## Intent

Computing supports our school vision of inspiring *life in all its fullness* through its contribution to our provision of the widest possible breadth of curriculum, equipping our children to use computational thinking and creativity to further understand and contribute to the wider world. We believe that computing, and computational thinking, are an integral part of all learning. Our intent and aims for computing are that all children will be able to develop a range of skills, knowledge and understanding that will equip them for the rest of their lives. We are aware that each child's starting point is very different, so our computing curriculum is designed with high expectations and to develop skills sequentially in all of our children, drawing on and extending their prior knowledge in the subject. Our breadth of provision is also designed to allow children to discover and develop new talents in the area and to make links with other areas of learning. We offer a range of enrichment activities, both within our school setting and outside the classroom.

With computer science at the heart of our computing curriculum, we aim to teach children the principles of information and computation, how a range of digital systems work and operate, and how to put this knowledge into practice through programming, as stated in the National Curriculum. Our children will be able to use technology efficiently and access the online world safely, respectfully and responsibly – skills that are compatible with other aspects of their lives and learning. The skills learnt in computing are transferable to a range of different subjects, as well as later in life for the future workplace. Our aim is that our children will become digitally literate contributors and active participants in a digital world.

Implementation

- Taught by class teachers, with support from part-time specialist teacher.
- Class teachers are given ongoing support and CPD from the Computing subject leader and specialist teacher.
- Ongoing assessment by class teachers, with end of year assessments against key statements reported to parents in annual reports.
- Enrichment in the subject is offered through yearly trips to the City Learning Centre in Camden, coding workshops, and the offer of after school clubs.
- Computing, and Information Technology in particular, is often linked to other areas of the curriculum – publishing work on the computer, graphs created in different programs, researching information for different topics.
- School has a good supply of computing resources for different needs and is able to borrow equipment from the CLC if needed. Wifi throughout the school allows children to use the class sets of Chromebooks and/or iPads throughout the school building. Licences and subscriptions are purchased for various programs, websites and organisations to help facilitate learning and the use of technology, e.g. RodoCodo.
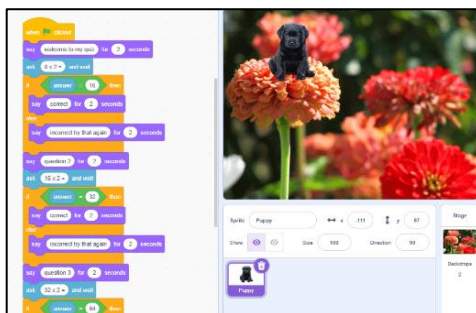
- Our progression in the teaching of coding skills is guided by our use of the Rodocodo children's coding program. The development of coding skills in Years 1 - 6 begins with lessons focused on the appropriate levels and coding elements taught within Rodocodo.

- Children are expected to <u>transfer the skills learnt in Rodocodo to other software and platforms</u>, including those using different coding formats or languages. Teachers introduce a range of programs and platforms where children can practise and consolidate their coding learning (e.g. J2code, Scratch, Unplugged activities), including by transferring their coding knowledge to specific tasks (e.g. creating a maths game, animating a fairy tale). This is linked to our termly lessons expectations as set out in the *Coding Overview* document.

- Within a range of information technology activities across the curriculum, all children are given the opportunity to develop the specific skills as set out in our skills progression. Children may have varying access to and experience of technology outside school and some children may need specific or additional teaching or support to build confidence in these key skills.

- Teachers give ongoing, age-appropriate reminders about safe and responsible use of technology before and during all computing and online activities.
- Each year, teaching about online safety and digital citizenship, as set out in our skills progression document, is also taught in all classes in a specific whole-school theme day or week. There are also regular reminders before and during computing lessons, or whenever children are using technology.
- All children are supported to acquire the intended knowledge and skills in science, through adaptive teaching in the classroom. Learning is adapted for children with SEND and scaffolded support is given where needed.

- Both formative and summative assessment is used in computing. Teachers will use formative assessment within a lesson to assess children's needs and successes, and are able to adapt the level at which they model and provide support to the class. Children who are identified as needing additional support can receive this within lessons from teachers and additional adults. Each lesson comes with supplied plans that have objectives and assessment opportunities that teachers can use. Children who are exceeding in the subject will receive less teacher modelling, and be encouraged to work through tasks more independently. They may also be directed to other websites, such as *hourofcode,* where they can apply learning in different contexts. Rodocodo also provides more advanced levels, allowing children to master the skills they are building on. Using a range of evidence including observation, work sampling, discussion with pupils and questioning, teachers make summative assessments at the end of a unit of work, against key learning points (found within planning) and skills statements found in both our *Skills Progression* document and our end of year reports. Summative assessments are reported to parents in end of year reports.

