NPS Long Term Plan for Computing 2024-25

	KS1	KS2
CS	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions Create and debug simple programs Use logical reasoning to predict the behaviour of simple programs	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts Use sequence, selection, and repetition in programs; work with variables and various forms of input and output Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs Understand computer networks including the internet; how they can provide multiple services, such as the World Wide Web Appreciate how [search] results are selected and ranked
IT	Use technology purposefully to create, organise, store, manipulate and retrieve digital content	Use search technologies effectively Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
DL	Recognise common uses of information technology beyond school Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies	Understand the opportunities [networks] offer for communication and collaboration Be discerning in evaluating digital content Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

Units can be taught in any order except:

PowerPoint to be taught in first half term

Programming A must be taught before Programming B

CS units are taught in year groups due to the skills progression

The Computing Curriculum can be divided into 3 strands:

CS – Computer Science

IT – Information Technology

DL – Digital Literacy

This long term plan maps out the provision and progression in the **CS** and **IT** strands of the curriculum.The majority of these units are from the Teachcomputing.org scheme of work.
https://teachcomputing.org/curriculum
All Teach Computing.org materials are accessed via the website:

Login Username: Nestonps
Password: Applemac2014

DL will be taught every half term following the ProjectEvolve or National College planning. It is aligned to the SMSC units where appropriate. **DL** concepts will be reinforced during Computing lessons.

Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
1	**IT CS DL** **Computing systems and networks** – Technology around us Computing systems and networks – Technology around us (teachcomputing.org) **technology, computer, keyboard, mouse**	**IT Creating media** – Digital painting (links to Kandinsky) Creating media – Digital painting (teachcomputing.org) tools	**CS Programming A** – Moving a robot Programming A – Moving a robot (teachcomputing.org) **algorithm, bug, program** Link to instructions in English: make sandwich etc. Look for errors (bug) in teacher's algorithm	**IT** 2Animate and/or further keyboard practise	**IT** **Data and information** – Grouping data Data and information – Grouping data (teachcomputing.org)	**CS** *Daisy the Dinosaur* Using Daisy the Dinosaur to Support Early Coding Concepts and Computational Thinking – Early Math Counts **tinker** (also lots of videos on YouTube)
2	**IT Creating media** – Digital writing Creating media – Digital writing (teachcomputing.org)	**CS DL Computing systems and networks** – IT around us Computing systems and networks – IT around us (teachcomputing.org)	**IT Data and information** – Pictograms Data and information – Pictograms (teachcomputing.org)	**CS Programming A** – Robot algorithms Programming A – Robot algorithms (teachcomputing.org) **predict**	**IT** iPad multi-media project	**CS Programming B** – Introduction to animation Programming B – Introduction to animation (teachcomputing.org) **sprite, programming block**
Vocab	Algorithm, program, technology, bug,					

Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
3/4	**IT** **Creating media** – PowerPoint **Y3** Simple Powerpoint, sequence of slides, Title page and subheadings **Insert text, image, animation Slide** transition **Y4**formatting text boxes	**CS** **Computing systems and networks** – Connecting computers Computing systems and networks – Connecting computers (teachcomputing.org) **input, output, process, network**	**IT** **Creating media –** Vector drawing Creating media - Vector drawing (teachcomputing.org) Y5neston@gmail.com Neston5! https://www.thenational.academy/teachers/programmes/computing-primary-ks2-l/units/vector-drawing-ea06/lessons	*CS* **Programming A** – Sequence in music Programming A – Sequence in music (teachcomputing.org)	iPad project	**CS** **Programming A** – Repetition in shapes Programming A – Repetition in shapes (teachcomputing.org) **logo, repeat, loops, text-based programming**
Prior Vocab	Algorithm, program, code, data, sprite					
4/5	**IT** **Creating media** – **Powerpoint** **Y4**formatting text boxes inserting links to www. **Y5** Simple hyperlink	**Year 4 CS/DL** **Computing systems and networks** – The Internet Computing systems and networks – The Internet (teachcomputing.org) See other resources on T-drive	**CS** **Programming A** – Repetition in shapes Programming A – Repetition in shapes (teachcomputing.org) **logo, repeat, loops, text-based programming**	iPad project	**IT** **Creating media –** Vector drawing Creating media – Vector drawing (teachcomputing.org)	**CS** ***Code-it:*** *Selection investigation*

		Year 5 CS/DL **Computing systems and networks** – Sharing information Computing systems and networks – Sharing information (teachcomputing.org) **system, component, IP address, protocol** See Oak Academy	**language, decomposition**		Y5neston@gmail.com Neston5! https://www.thenational.academy/teachers/programmes/computing-primary-ks2-l/units/vector-drawing-ea06/lessons	
Prior Vocab	Algorithm, program, bug, de-bug, sequence, input/output, network, data					

Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
5/6	**IT** **Creating media** – PowerPoint **Y5** Simple hyperlink **Y6** non linear powerpoint	**Year 5** CS/DL **Computing systems and networks** – Sharing information Computing systems and networks – Sharing information (teachcomputing.org) **system, component, IP address, protocol** See Oak Academy	**IT** **Creating media** – Vector drawing Creating media – Vector drawing (teachcomputing.org) Y5neston@gmail.com Neston5! https://www.thenational.academy/teachers/programmes/computing-	iPad project	**CS** ***Code-it:*** *Selection investigation* _____	**CS** **Programming A** – Variables in games Programming A – Variables in games (teachcomputing.org) **Variables** See Oak Academy

		Year 6 CS/DL **Computing systems and networks** – Communication Computing systems and networks – Communication (teachcomputing.org) **CAS Barefoot- Selecting Search Results Activity** **CAS Barefoot- Ranking Search Results Activity** See Oak Academy	primary-ks2-l/units/vector-drawing-ea06/lessons			
Prior Vocab	Algorithm, program, bug, de-bug, sequence, input/output, network, data, decompose, repeat/repetition, loops,					
Prior Vocab	Algorithm, program, bug, de-bug, sequence, input/output, network, data, decompose, repeat/repetition, loops, selection					