What makes me a techie?

Lambley Primary School

Be ready, respectful and resilient

Lambley Primary School: Computing subject audit

Date	1	2	3	4
1 :immediate action needed– add to action plan, 2: underdeveloped, 3: planned and beginning to be embedded (time is needed to fully embed), 4: fully embedded in my subject				
Intent				
Does your subject reflect a coherent rationale for the school's broad and balanced curriculum?				x
Is there a carefully sequenced progression of Computing knowledge/concepts/skills to end of KS1/2				x
Does your unique Computing curriculum meet your pupils' needs & meet N.C standards?				X
Curriculum coverage allows all pupils to access content & make progress			X	
Implementation				
Teachers can explain what children learn/why it's important in your subject's curriculum			X	
Subject leader's review / quality assure LTP and Unit Plans and check against work in book looks/on the server to ensure implantation of intent			X	
Teachers understand what the depth of knowledge expected is at the end of every unit / year through knowledge organisers			X	
Subject leaders show knowledge and expertise to design, support and deliver the curriculum through the development of knowledge organisers and support given to teachers			X	
Book looks, working walls, pupil voice and work check (on the server), shows that your subjects' curriculum is implemented fully			X	
There are opportunities for CPD support to upskill teachers in knowledge and skills for your subject			X	
Subject leaders, teachers and pupils are clear on how units are assessed and how progress is shown			X	
Differentiation is appropriate to enhance all pupils' capacity to access the full curriculum			X	
Pupils use appropriate resources for your subject to build knowledge and skills		X		
Clear understanding of what progression looks like in and across each year group – progression of vocabulary is explicit			X	
Opportunities for all staff to moderate/ share / feedback on work			X	
Impact				
Pupils have embedded and retained fluent knowledge in your subject's knowledge, skills and vocabulary (in and across years)			X	
Children have progressed in different strands of your subject and this is clear from book look/work on server and pupil voice			X	
Subject books/work on server show children voice, learning and progress through examples of work, images etc			X	

Why is Computing important at our school? (Vision Statement)

Intent: Computing is changing the lives of everyone, especially children and young people. Through the teaching of Computing, we equip children to participate in a rapidly-changing world where work and leisure activities are increasingly transformed by technology. Computing enables rapid access to ideas and experiences from a wide range of communities and cultures. Using Computing tools: pupils can find, explore, analyse, exchange and present information. We enable them to find, explore, analyse, exchange and present information. We also focus on developing the skills necessary for children to be able to use information in a discriminating and effective way. Increased Computing capability promotes initiative and independent learners. It must be our intent to enable all children in the school to develop the knowledge, skills and understanding that will enable them to function in this digital age. Computing skills are a major factor in enabling children to be confident, creative and independent learners.

It is the aim of Lambley Primary School:

- To provide all pupils with their National Curriculum entitlement.
- To ensure that their e-safety knowledge and understanding is up-to-date and secure enough for them to cope with questions and challenges when faced.
- To develop children's individual computing capability to the best of their ability – both in skills and understanding, as well as knowledge. To ensure children's computing experiences are progressive, coherent and relevant as they move through our school.
- To apply their Computing skills and knowledge to their learning in other areas.
- To allow all staff and children to gain confidence in, and enjoyment from, the use of Computing.
- To equip pupils with the confidence and capability to use Computing throughout their later life.
- To develop an awareness of the capabilities as well as the limitations of Computing.
- To recognize the potential, and deepen the awareness of the application and necessity of Computing in everyday life.
- To stimulate interest in new technologies.
- To encourage pupils with access to home computers to contribute to and enhance their school work and homework.
- To use computing to keep parents informed in all aspects of school life.
- To plan teaching and learning of Computing as a discrete subject and the use of Computing as a learning tool across the curriculum.
- To develop staff so that they are able to adapt to the continually changing challenges presented by Computing and in so doing ensure that our pupils receive a Computing education in line with their ability, access and needs.

Implementation: At Lambley, computing is taught using a blocked curriculum approach. This ensures children are able to develop depth in their knowledge and skills over the duration of each of their computing topics. Teachers use the 'Purple Mash' scheme, as a starting point for the planning of their computing lessons, which are often richly linked to engaging contexts in other subjects and topics. Knowledge and skills are mapped across each topic and year group to ensure systematic progression. We have a class set of laptops and a class iPad to ensure that all year groups have the opportunity to use a range of devices and programs for many purposes across the wider curriculum, as well as in discrete computing lessons. Employing crosscurricular links motivates pupils and supports them to make connections and remember the steps they have been taught. The implementation of the curriculum also ensures a balanced coverage of computer science, information technology and digital literacy. The children will have experiences of all three strands in each year group, but the subject knowledge imparted becomes increasingly specific and in depth, with more complex skills being taught, thus ensuring that learning is built upon. For example, children in Key Stage 1 learn what algorithms are, which leads them to the design stage of programming in Key Stage 2, where they design, write and debug programs, explaining the thinking behind their algorithms.

