maths** provides the structure for our mathematics curriculum, with a focus on small steps, mastery, fluency, reasoning and problem solving.
- **Primary Knowledge Curriculum (PKC)** provides the foundation for much of our wider curriculum, with carefully sequenced subject knowledge, subject rationales, unit rationales, vocabulary and assessment materials. PKC explicitly recognises the unique identity of individual academic disciplines.
- **Read Write Inc. (RWI)** provides our systematic approach to early reading and phonics, ensuring that pupils develop secure phonemic knowledge, decoding and fluency. Rutherford House teaches RWI phonics in EYFS and KS1, with additional support where required.
- **Jigsaw** provides our whole-school approach to Personal, Social, Health and Economic (PSHE) education. Its carefully sequenced programme develops pupils' understanding of themselves, their relationships, health, wellbeing and responsibilities, alongside emotional literacy, social skills and mindfulness.

The schemes provide structure and progression, but they do not replace teacher expertise or the school's curriculum thinking. Teachers adapt delivery to pupils' needs while preserving the essential knowledge, concepts and disciplinary thinking of each subject.

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1. English

What makes English unique?

English is fundamentally about communication through language. It enables pupils to read, write, speak and listen with increasing precision, fluency and sophistication.

Unlike other subjects, English develops pupils' ability to understand and manipulate language itself. Literature provides opportunities to encounter ideas, experiences, cultures and perspectives beyond pupils' own lives.

At Rutherford House

Our English curriculum is built around high-quality literature and non-fiction. Pupils learn to:

- read fluently and widely;
- develop vocabulary and comprehension;
- understand grammar and linguistic conventions;
- write for different purposes and audiences;
- make deliberate choices about language and structure;
- speak and listen effectively;
- respond critically to what they read.

Our explore, craft, create approach enables pupils to study how writers create meaning before applying this knowledge independently.

The disciplinary identity of English

Pupils learn not simply about texts but how readers and writers think.

They learn to ask:

- What is the writer trying to achieve?
- How has language been used?
- How does structure affect meaning?
- How might this be interpreted differently?
- How can I make deliberate choices as a writer?

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2. Mathematics

What makes mathematics unique?

Mathematics is a discipline of relationships, patterns, structures, precision and logical reasoning.

Mathematical learning is cumulative: secure understanding of foundational concepts is necessary for pupils to access increasingly complex ideas.

At Rutherford House

We follow White Rose Maths, using its small-step, mastery-based approach. Concepts are carefully sequenced and pupils work towards secure understanding rather than simply moving rapidly through content. White Rose emphasises depth, fluency, reasoning and problem solving.

We use:

- concrete resources;
- pictorial representations;
- abstract notation;
- mathematical vocabulary;
- deliberate practice;
- reasoning;
- problem solving;
- opportunities to identify patterns and make connections.

The disciplinary identity of mathematics

Mathematical thinking is characterised by:

Fluency → Reasoning → Problem solving → Generalisation

Pupils learn to explain why something works, identify relationships, spot patterns, test ideas and make generalisations.

This means that a mathematics lesson is not simply about getting the correct answer. It is about developing mathematical understanding and mathematical thinking.

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3. Science

What makes science unique?

Science enables pupils to develop knowledge about the natural and physical world through observation, evidence, enquiry and explanation.

Science is distinctive because pupils need both:

- **substantive knowledge** – what science tells us about the world;
- **disciplinary knowledge** – how scientific knowledge is generated and tested.

At Rutherford House

Through the PKC curriculum, pupils build scientific knowledge progressively while developing their ability to work scientifically. PKC explicitly sequences knowledge and revisits key concepts over time.

Pupils learn to:

- observe carefully;
- ask scientific questions;
- predict;
- plan investigations;

- identify variables;
- gather evidence;
- interpret results;
- identify patterns;
- draw conclusions;
- evaluate evidence.

The disciplinary identity of science

Pupils increasingly understand that scientists do not simply learn facts. They use evidence to develop, test and refine explanations about the world.

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4. History

What makes history unique?

History is the disciplined study of the past and how we know about it.

It is therefore different from simply learning a sequence of historical facts. Pupils need to understand chronology, causation, consequence, change and continuity, significance and interpretation.