Impact

- Children enjoy taking part in computing lessons.
- All children develop their skills using a range of programs and devices. These skills are built cumulatively over children's time at Christ Church and build upon previous learning in a planned sequence.
- Children have a very good knowledge of coding and are able to transfer this to different platforms (e.g. Scratch, RodoCodo, J2Code) and to other curriculum areas, (e.g. problem solving to create a night light using crumble coding in DT)
- Children have the opportunity to use computers and technology across the curriculum and produce digital work of a high standard.
- Children use relevant computing vocabulary and can discuss the meaning of these words

Whole school standards (three-year trend)

Response to the Ofsted Research Review and Subject Report

The **Ofsted curriculum research review for Computing** (May 2022) reviewed a wide range of relevant educational research into both primary and secondary science teaching and identifies factors which may contribute to high-quality science education. The Christ Church reflection on and response to the curriculum review is summarised in our Autumn 2022 curriculum leader report.

There is currently no **Ofsted subject report for computing.**

Last year's key developments and successes in 2024/25:

1.   Implement the digital creativity units for the Spring Term and then assess and evaluate their effectiveness

Intended outcome: units are completed in each class 1-6 and teacher reviews the effectiveness / practical considerations for the units.

24/25 Target achieved: New units were implemented and taught in all year groups from Year 1 to Year 6. Feedback and evaluation were positive and these units will be part of the curriculum in the following years.

2.   Vocabulary embedding for all children and staff.

Intended outcome: Key vocabulary for each year group can be recalled by children and staff (Computer science)

24/25 target achieved: Teachers selected key vocabulary (from Computing documentation) to focus on in each lesson. This was displayed in classrooms. Children are more confidently able to discuss what they have learnt, using appropriate vocabulary.

3.   Online safety specific lessons in the lead up to online safety day

Intended outcome: All children can confidently talk about ways they can stay safe online, and how to deal with any issues they may face.

24/25 target achieved: Lessons were taught in all year groups from Reception to Year 6. Children are able to confidently discuss risks and ways to deal with them.

4.   Work with Camden IT on successful procurement and installation of updated hardware (including PCS and laptops related to Windows update and storage units for chromebooks and iPads)

Intended outcome: Hardware in school works effectively and with the latest updates. Storage of chromebooks/iPads is updated so that it is more accessible to classes and frees up space in group room.

24/25 target achieved: New devices have been bought and set up which are compatible with Windows 11 – funded by successful parent crowdfunding campaign. Storage units have been purchased but need to be installed to enable trolleys to be taken out of use. Will need to consider action plan for further procurement of iPads and chromebooks in the near future.

Additional successful development activities which have taken place in 24/25:

Trips

All KS2 classes attended workshops at the CLC throughout the year, providing them with opportunities that we are unable to offer within school due to additional specialist resources required.

Year 5 took part in a trip to the Google offices in London.

Additional Enrichment

Throughout the year, all classes took part in different 'people in STEM' webinars, looking at future career opportunities. These were facilitated through Camden Learning, and included people who work in the medical field, space, and engineering.

Key targets and actions moving forward (development priorities for 2025/26):

Target and *intended outcome*	Planned actions (including dates where applicable)
1. **Review and refine Christ Church curriculum where needed in light of the government's Curriculum and Assessment Review** *Intended outcome: Christ Church curriculum aligns with national curriculum and other statutory guidance.*	- Review the government's Curriculum and Assessment review, when published, and identify any areas for update or refinement in the Christ Church curriculum - Update planning and related documentation, including 'curriculum pack' and 'curriculum statement' for the subject, to reflect any updates Ensure appropriate professional development and resources are in place for any changes or updates
2. **Review and refine current online safety curriculum for KS1** *Intended outcome: Updates to online safety curriculum ensure that all children are able to identify risks and have strategies to keep themselves safe*	Refine teaching in year 1 and year 2 Ensure teachers are giving enough time to online safety lessons in each year group
3. **Review and refine current online safety curriculum for KS2** *Intended outcome: Updates to online safety curriculum ensure that all children are able to identify risks and have strategies to keep themselves safe*	Look at new resources especially for upper KS2 Ensure teachers are giving enough time to online safety lessons in each year group
4. **Develop understanding of AI and how it can support teaching and learning** *Intended outcome: teachers become more confident in using AI to support their workload and children begin to develop an understanding of what AI is, and some positive and negative features of it.*	Staff training in AI for computing leads Staff training in AI for whole teaching staff Develop and implement lessons in AI use to deliver to classes in KS1 and KS2. Develop school AI policy

Professional development and links outside the school

Our specialist teacher in Computing works in the subject across two different schools, enabling sharing of ideas and trialling of resources in different settings.