Computing across the curriculum: Cross curricular outcomes in computing are specifically planned for and these are indicated on the whole school Computing Knowledge and Skills Progression Map. The computing provision is also well resourced and specific resources are mapped to specific year groups and topics to support effective teaching and learning. Computing is used to expand the opportunities it presents for many other subjects, for example, TT Rockstars and Mathletics is used to support the learning in maths and use of the internet provides learning opportunities for topic research, leading to presentation opportunities using PowerPoint.

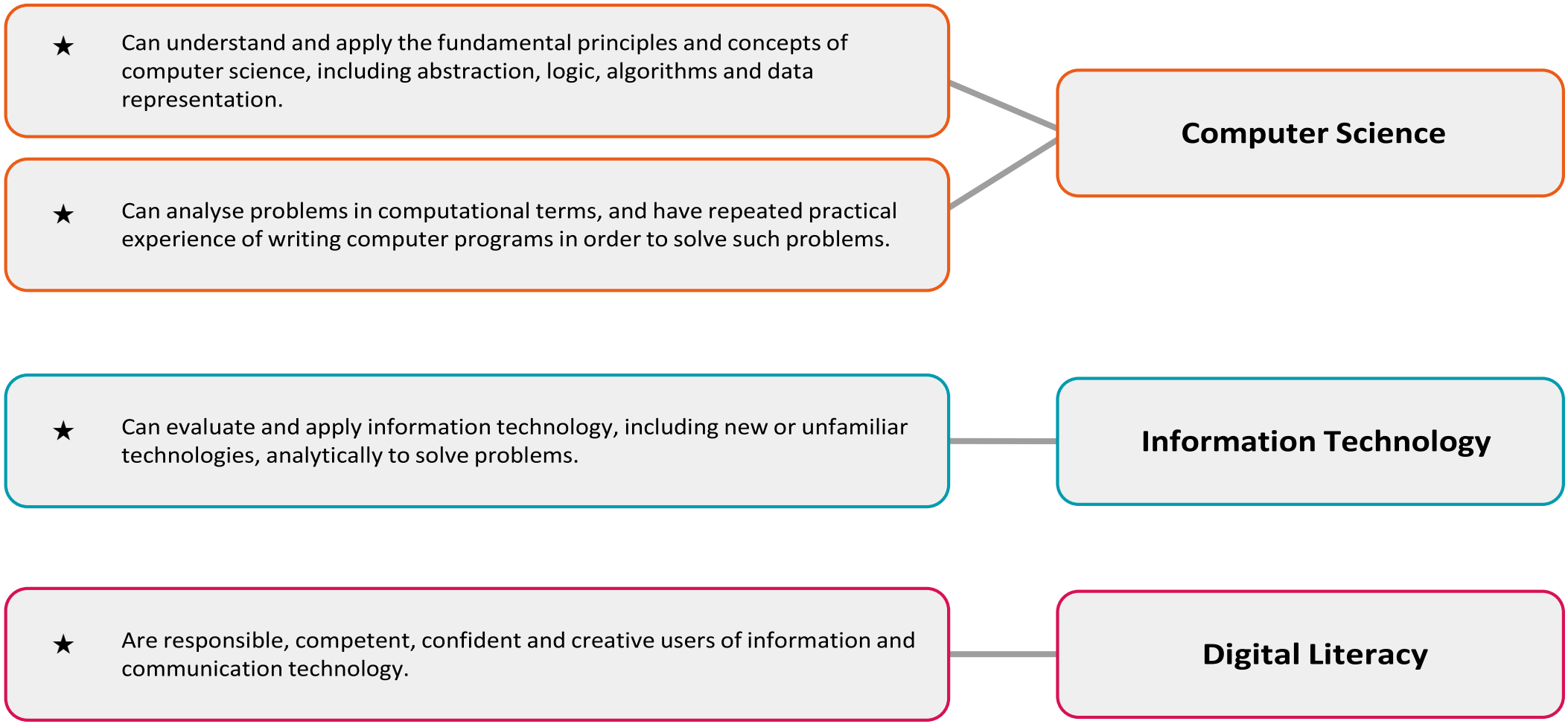
Reading across the curriculum: As with all subjects, reading skills are very important in building children's knowledge and understanding of computing. Coding requires children to read and comprehend the coding language, before debugging the code. Internet research, word processing and presentation work all require a significant degree of reading prowess, conveying how reading unpins much of the computing curriculum.