At Rutherford House

Through PKC, pupils encounter a carefully sequenced body of historical knowledge. This gives them the chronological framework needed to understand how societies developed and changed.

Pupils learn to:

- establish chronology;
- understand historical vocabulary;
- identify cause and consequence;
- recognise change and continuity;
- consider significance;
- use evidence;
- distinguish between evidence and interpretation;

- understand that accounts of the past can differ.

The disciplinary identity of history

A historian asks:

- What happened?
- Why did it happen?
- What changed?
- What stayed the same?
- What evidence do we have?
- How reliable is that evidence?
- Why might historians interpret this differently?

The uniqueness of history therefore lies in pupils learning to construct and evaluate interpretations of the past from evidence.

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5. Geography

What makes geography unique?

Geography is the study of place, space, environments and the relationships between people and the physical and human world.

It connects knowledge of locations with geographical concepts and processes.

At Rutherford House

Pupils develop an increasingly sophisticated understanding of:

- place;
- location;
- physical geography;
- human geography;
- environments;
- spatial patterns;

- interdependence;
- geographical change.

They develop geographical vocabulary and learn to use maps, data, diagrams and geographical evidence. Each unit is revisited in subsequent years which means pupils will consolidate prior learning and master new knowledge which builds on what they already know.

The disciplinary identity of geography

Geographers ask:

- Where is it?
- What is it like?
- Why is it there?
- How does it interact with other places?
- How and why is it changing?
- What is the significance?

The subject therefore develops pupils' ability to think spatially and understand relationships between people, places and environments.

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6. Art

What makes art unique?

Art is concerned with visual expression, creativity, imagination, communication and the development of artistic judgement.

Pupils need both knowledge of artists, movements, materials and techniques and the ability to develop their own artistic responses.

At Rutherford House

Pupils develop knowledge and skills in areas such as:

- drawing;

- painting;
- sculpture;
- colour;
- texture;
- pattern;
- form;
- composition;
- materials and techniques.

They study the work of artists and use this knowledge to inform their own creative decisions.

The disciplinary identity of art

Pupils learn to:

observe → experiment → develop → refine → evaluate

The important distinction is that pupils are not simply producing attractive artwork. They are learning to make intentional artistic decisions and communicate ideas visually.

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7. Design and Technology

What makes DT unique?

Design and Technology is concerned with designing, making and evaluating solutions to practical problems.

It combines creativity with technical knowledge and practical application.

Pupils learn to:

- investigate;
- design;
- plan;
- select materials;

- make;
- test;
- evaluate;
- improve.

The disciplinary identity of DT

A designer asks:

- What problem am I solving?
- Who is the product for?
- What constraints do I have?
- Which materials or mechanisms are appropriate?
- How can I improve my design?

The subject therefore develops pupils as problem-solvers, designers and makers.

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8. Computing

What makes computing unique?

Computing is fundamentally about computational thinking, digital systems, information and programming.

It is more than learning how to use technology.

Pupils develop an understanding of how computers and digital systems work and how algorithms can be used to solve problems.

The disciplinary identity of computing

Pupils learn to:

- decompose problems;
- identify patterns;
- develop algorithms;

- write and debug programs;
- understand data;
- use digital systems;
- evaluate digital content;
- understand online safety and responsible digital behaviour.

Computing therefore develops pupils' ability to think algorithmically and computationally, rather than simply consume technology.

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9. Music

What makes music unique?

Music is a discipline of sound, performance, composition, listening and expression.

Pupils develop musical understanding through practical experience alongside knowledge of musical vocabulary, notation, genres, composers and traditions.

The disciplinary identity of music

Pupils learn to:

- listen critically;
- perform;
- compose;
- improvise;
- read and use musical notation;
- recognise musical elements;
- describe and evaluate music.

Music is therefore experienced through doing, listening and creating, rather than solely through theoretical knowledge.

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10. Modern Foreign Languages

What makes languages unique?

Language learning is unique because pupils learn to understand and communicate meaning through a new linguistic system. At Rutherford House School, pupils begin learning Spanish from Reception, developing the knowledge and confidence to listen, speak, read and write for meaningful purposes as they progress through the school.

