

Computing Policy

| Cherry Lane Primary School | |  |
|-----------------------------------|--------------------|---|
| Date policy formulated | Autumn 2019 | |
| Date of next review | Spring 2021 | |
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Intent

This policy reflects the values and philosophy of Cherry Lane Primary School in relation to the teaching of Computing; children will have access to all areas of new Computing curriculum and have opportunities to:

- Develop Computing capability, and confidence, including their knowledge and understanding of the importance of information and of how to select and prepare it;
- Develop their skills in using hardware and software to manipulate information in their processes of problem solving, recording and expressive work;
- Develop their ability to apply their Computing capability to support their use of language and communication, and support their learning in other areas;
- Explore their attitudes towards Computing, its value for themselves, others and society, and their awareness of its advantages and limitations.
- New National Curriculum aims are reflected (see page 5)

Implementation

The Purple Mash Computing curriculum is used as a scheme of work for Years 1-6. Half termly planning is done using Smart Notebook or PowerPoint.

In Early Years, children are introduced to Purple Mash and other areas of the curriculum through weekly Computing lessons, and the use of I pads in the classroom.

This year the server has been upgraded to Windows 10 and new Interactive Whiteboards have been placed throughout the school. In addition to this new software has been installed that was requested by staff to support a wide range of the new curriculum area.

Each Computing unit develops and reinforces skills, such as word processing, use of data packages, e-mail and Internet, graphic programmes, measurement and control, programming and coding. (See Appendix 1) Cross curriculum links are highlighted on individual curriculum plans.

Long term plans have been adapted and suited to the Cherry Lane Primary curriculum cycle.

Through this policy and by following the planning children should:

Understand how Computing can be used to communicate and handle information, measure, control and monitor events, and model real and imaginary situations.

- Acquire and develop the skills associated with using computers and other devices to:
 - pass on ideas by communicating, presenting and exchanging information
 - find things out and handle information
 - make things happen by controlling and monitoring events
 - try things out by modelling real and imaginary situations
- Acquire and refine the techniques e.g. *saving, copying, checking the accuracy of input and output* needed to use Computers;
- Practise mathematical skills e.g. *ordering numbers including negative numbers, measuring and calculating to an appropriate number of decimal places, drawing and interpreting graphs and bar charts* in real contexts;
- Learn why numerical and mathematical skills are useful and helpful to understanding. This is supported by some KS2 LA having an allocated time to use the Computing suite/laptops are available for class use.
- Develop the skills of collecting first-hand data, analysing and evaluating it, making inferences or predictions and testing them, drawing and presenting conclusions and use all these in their work with Computing.
- Interactive whiteboards are in every classroom. They are used across the curriculum to support teaching and learning and the development of Computing skills. When staff and children are using whiteboards appropriate measures should be taken to ensure any risk is kept to a minimum by following health and safety procedures set out in the policy. Interactive whiteboards have been installed at the correct

height for the year group and the height for the children in line with health and safety advice.

- Ipad's are available for use in classrooms across the school, to support cross-curricular activities.
- Children's use of the Internet is subject to the completion of an ESafety agreement.
- ESafety will be taught/covered half termly
- Staff and pupils should all be made aware of the Internet policy and the eSafety Policy (See Appendix 2) which has been recommended by the London Grid for Learning.

Cross Curricular Skills and Links

Skills through **Computing** should encourage children to:

- Develop language skills e.g. *in systematic writing and in presenting their own ideas;*
- Use the appropriate technical vocabulary;
- Read non-fiction and extract information from sources such as the internet and subject specific software.
- Use and explore the Internet.
- Work with others, listening to their ideas and expertise and treating these with respect e.g. *co-operating and collaborating when using a computer as part of a group to ensure that all contribute;*
- Acknowledge the ownership of ideas and recognise the value of information held on IT systems e.g. *recognising how much work has gone into producing a computer file, and how easily careless access can destroy it;*
- Be aware of the security of their own and other people's information in electronic form e.g. *recognising that they should ask before reading or copying from other's work;*
- Recognise the importance of printed output e.g. *keeping examples of graphics work safe so that source files may be easily identified when work is developed at a later date;*
- Be creative and persistent e.g. when assembling a computer file from a large amount of source material;
- Consider the origin and quality of information and its fitness for purpose; (Internet Access policy)
- Evaluate critically their own and others' uses of Computing;
- Recognise the strengths and limitations of Computing and its users e.g. *recognising that a word processor is an effective and efficient tool to help writing, but, on occasion, hand written text is more appropriate;*

- Develop knowledge and understanding of important ideas, processes and skills and relate these to everyday experiences;
- Learn about ways of thinking and of finding out about and communicating ideas;
- Explore values and attitudes through Computing.
- Observe safety rules and develop care and respect of equipment.

Expectations

Early experiences

The differing backgrounds children have in Computing capability offer a significant challenge to teachers. Children who have access to computers outside school often have greater skills in handling hardware and software. By observing children's developing Computing capability, teachers will be able to ascertain what tasks and expectations would best support their learning.

End of Key Stage Expectations

End key stage expectations are highlighted in the National curriculum document reflected through Switched on Computing, which is followed by all staff. These are at the end of each unit.

Features of progression

To ensure children make progress in Computing, teaching should promote opportunities for children, as they move through Key Stages 1 and 2.

The national curriculum for computing aims to ensure that all pupils:

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems

- are responsible, competent, confident and creative users of information and communication technology

Inclusion

Children will engage in many types of tasks to involve critical reflection, practical activities, creative development and writing. Where necessary, activities and resources may be differentiated so as to take account of such individuals.

