



COMPUTING POLICY 2023-2024

Computing Subject Leader: Miss J Scarfe

“The computer was born to solve problems that did not exist before.”

- Bill Gates.

Curriculum Intent Statement

At Owston Park Primary Academy, we provide a bespoke, knowledge-rich curriculum with the purpose of increasing the quantity and quality of what our children know, enabling them to develop a wealth of knowledge and cultural capital to draw upon and build upon throughout their lives. We believe that children need to see how what they are learning is connected to a body of greater knowledge and that knowledge across those bodies is interchangeable.

Children need to understand about concepts, and how these concepts inter-relate. Curriculum literacy requires understanding of the meaning, use and justification of curriculum concepts through respecting individual subject traditions. We have created a curriculum based on distributed practise and regular testing which provides coherence and helps knowledge to move into long-term memory, to become declarative and procedural. Through its structure, defined by details not by titles, children are supported to navigate their way through a meaningful, inter-related curriculum rather than one which is random, based on tenuous skills progressions. Our curriculum is about addressing social injustice so that our children leave us with a love of locality, happiness, dignity and strong emotional literacy. They will leave us with the keys to unlock the powers of the powerful. The national curriculum ‘provides children with an introduction to essential knowledge that they need to be educated citizens.’ It introduces pupils to the best that has been thought, said and done and helps engender and appreciation of human creativity and achievement. At Owston Park we are keen also to emphasise to children the way in which ‘the best that has been thought and said and done’ impacts upon their own life, today, living in North Doncaster. We have a clear idea of what knowledge, words and concepts we want children to learn in each subject. Crucially we also know where the ‘horizontal’ and ‘vertical’ links are. Vertical links are those links WITHIN a subject year to year (the concept of ‘empire’ for example, or ‘warfare’ or ‘colonisation’). Horizontal links are those links ACROSS subjects within a year group (such as linking the study of Romans with a study of Christianity, the concept of settlements, the design of villages, the concept of leadership, Roman artwork etc). The impact of our curriculum will be seen not only in measurable attainment and progress, but in that Owston Park Primary Academy’s students are confident, enthusiastic and curious young people, who are equipped with the knowledge and skills they need to live a purposeful and fulfilling life.

Curriculum themes

<p style="text-align: center;">Knowledge Rich</p>  <p>The basis of our curriculum is powerful knowledge – by teaching ‘the best that has been thought, said and done’, we open up our children’s minds, ignite their curiosity and engender an appreciation of human creativity and achievement.</p> <p>Key knowledge for each subject has been carefully considered by subject leaders alongside class teachers, and is codified in our bespoke Knowledge Organisers.</p>	<p style="text-align: center;">Evidence based</p>  <p>Our cumulative approach is rooted in neuroscience and educational research. We use regular retrieval practise to help to commit key knowledge to children’s long term memory. ‘Memory is the residue of thought’ – the more we think about something, the more likely we are to remember it.</p> <p>Our assessment reflects this, measuring the knowledge which children retain, so we can be confident that they’ve truly learnt it.</p>	<p style="text-align: center;">Cumulative and coherently sequenced</p>  <p>Children learn explicitly planned interconnected webs of carefully sequenced and discretely taught conceptual knowledge, which are revisited in subsequent contexts enabling children to build up networks of connected information as schema.</p> <p>Discretely teaching conceptual knowledge means it becomes easier for children to add new information to existing schema, as new knowledge ‘sticks’ to prior knowledge.</p>	<p style="text-align: center;">Depth for all</p>  <p>All children receive quality first teaching. Content is not differentiated, so no knowledge is out of bounds for any child, because every student has an entitlement to access powerful knowledge which opens the door to a world beyond our own individual experiences.</p> <p>New information is introduced in small steps, with lots of modelling and scaffolding, enabling children to build confidence. The culture at Owston Park celebrates mistakes and uses them as a teaching point.</p>
<p style="text-align: center;">Vocabulary Rich</p>  <p>Vocabulary is explicitly planned for and taught within each unit. Vocabulary is the key to unlocking and understanding the knowledge.</p> <p>Discussion and structured learning conversations are a key feature of wider curriculum lessons.</p>	<p style="text-align: center;">Enrichment</p>  <p>Our topics provide the opportunity to bridge our children’s cultural capital deficit through enrichment – educational visits, visitors into school and topic launches.</p> <p>The substance of the knowledge taught inspires awe and wonder.</p>	<p style="text-align: center;">Community and Identity</p>  <p>Our curriculum is built on meaningful local links to encourage our children to celebrate our rich heritage.</p> <p>Parents are invited in at least once per term for topic landings to celebrate children’s learning.</p>	<p style="text-align: center;">Core skills developed</p>  <p>Topics are underpinned by a key text which draws upon and builds schema to help contextualise the key knowledge which children have learnt.</p> <p>Opportunities for extended writing are built into the curriculum. There are high expectations of core skills across the curriculum.</p>