Impact:

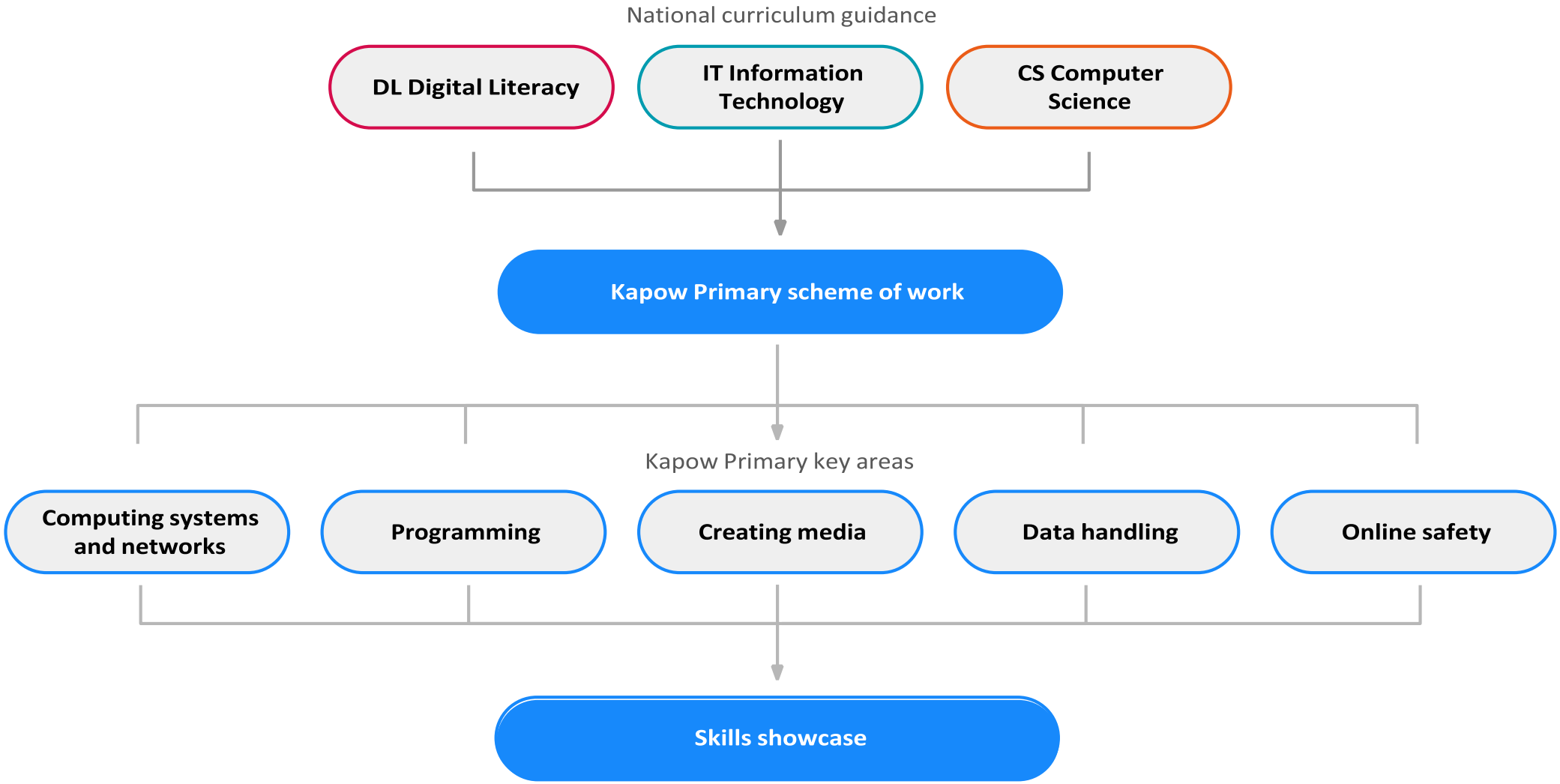
Our approach to the curriculum results in a fun, engaging, and high-quality computing education. The quality of children's learning is evident on Purple Mash, a digital platform where pupils can share and evaluate their own work, as well as on the school's secure internal server. Evidence such as this is used to feed into teachers' future planning, and as a topic-based approach continues to be developed, teachers are able to revisit misconceptions and knowledge gaps in computing when teaching other curriculum areas. This supports varied paces of learning and ensures all pupils make good progress. Much of the subject-specific knowledge developed in our computing lessons equip pupils with experiences which will benefit them in secondary school, further education and future workplaces. From research methods, use of presentation and creative tools and critical thinking, computing at Lambley Primary School gives children the building blocks that enable them to pursue a wide range of interests and vocations in the next stage of their lives.