Introducing Spanish from Reception allows children to experience another language at an age when they are naturally curious, playful and willing to experiment with new sounds. Through songs, actions, games, repetition, stories and conversation, pupils become accustomed to hearing and using Spanish before self-consciousness about speaking another language can become a barrier. This helps them develop confidence, enjoyment and a positive attitude towards language learning from the very beginning.

Learning another language requires pupils to make connections between sounds, words, grammatical structures and meaning. They learn how Spanish works, noticing patterns and differences between Spanish and English, and gradually use this knowledge with increasing independence.

The disciplinary identity of MFL

Pupils learn to think and work like linguists by developing:

- phonics and pronunciation – recognising and producing the characteristic sounds of Spanish and understanding how sounds relate to written language;
- vocabulary – building an increasingly rich and reusable bank of words and phrases;

- grammar – recognising patterns and understanding how words and sentences are constructed, including gender, number, articles, adjective agreement and verb forms;
- listening – identifying familiar and increasingly unfamiliar language and extracting meaning from spoken Spanish;
- speaking – recalling vocabulary, responding to questions and gradually combining known language to communicate their own ideas;
- reading – using phonics, vocabulary, grammatical knowledge, cognates and context to understand written Spanish, including authentic and adapted texts;
- writing – progressing from words and familiar phrases to increasingly independent sentences and short texts;
- language-learning strategies – identifying patterns, making connections, using prior knowledge and applying known language in new contexts;
- cultural and intercultural understanding – learning about Spanish-speaking communities while recognising, valuing and celebrating both similarities and differences between languages, cultures and ways of life.

The distinctive feature of Modern Foreign Languages is the way these elements work together. Pupils do not simply memorise isolated vocabulary: they gradually develop an understanding of how the language works and learn to manipulate familiar vocabulary and structures to understand and create new meaning.

At Rutherford House, Spanish learning is carefully sequenced from Reception to Year 6 so that vocabulary, phonics and grammatical knowledge are regularly revisited and extended. Pupils encounter language first through listening and speaking and increasingly apply their

knowledge through reading and writing. Regular exposure to books, stories and authentic language supports comprehension, curiosity and independence. Cultural celebrations, enrichment opportunities and direct links with pupils in Spain ensure that children experience language as a living means of communication, while developing the confidence, curiosity and intercultural understanding needed to see themselves as part of a wider multilingual and global community.

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11. Physical Education

What makes PE unique?

PE develops pupils' physical competence, movement knowledge, teamwork, tactical understanding and healthy active lifestyles.

It is a practical discipline in which pupils learn through physical performance as well as explanation and reflection.

The disciplinary identity of PE

Pupils develop:

- fundamental movement skills;
- coordination;
- balance;
- control;
- tactical awareness;
- spatial awareness;
- teamwork;
- resilience;
- understanding of health and fitness.

Pupils therefore learn not simply to *take part* in sport, but to understand movement, improve performance and make informed decisions during physical activity.

12. Religious Education

What makes RE unique?

RE enables pupils to explore religious and non-religious worldviews, beliefs, practices, values and lived experiences. It is distinctive because it engages pupils with questions of meaning, belief, identity, ethics and human experience.

At Rutherford House

We use the agreed Wandsworth syllabus to provide pupils with a broad and balanced understanding of religious and non-religious worldviews. Pupils develop their understanding of different religions and worldviews and explore how beliefs are expressed through practices, values and lived experiences.

Where appropriate, we visit local places of worship to give pupils meaningful, real-world experiences that complement their classroom learning. Pupils make thoughtful comparisons between different belief systems, identifying both similarities and differences, while recognising the diversity that exists within religious and non-religious worldviews.

The disciplinary identity of RE

Through RE, pupils develop the knowledge and skills to:

- understand religious and non-religious beliefs, practices and ways of life;
- use appropriate religious and subject-specific vocabulary;
- interpret and respond to sources, including religious texts and other forms of evidence;
- compare beliefs, practices and perspectives;
- ask and explore philosophical, ethical and theological questions;

- recognise diversity within and between religious and non-religious worldviews;
- reflect on their own ideas and experiences while respecting the perspectives of others.

RE therefore combines knowledge and understanding with enquiry, interpretation, comparison and reflection. Pupils are not simply taught facts about religions; they are supported to use their knowledge to explore important questions about belief, meaning, values and human experience.

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13. PSHE

What makes PSHE unique?