Computing Intent, Implementation and Impact

Intent	Implementation	Impact
<ul style="list-style-type: none"> To equip young people with the knowledge, skills and understanding they need to thrive in the digital world of today and the future. 	<ul style="list-style-type: none"> To provide our pupils with lessons that solely focus on the key skills and knowledge of the computing curriculum e.g. a lesson on debugging, using different fonts in word. As our pupils progress to upper key stage 2, use the skills and knowledge gained to complete a project based on, either, their current topic or an experience such as Y6 prom. This is to ensure that the children get the chance to use the skills gained in a real life and relevant context. To ensure our pupils get exposure to what computing looks like in the real world and how it is used in the workforce in Britain today. To ensure they are prepared for secondary school and life beyond school e.g. employment through experiences like careers week. Key skills taught early on in their school career e.g. logging on, mouse control. 	<ul style="list-style-type: none"> Children will have the relevant skills and knowledge for secondary school and life beyond school. Children can use computing skills in a range of contexts. Children can use and understand computing vocabulary.
<ul style="list-style-type: none"> To develop coherent knowledge and understanding of computer science and information technology to ensure our pupils are digitally literate. 	<ul style="list-style-type: none"> To ensure coverage of both of these key concepts each year group spends half a year on each one with aspects of digital literacy built into information technology. E-safety is taught through Gooseberry Planet. Our bespoke 2 year curriculum design has been carefully developed to ensure complete understanding. The first year of the key stage focusses more on teaching and gaining the knowledge and skills and a year consolidating and practising what has been taught. A 2 year cycle ensure complete understanding before moving onto the next skill e.g. teach algorithms in KS1 to ensure they can decompose them in Y4. Use of the scheme Espresso Coding. Vocabulary is explicitly taught in each lesson and built on throughout school. A clearly structured wider curriculum lesson structure. Use of unplugged lessons to teach key concepts and knowledge for coding and programming. 	<ul style="list-style-type: none"> Children will enjoy learning about computing and be excited about the subject content. Children will reach age related expectations in computing. Children will retain relevant knowledge and skills.