How does our scheme of work align with the National curriculum?

Our scheme of work fulfils the statutory requirements outlined in the **National curriculum.** The National Curriculum Programme of Study for Computing aims to ensure that all run throughout our scheme of work:



How is the Computing scheme of work organised?



The ‘Skills showcase’ key area, features aspects from some or all of the five key areas above

Key areas

We have categorised our lessons into the five key areas below, which we return to in each year group making it clear to see prior and future learning for your pupils and how what you are teaching fits into their wider learning journey.

Computing systems and networks	Programming	Creating media	Data handling	Online safety
Identifying hardware and using software, while exploring how computers communicate and connect to one another.	Understanding that a computer operates on algorithms, and learning how to write, adapt and debug code to instruct a computer to perform set tasks.	Learning how to use various devices — record, capture and edit content such as videos, music, pictures and photographs.	Ensuring that information is collected, recorded, stored, presented and analysed in a manner that is useful and can help to solve problems.	Understanding the benefits and risks of being online — how to remain safe, keep personal information secure and recognising when to seek help in difficult situations.

Skills showcase units

There are four units entitled Skills showcase. These units give children the chance to combine and apply skills and knowledge gained, from a range of the five key areas above, to produce a specific outcome.

Y1 - Rocket to the moon

Y4 - HTML

<h1> Heading </h1>

<h2> Heading 2 </h2>

<h3> Heading 3 </h3>

<h4> Heading 4 </h4>

<h5> Heading 5 </h5>

<h6> Heading 6 </h6>

Y5 - Mars Rover 2

Y6 - Inventing a product

A spiral curriculum

Kapow Primary's Computing scheme of work has been designed as a spiral curriculum with the following key principles in mind:

✓ **Cyclical**: Pupils revisit the five key areas throughout KS1 and KS2.

✓ **Increasing depth**: Each time a key area is revisited, it is covered with greater complexity.

✓ **Prior knowledge**: Upon returning to each key area, prior knowledge is utilised so pupils can build on previous foundations, rather than starting again.

Computing Long-Term Plan

	Autumn		Spring		Summer	
Year 1	Online Safety	Computer skills and networks: Mouse skills	Skills Showcase: Rocket to the Moon	Creating media: Digital imagery	Programming 1: Algorithms	Programming 2: Bee-Bots
Year 2	Online Safety	Computer system and networks 1	Computer systems and networks2	Creating Media	Programming 1	Programming 2
Year 3	Online Safety Computing systems and networks 1: Networks and the internet	Scratch	Computing systems and networks 2: Emailing	Computing systems and networks 3: Journey inside a computer	Creating media: Video trailers	Data handling: Comparison cards databases
Year 4	Online Safety Programming 1: Further coding with Scratch	Programming 2: Computational thinking	Computing systems and networks: Collaborative learning	Skills showcase: HTML	Data handling: Investigating weather	Creating media: Website design
Year 5	Online Safety Programming Music: Scratch	Stop Motion: Animation	Data Handling: Mars Rover 1	Skills Showcase: Mars Rover 2	Computing systems and networks: Search engines	Programming 2: Micro:bit

Year 6	Online Safety Computing systems and networks: Bletchley Park	Creating media: History of computers	Programming: Intro to Python	Skills showcase: Inventing a product	Data Handling: Big Data 1	Data Handling: Big Data 2

How will we know the children learn well in Computing at our school?

How well do children learn in Computing?	Evidence
Pupils can use the knowledge and vocabulary they have learnt to verbally articulate their understanding. They show that they can retain facts.	Child-led Book Looks Pupil voice Computer Floor Book
Pupils can use knowledge they've learnt and transfer to a structured task on the computer. Showing they can retain facts and show an understanding of their learning.	Book Looks Pupil voice Computer Floor Book
Pupils use topic walls and server effectively to show how they are building on prior learning and using current knowledge and vocabulary to develop understanding.	Work scrutiny Pupil voice Homework Displays
Pupils show a natural curiosity for their topic	Pupil voice Homework Classroom visits
Use of progression documents allows pupils skills to develop through year groups	Work scrutiny Pupil voice Topic Plans Progress Planners