The computing lead is also part of the local Computing Leads subject network, where computing leads come together each term to share new resources and best practice. This ensures that what we do at Christ Church is also in line with other schools in Camden.

Our links with the Camden Learning Centre enable professional development to take place for teachers during the KS2 class visits each year. The computing lead also provides staff training to the teaching staff group or to individual teachers, e.g. ECTs, where valuable.

Pupil voice

Pupil voice discussions in November 2024

What have you enjoyed learning about in computing?

Y1 – We get to play games

Y2 – Rodocodo because each lesson is a different topic

Y3 – I like decoding because when you are older, you always have to solve problems. Busy Things because it is fun

Y4 – Scratch because you can use different codes and make them do different things. Typing club because you can learn where all the keys are and it's making me better at typing

Y5 – Rodocodo (functions and loops) because it reminds me of my routine in life

Y6 – I like the coding where we make games and do scratch lessons

What would you like to learn about in computing?

Y1 – How to make songs

Y2 – Using computers to help us learn in other lessons

Y3 – More about how a computer functions. Learn how to properly use a computer for more than just games or coding

Y4 – Make more video games

Y5 – How to code in HTML, Java or Python

Y6 – More game making

Have you learnt any new computing terms (words) this year?

Y1 – Different buttons (step, pick up)

Y3 – Function

Y4 – Chronological order in coding. Loops

Y6 – Debugging

Do you think girls and boys are equally interested in computing at Christ Church? why/why not?

Y2 – Yes! Everyone in my class likes computing

Y3 – No, because the boys use screens more outside of school, so they enjoy it more.

Y4 – I think it's equal because everyone likes going on it and coding

Y5 – Yes, most people in my class like it

Y6 – I'm not sure there is a difference

Is there anything you find tricky in computing, and what helps you?

Y2 – If you aren't very good, maybe we could get some computing homework

Y3 – Sometimes the programs don't work properly - more help on how to fix it.

Y4 – On the Rodocodo challenges, if you get stuck you need to try it first, then ask.

Y5 – I find it hard to recognise the error in the code. More practice at debugging would help.
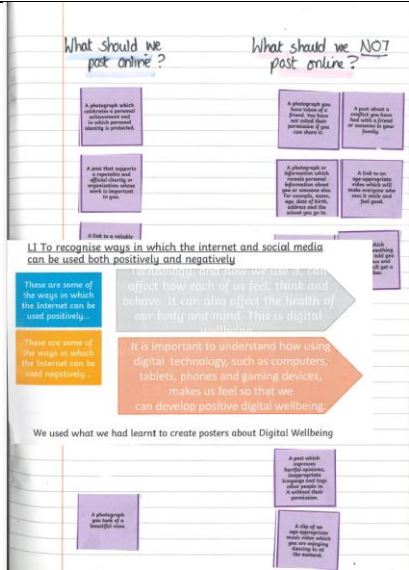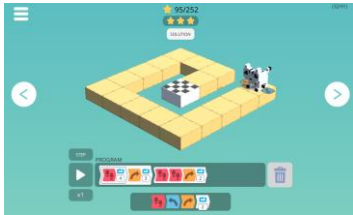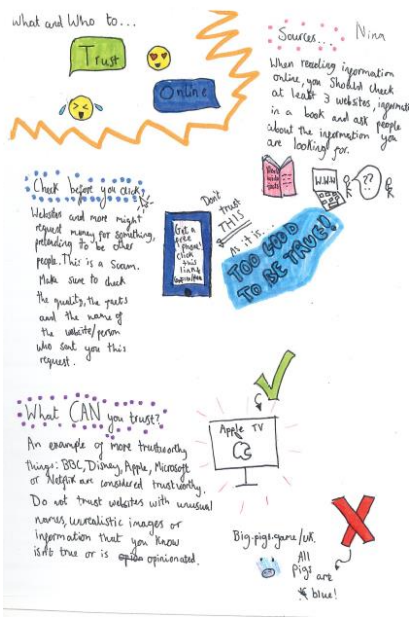
What makes our curriculum provision for Computing exceptional and beyond the expected?
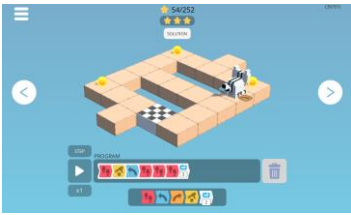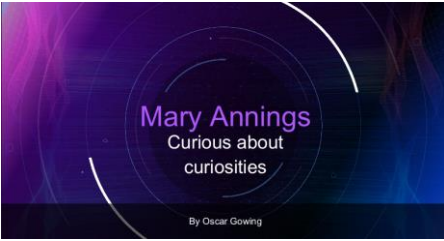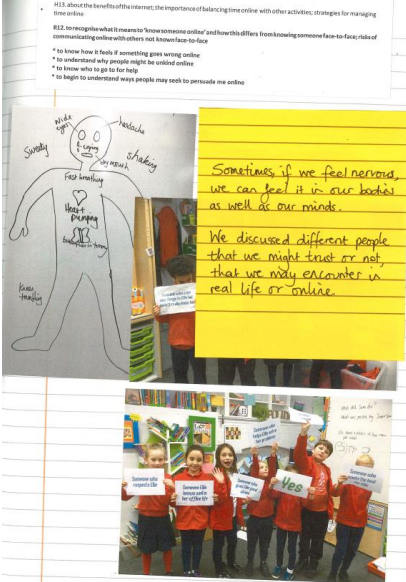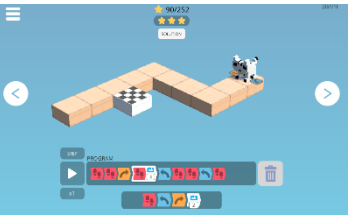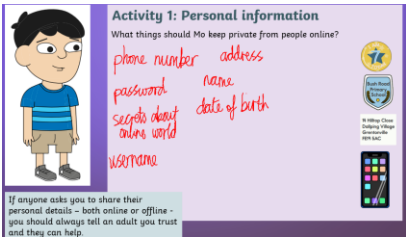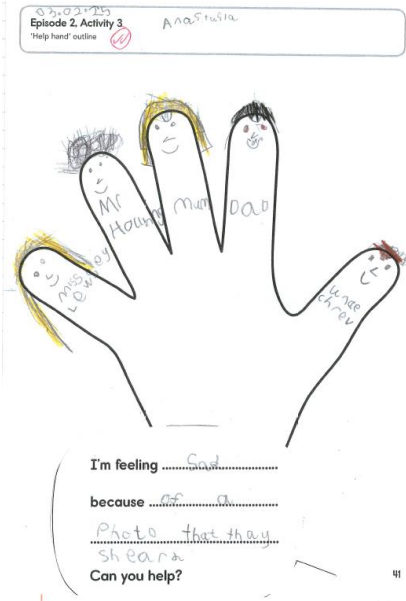
❖ Computing enrichment opportunities at the CLC, or in class by specialists.