At Cherry Lane Primary School our children work at levels appropriate to their abilities. Provision for children with SEN in relation to Computing is the responsibility of the class teacher, support staff and SENCO as appropriate. Computing especially provides a means where SEN children are able to present and develop their work easily. Where possible the computer/Ipad is made available for specific children to work with support staff so that work can be drafted and redrafted. The teachers use computers for the writing of IEPs and the SENCO uses Computers for the Special Needs Inventory.

The SENCO will also receive an inventory of software specific to Special Needs children and more software is anticipated to be bought.

The Special Needs children will also have opportunities to use computers for SAT's papers where applicable.

Equal Opportunities

Computing will be taught to all pupils, irrespective of race, culture, religious diversity, gender or disability. All pupils will have access to a broad and balanced curriculum and appropriate time will be provided to meet the National Curriculum requirements.

Impact

Children will be confident users of technology, able to use it to accomplish a wide variety of goals, both at home and in school.

Children will have a secure and comprehensive knowledge of the implications of technology and digital systems. This is important in a society where technologies and trends are rapidly evolving.

Children will be able to apply the British values of democracy, tolerance, mutual respect, rule of law and liberty when using digital systems.

Assessment and Record Keeping

Assessment and evaluations are continuous focusing on progress and achievement and National Curriculum coverage. Computing is assessed through observation of child or group, on discussion with children, children's evaluations and work saved. Individual teachers use methods appropriate to their class. The assessment aids future planning and provides information on progression and development of skills.

Parents are informed of their child's progression in the annual parents report.

Governors will take a strategic overview of the policy review cycle as scheduled, committee as part of the monitoring process. The Governors will receive updated information from the head, curriculum co-ordinator and the Computing coordinator.

APPENDIX 1

The Units of the Programme of Study References

| | Term 1 Autumn | Term 2 Spring | Term 3 Summer |
|--------|--------------------------|--------------------------|--------------------------|
| Year 1 | 1.1 1.2 1.3 1.4 | 1.5 1.6 | 1.7 1.8 1.9 |
| Year 2 | 2.1 2.2 2.3 | 2.4 2.5 | 2.6 2.7 2.8 |
| Year 3 | 3.1 3.1 3.3 | 3.4 3.5 | 3.6 3.7 3.8 |
| Year 4 | 4.7 4.8 4.2 4.4 | 4.3 4.5 | 4.6 4.1 |
| Year 5 | 5.1 5.2 5.4 | 5.3 5.5 | 5.6 5.7 |
| Year 6 | 6.1 6.2 6.4 | 6.3 6.5 | 6.6 6.7 |

| Year | Unit Title |
|-------------|---|
| 1 | Online Safety and Exploring Purple Mash 1.1 |
| 1 | Grouping and Sorting 1.2 |
| 1 | Pictograms 1.3 |
| 1 | Lego Builders 1.4 |
| 1 | Maze Explores 1.5 |
| | Animated Book Stories 1.6 |
| 1 | Coding 1.7 |
| | Spreadsheets 1.8 |
| | Technology Outside School 1.9 |
| 2 | Codin 2.1 |
| | Online Safety 2.2 |
| 2 | Spreadsheets 2.3 |
| 2 | Questioning 2.4 |
| 2 | Effective Searching 2.5 |
| | Creating Pictures 2.6 |
| | Making Music 2.7 |
| | Presenting Ideas 2.8 |

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|---|------------------------------|
| 3 | Coding 3.1 |
| 3 | Online Safety 3.2 |
| 3 | Spreadsheets 3.3 |
| 3 | Touch Typing 3.4 |
| 3 | Email (and email safety) 3.5 |
| | Branching Databases 3.6 |
| | Simulations 3.7 |
| | Graphing 3.8 |
| 4 | Coding 4.1 |
| 4 | Online Safety 4.2 |
| | Spreadsheets 4.3 |
| 4 | Writing for audiences 4.4 |
| 4 | Logo 4.5 |
| | Animation 4.6 |
| 4 | Effective Searching 4.7 |
| | Hardware Investigators 4.8 |
| 5 | Coding 5.1 |
| 5 | Online Safety 5.2 |
| | Spreadsheets 5.3 |
| 5 | Databases 5.4 |
| | Game Creator 5.5 |
| 5 | 3D Modelling 5.6 |
| 5 | Concept Maps 5.7 |
| 6 | Coding 6.1 |
| 6 | Online Safety 6.2 |
| 6 | Spreadsheets 6.3 |
| | Blogging 6.4 |
| | Text Adventures 6.5 |
| | Networks 6.6 |
| | Quizzing 6.7 |

APPENDIX 2

Internet Access policy and rules for responsibly Internet use.

Computers are installed with Internet access to help our learning. The rules will help to keep everyone safe and help us to be fair to others.

- We will use the Internet when an adult gives permission.
- We will only use **our own** log in numbers to access email and work.
- I will not attempt to log in on other peoples files.
- I will only use the Internet for schoolwork.
- I will only email people my teacher has approved.
- I will only access websites that are agreed in school (LGFL have a very good filtering system for unsuitable sites).
- The emails I send will be polite and sensible.
- I will not give out my home address or telephone number on any website.
- I will help to protect myself and other pupils by reporting anything I see that is upsetting. This includes pictures, and words on websites and in emails I receive.
- I understand that the school will check my files and may monitor the Internet sites I visit.

Please also see the eSafety Policy in the Policy File.