PSHE is concerned with pupils' personal development, relationships, health, wellbeing and preparation for life beyond school.

It is distinctive because the knowledge pupils acquire has a direct relationship with their developing lives, choices, responsibilities and interactions with others. Pupils learn to apply their understanding to real-life situations, developing the confidence and judgement to make informed decisions.

At Rutherford House

We follow the Jigsaw curriculum, a whole-school approach to PSHE which brings together personal, social, health and economic education, emotional literacy, social skills and mindfulness.

The programme is organised into six progressive themes (known as Puzzles):

- Being Me in My World
- Celebrating Difference
- Dreams and Goals
- Healthy Me

- Relationships
- Changing Me

Through these themes, pupils develop their understanding of themselves and others, explore healthy relationships, learn how to look after their physical and mental health, and consider their rights and responsibilities. They also develop an understanding of how to keep themselves safe, manage emotions, overcome challenges and make positive choices.

The curriculum is carefully sequenced so that key knowledge and understanding are revisited and developed as pupils move through the school. Mindfulness and emotional literacy are woven throughout, supporting pupils to recognise and manage their feelings and develop positive relationships.

The disciplinary identity of PSHE

Pupils develop the knowledge and skills to:

- understand themselves, their emotions and their identities;
- build and maintain healthy relationships;
- recognise and respect similarities and differences;
- understand physical and mental health and wellbeing;
- recognise risks and understand how to keep themselves safe;
- make informed and responsible decisions;
- understand their rights, responsibilities and place in wider society;
- manage change, challenges and new experiences.

PSHE therefore enables pupils not simply to acquire knowledge about health, relationships and society, but to apply this understanding to their own lives, developing the confidence, resilience and judgement to make positive choices and contribute responsibly to the world around them.

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14. Philosophy

What makes philosophy unique?

Philosophy develops pupils' ability to question assumptions, reason carefully, consider different perspectives and construct arguments.

It is not simply about having opinions.

Pupils learn to:

- ask meaningful questions;
- provide reasons;
- distinguish reasons from assertions;
- challenge ideas respectfully;
- consider alternative viewpoints;
- identify assumptions;
- change their minds when presented with convincing reasoning.

The disciplinary identity

A philosophical thinker asks:

- What do I mean?
- What reasons support this?
- What assumptions am I making?
- Could there be another perspective?
- What would change my mind?

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15. Phonics

What makes early reading unique?

At Rutherford House School, we recognise that learning to read is a fundamental entitlement for every child. Early reading is distinctive because pupils must first develop the knowledge and automaticity required to decode written language before they can independently access the full range of texts and learning across the curriculum.

Our approach combines systematic phonics teaching with rich opportunities to develop vocabulary, comprehension, fluency and a love of reading.

We use Read Write Inc. (RWI) as our systematic synthetic phonics programme. RWI provides a structured progression in which children learn the alphabetic code, develop accurate blending and segmenting, and apply their developing phonics knowledge directly to reading and writing. The programme is designed so that phonics, reading and writing reinforce one another.

The disciplinary identity of early reading

The distinctive feature of early reading is the progression from learning the code → applying the code → developing automaticity → reading fluently → comprehending increasingly complex texts.

The ultimate purpose of phonics is therefore not simply for children to know their sounds. It is to enable them to become accurate, fluent and increasingly independent readers who can devote their attention to understanding, discussing and enjoying what they read.

As pupils become secure in decoding, the emphasis increasingly broadens towards fluency, vocabulary, comprehension and reading widely for pleasure and information. This connects directly with Rutherford House's wider English intent that pupils should become fluent, wide-ranging readers who can read both for pleasure and information.

The common thread across the curriculum

Although each subject has its own identity, the curriculum at Rutherford House has common features.

In every subject, we aim to ensure pupils:

- **Know more** – through carefully selected substantive knowledge.
- **Remember more** – through retrieval, revisiting and connections.
- **Do more** – through subject-specific application.
- **Think more deeply** – through increasingly sophisticated disciplinary thinking.
- **Use increasingly precise vocabulary** – enabling them to communicate subject-specific ideas.
- **Build on prior learning** – with new knowledge connected to what has already been taught.
- **Become increasingly independent** – as their subject knowledge and confidence grow.