❖ Use of coding skills in other curriculum areas – e.g. Y6 crumble coding for DT

❖ The skilled support and training provided by our specialist computing teacher is beyond the expected

❖ Student confidence using devices appropriately and safely is exceptional

❖ Children can confidently discuss how what they have learnt in the past is able to help them now, with different programs

Key points for discussion about this report

- Sharing *Skills Progression* and *Coding Overview* – focusing on how this all fits together and builds year on year
- Enrichment including resources from different organisations
- Importance of online safety work – within computing and across curriculum, as well as school day/routines
- Three strands – Coding (computer science), Information Technology, and Digital Literacy/Online Safety (Digital Citizenship) – and how these work together and are applied in other curriculum areas

Work sampling across the three strands of Computing

	Computer Science - RodoCodo Progression (one platform used for our coding progression)	Information Technology	Online Safety and Digital Literacy
Year 6	Variables – tracking changes	Google Docs – published persuasive report	
Year 5	Loops - nested loops	Google Docs – published letter	
Year 4	Functions – creating functions	Book Creator – London information leaflet	

Year 3	Loops – spotting patterns	PowerPoint presentation Mary Annings Curious about curiosities By Oscar Gowing	Sometimes if we feel nervous, we can feel it in our bodies as well as our minds. We discussed different people that we might trust or not, that we may encounter in real life or online.
Year 2	Fixing bugs	Pic Collage – publishing poem and drawing images There was an old man with a beard Arthur There was an old man with a beard, who said,'It is just as I feared! Two owls and a wren, have all built their nests in my beard.	Activity 1: Personal information What things should Mo keep private from people online? phone number address password name secrets about date of birth online world username If anyone asks you to share their personal details – both online or offline - you should always tell an adult you trust and they can help.
Year 1	Sequencing – pick up	Digital art Ottilie 27/1/25 1:44 p.m. Astrid 27/1/25 1:42 p.m. Mira 27/1/25 1:40 p.m. Nina 27/1/25 1:38 p.m.	03.02.25 Anastasia Episode 2, Activity 3 'Help hand' outline I'm feeling ....Sad......... because ....of......a....... .....Photo....that....thay....... .....sheard....... Can you help? 41
Reception	Early coding – directional language using Beebots	Word – typing name and end of sentence	Smartie the Penguin! mum dad