<ul style="list-style-type: none"> To prepare children to be safe and secure online and know what to do if they are unsure of something online. 	<ul style="list-style-type: none"> The programme we use at Owston Park is Gooseberry Planet. Lessons are taught from Year 1 to Year 6 every fortnight. Gooseberry Planet provides our pupils with an incremental programme of E-safety lessons, covering a range of situations which the children may encounter online. The lessons are age appropriate. The programme is game based and the children get to use their knowledge to compete against each other. Parents get access to Gooseberry Parent so they can understand and follow their child's progress and work with their child at home. 	<ul style="list-style-type: none"> Children have the knowledge to stay safe online in a range of contexts. Understand where to go if they are unsure about something online. Know what behaviour is appropriate and inappropriate online. Children know how to keep their information secure online.
<ul style="list-style-type: none"> Develop Core skills 	<ul style="list-style-type: none"> The information technology aspect of the computing provides opportunities for children to develop core skills – children are encouraged to use maths skills in creating and interpreting graphs, charts, diagrams and spreadsheets. In English the children are given opportunities to develop their writing by developing and using their skills in a range of software such as Microsoft Word, Publisher and Powerpoint. Reading is developed through using computing in a cross curricular manner e.g. researching a topic in History or Geography. Computing can also provide additional opportunities for development of core skills through its use in project based work. 	<ul style="list-style-type: none"> Children's unplugged computing work reflects the same high expectations of core subject work. Children are proud of their work – this is reflected in their presentation and the quality of the written work in unplugged lessons.
<ul style="list-style-type: none"> To enable all children to receive the same quality of computing education, ensuring that children are supported where support is necessary and that all children are challenged and stretched within their learning. 	<p>In computing, this looks like:</p> <ul style="list-style-type: none"> A clearly designed computing curriculum to match the cultural capital of the local school community. All pupils getting regular access to a range of devices. All pupils being taught, exposed and expected to use the correct computing vocabulary. Common tasks which are open-ended and can have a variety of responses. Setting tasks of increasing difficulty. Not all children complete all tasks, and additional resources are available to scaffold children's learning e.g. instructional videos. Using classroom assistants to support children individually or in groups. Children may be taught in small groups for intervention, and vocabulary or key-information from knowledge organisers may be pre-taught to specific children for a keep up, not catch up approach. Collaborative, group and paired work, which necessitates discussion and practicing of key skills is used, regularly, wherever possible. 	<ul style="list-style-type: none"> A large proportion of children reach age related expectations in computing. SEN children and children working towards year group expectations feel supported and enjoy computing lessons. Data monitoring ensures children are targeted for intervention when not on track. Enrichment opportunities are subsidised for pupil premium and disadvantaged children. Children have access to a range of different devices.

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| | <ul style="list-style-type: none"> • A computing ambassadors program, where children who show a particular aptitude for computing (not necessarily the AD children or boys) are given the chance to stretch their skills further. • A 2 year cycle to ensure lots of opportunities for depth. | |
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THE FOUNDATION STAGE

Even though there isn't an explicit computing statement within the new Development Matters; computing and technology is still an important part of the EYFS curriculum at Owston Park.

Children learn about everyday technology and computing through exploration and play. They explore everyday technology through role play with microwaves, ovens, telephones etc. learning about how they are used and for what purpose; making clear links to home and the outside world. In the science investigation area children explore and investigate how torches and cameras work through first hand experiences, as well as having access to iPads.

The children have access to the IWB to engage with creative and literacy based programs as well as Maths games online. They begin to recognise icons and their functions and how to click and drag using their developing fine motor skills.

TIME ALLOCATION

In order to ensure our curriculum is broad and balanced, we teach every subject each term. We understand that time constraints may mean that lessons do not achieve an equal time allocation on a weekly basis, but on a termly basis Computing should be taught as often as other wider curriculum subjects, and from September 2022 this will be on a fortnightly basis for a 2 hour lesson. This means on average Computing is being taught an hour a week over the course of the year. Computing can also be taught through 'unplugged' activities, where a device isn't needed but key computing skills and knowledge can still be developed. E-safety is taught through Gooseberry Planet on a three week rolling programme with PSHE and Life Skills. Learning within computing is also reinforced through key dates during the year such as Safer Internet Day as well as our aspirations and careers week. During

this time our pupils can focus on careers within computing and research and foster a love of the subject and give them aspirations for the future.

PLANNING AND ASSESSMENT

The planning process at Owston Park Primary begins with the national curriculum and our curriculum drivers, to ensure that the topics we teach include the powerful knowledge – the best that has been thought, said and done – and are enhanced by our locality and our own unique heritage. From these, subject leaders alongside class teachers have worked together to develop knowledge organisers, which ensure that the key, powerful knowledge is being taught rather than just ‘doing’ a subject. The knowledge organisers are then considered alongside the skills progressions and conceptual knowledge maps to create a series of coherently sequenced lessons to map out the learning journey for each topic. For computing, the subject leader has created a two year cycle for each key stage to ensure complete understanding of the key knowledge and practice of key skills. This time frame also allows for greater depth to be reached by our pupils as well as time for interventions and additional practice for those pupils who need.

