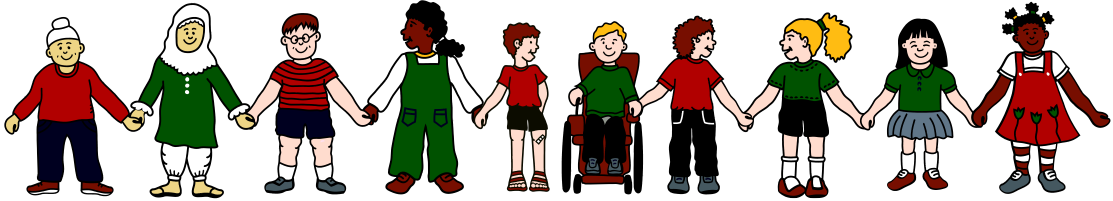


THE GILES
NURSERY
AND
INFANTS' SCHOOL



Computing Report for Governors

2023/2024

Computing Report for Governors

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By Curriculum Leads: Kerrhys Edwards and Alexandra Busby

Governor: Mr Hugh Dorey

Curriculum Intent:

Technology is everywhere and becoming an ever-increasing part of our lives. At The Giles Nursery and Infants' school, we want to model and educate our pupils on how to use technology positively, responsibly and safely. Computing is embedded across the whole curriculum to make learning creative and accessible.

The aim of our computing curriculum is:

- to support pupils in understanding 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 logistical reasoning to predict the behavior of simple programs
- use technology purposefully to create, organise, store, manipulate and retrieve digital content
- 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.

The role of the curriculum lead is to continually monitor and assess the quality of education and the curriculum being taught across the school. This is to ensure a creative and spiralled curriculum, which is accessible to all pupils and supports those pupils that are disadvantaged or have special educational needs and disabilities (SEND).

This is ensured through our school monitoring cycle, which includes lesson observations, work scrutiny, display monitoring and photographic evidence. Photographic evidence is displayed in the computing photographic evidence file and all other evidence is kept in the computing curriculum file, which is monitored by the headteacher each academic year. Pupils are also involved in the monitoring of computing through the collection of pupil voice from each year group. Further monitoring takes place with governors through curriculum leader reports, which are shared in governor meetings.

As of September 2022, online safety has become a central theme in the whole setting approach to safeguarding (source – KCSIE), and therefore the curriculum lead will liaise with governors as part of this role.

Intent

Teachers plan a creative, holistic, spiral curriculum to ensure that computing learning happens in a sequential and progressive manner. This enables pupils to build their knowledge and skills upon previous learning and embed what they have already learnt. Computing is split into three areas: digital literacy, information technology and computer science.

Purple Mash Computing Scheme of Work – List of all units

All Unit Summary

Predominant Area of Computing*		
	Computer Science	
	Information Technology	
	Digital Literacy	

*Most units will include aspects of all strands.

Early Years (Reception)

Rather than a scheme with set lessons, the early years resources are designed to integrate into the day-to-day routine and set-up of an early years setting with opportunities for using Mini Mash or Purple Mash as part of the Early Years curriculum to support children in working towards early learning goals.

In addition, there are units of suggested ideas that focus on computing skills specifically, that can also be provided as opportunities for learning as part of the topics in other areas to give children a sound basis to explore topics using technology and to be ready for progressing through the Computing curriculum. These are as follows and are designed to be integrated and linked to wider early years curriculum areas. These have been loosely classified into the three streams but there is overlap between all three streams.

Mouse and Trackpad Skills	Keyboard Skills	Drawing skills	Robots	Sounds	Photography
Technology Around Us	Hardware	Safety and Privacy	Quizzes	Using Purple Mash with an Individual Login	

Year 1

	Unit 1.1	Unit 1.2	Unit 1.3	Unit 1.4	Unit 1.5	Unit 1.6	Unit 1.7	Unit 1.8	Unit 1.9
	Online Safety & Exploring Purple Mash	Grouping & Sorting	Pictograms	Lego Builders	Maze Explorers	Animated Story Books	Coding	Spreadsheets	Technology outside school
Number of lessons	4	2	3	3	3	5	6	3	2
Main tool			2Count		2Go	2Create A Story	2Code	2Calculate	

Year 2

	Unit 2.1	Unit 2.2	Unit 2.3	Unit 2.4	Unit 2.5	Unit 2.6	Unit 2.7	Unit 2.8
	Coding	Online Safety	Spreadsheets	Questioning	Effective Searching	Creating Pictures	Making Music	Presenting Ideas
Number of lessons	6	3	4	5	3	5	3	4
Main tool	2Code		2Calculate	2Question 2Investigate		2Paint A Picture	2Sequence	

Curriculum Intent

Nursery

Autumn

Nursery Rhymes and Celebrations

- interactive stories on iPads

Spring

Jungle Animals

- topic related interactive games
- interactive stories on iPads
- eSafety

Summer

Sand and Water

- topic related computer programmes
- beebots
- eSafety

Reception

Autumn 1 – Imaginative story telling linked to the Three Little Pigs

Autumn 2 – Wolves and environments

- ESafety: how to keep safe on the internet
- topic related interactive stories
- interactive games
- using laptops
- using iPads to photograph signs of autumn
- using iPads to draw the wolf or pig

Spring

Spring 1 – Food technology and science investigations linked to The Gingerbread Man