Our assessment system is based on low-stakes quizzing. Low-stakes quizzing is a regular part of our practice across the curriculum so children are familiar with the format, and are happy to have a go. Teachers build regular retrieval practice into each and every lesson in different forms, and use assessment for learning to deliver instruction tailored to the identified need. Children’s learning journey throughout a topic culminates in an end piece. This is an opportunity for children to showcase their learning. This may then be used as part of the topic landing, e.g. by showcasing their end piece to parents. Formative assessment is an integral and continuous part of the teaching and learning process at Owston Park Primary and much of it is done informally as part of each teacher’s day to day work. Teachers integrate the use of formative assessment strategies such as: effective questioning, clear learning objectives, the use of success criteria, effective feedback and response in their teaching and marking and observing children participating in activities to scaffold and challenge learning. Planning may be annotated and those who need more support can be identified on plans through use of A.F.L. Findings from these types of assessment are used to inform future planning.

MARKING & FEEDBACK

- Marking should always be focussed on the Learning Objective.
- Children are given opportunities to self-assess their learning against the Learning Challenge where possible, using the metacognition colours familiar to them.
- Feedback should perform 3 purposes; ensure children understand what they have done well; ensure children are clear about how to improve; ensure children make visible signs of improvement.
- Marking should always 'close the gap' and give an improvement suggestion; of which there are 4 types
 - o a challenge prompt
 - o a reminder prompt;
 - o a scaffold prompt e.g. a questions or unfinished questions, steps to complete tasks
 - o an example prompt
- Children to have opportunities to self and peer assess their work, when appropriate. This should be recorded.
- When the arrow icon is shown it indicates what the next step for the child will be or action to complete, either as a consolidation activity or an opportunity to extend learning.
- Wherever possible, the checking or marking of work will be done with the child who will be given the opportunity to ask questions and self-correct.

MONITORING AND SUBJECT LEADERSHIP RESPONSIBILITIES

The subject leader's role is to empower colleagues to teach wider curriculum lessons to a high standard and support wider curriculum subject leaders in the following ways. Their role includes leading, managing, monitoring, motivating, training and guiding colleagues.

- Knowing the curriculum requirements of their subject throughout school, and using their knowledge of their subject to create road maps of the learning journey and assist teachers in developing knowledge organisers, ensuring that the content maintains fidelity with the national curriculum.
- Subject leaders monitor medium term plans and work alongside class teachers to ensure that pupils receive full coverage of the National Curriculum.
- Showcasing and raising the profile of their subject throughout school, e.g. through thematic days, displays etc.

- Monitoring their subject through book scrutinies, lesson observations, data analysis and pupil interviews to ensure comprehensive monitoring of wider curriculum subjects and to inform them of the quality of the wider curriculum provision across the school.
- Keeping up to date on current issues; disseminating relevant information and providing training for staff members (either directly or through other professionals).
- Identifying and acting on subject specific development needs of staff members with support from SLT - books are scrutinised by SLT throughout the term with a compliance check completed half termly and feedback is provided.
- Monitoring expectations, provision and attainment across the school and providing feedback to develop practice further in order to raise standards.
- Providing necessary equipment and maintaining it to a high standard, managing the subject budget effectively.

WIDER CURRICULUM NON-NEGOTIABLES

- Topic launches to be an exciting, awe-inspiring event to engage and excite children. The classroom environment should reflect the topic, and classroom entrances should advertise the topic being taught. Key vocabulary should be displayed within the classroom, as should resources which support key knowledge e.g. timelines, diagrams.
- Learning objectives and titles to be present in children's books. The title should contain a context. The learning challenge should be highlighted in the corresponding colour according to the metacognitive level achieved.
- Vocabulary should be explicitly taught within the lesson.
- Presentation expectations in wider curriculum lessons to mirror expectations in core subjects.