Spring 2 – Safe Journeys

- topic related interactive stories
- interactive games
- drawing the gingerbread man on iPads
- using iPads to photograph signs of winter and spring
- using torches to create shadow puppets for Chinese New Year
- safer internet day

Summer

Summer 1 – Life cycles linked to The Little Red Hen

Summer 2 – Growing

Life cycles and growing linked to the traditional tale of 'The Little Red Hen'

- topic related interactive stories
- interactive games
- using computers and iPads
- using a bread machine
- using the iPads to draw Monet's 'The Haystack'
- using iPads to photograph signs of summer

Year 1

Autumn

Topic: Unit 1:1 – Online Safety and Exploring Purple Mash

- **Keeping safe online** - To use technology safely and increasingly respectfully, knowing how to respond if anything they access makes them feel uncomfortable or worried.
- **Safe Logins** - To log in safely and understand why that is important. To create an avatar and to understand what this is and how it is used. To be able to create a picture and add their own name to it. To start to understand the idea of 'ownership' of creative work. To save work to the My Work area and understand that this is private space.
- **My Work Area** -To learn how to find saved work in the Online Work area. To learn about what the teacher has access to in Purple Mash. To learn how to see messages left by the teacher on their work. To learn how to search Purple Mash to find resources.
- **Purple Mash Topics** - To become familiar with the types of resources available in the topics section. To become more familiar with the icons used in the resources in the topics section. To start to add pictures and text to work.
- **Purple Mash Tools** - To explore the Tools area of Purple Mash and to learn about the common icons used in Purple Mash for Save, Print, Open, New. To explore the games area on Purple Mash. To understand the importance of logging out when they have finished.

Topic: Unit 1:4 – Lego Builders

- **Following instructions** - To emphasise the importance of following instructions.
- **Following and creating simple instructions on the computer** - To follow and create simple instructions on the computer.
- **To consider how the order of instructions affects the result** - To consider how the order of instructions affects the result.

Spring

Topic: Unit 1:2 – Grouping and Sorting

- **To sort items using a range of criteria (offline)** - To sort items using a range of criteria.
- **To sort items using a range of criteria (online)** - To sort items using a range of criteria.

Topic: Unit 1:3 – Pictograms

- **To understand that data can be presented in picture format** - To contribute to a class pictogram.
- **To understand how pictograms are made** - To use data to make a pictogram.

Topic: Unit 1:5 – Maze Explorers

- **Introduction to coding (offline)** - To create a sequence of instructions.
- **Introduction to coding using 2Go using functionality keys** - To understand the functionality of basic direction keys. To be able to use the direction keys.
- **Introduction to coding using 2Go recording instructions** – To write a program and test it.
- **Using coding to set challenges** – To set a challenge for a peer.

Summer

Topic: Unit 1.8 - Spreadsheets

- **Introduction to Spreadsheets** - To understand what a spreadsheet looks like. To be able to navigate around a spread sheet and enter data. To learn new vocabulary related to spreadsheets
- **Adding Images to a Spreadsheet and Using the Image Toolbox** - To add clipart images to a spreadsheet. To use the 'move cell' and 'lock' tools.
- **Using the 'Speak' and 'Count' Tools in 2Calculate to Count Items** - To use the 'speak' and 'count' tools in 2Calculate to count items.

Topic: Unit 1.6 - Animated Story Books

- **Drawing and Creating** - To understand the differences between traditional books and e-books. To explore the tools of 2Create a Story's My Simple Story level. To save the page they have created.
- **Animation** - To add animation to a picture. To play the pages created so far. To save the additional changes and overwrite the file.
- **Sounds and More!** - To add a sound effect to a picture. To add a voice recording to the picture. To add created music to the picture
- **Making a Story** - To add a background to the story. To demonstrate a good understanding of all the tools they have used in 2Create a Story and use these successfully to create their own story
- **Copy and Paste** - To use the copy and paste feature to create additional pages. To continue and complete an animated story. To create a class display board of the story books created by the class.

Topic: Unit 1.9 - Tech Outside School

- **What is Technology?** - To find and understand examples of where technology is used in the local community.
- **Technology outside school** - To record examples of technology outside school.

Year 2

Autumn

Topic: Unit 2.1 – Coding

- **Update avatar and Algorithms** - To understand what an algorithm is. To create a computer program using an algorithm.
- **Collision Detection** - To create a program using a given design. To understand the collision detection event.
- **Using a Timer** - To understand that algorithms follow a sequence. To design an algorithm that follows a timed sequence.
- **Different Object Types** - To understand that different objects have different properties. To understand what different events do in code.
- **Buttons** - To create a program using a given design. To understand the function of buttons in a program.
- **'Smelly Code' Debugging** - To know what debugging means. To understand the need to test and debug a program repeatedly. To debug simple programs.

Topic: Unit 2.7 – Making Music

- **Introducing 2Sequence** - To be introduced to making music digitally using 2Sequence. To explore, edit and combine sounds using 2Sequence.
- **Making Music** - To add sounds to a tune to improve it. To think about how music can be used to express feelings and create tunes which depict feelings.
- **Soundtracks** - To upload a sound from a bank of sounds into the Sounds section. To record their own sound and upload it into the Sounds section. To create their own tune using the sounds which they have added to the Sounds section.

Spring

Topic: Unit 2.2 Online Safety

- **Searching and sharing** - To refine searches using the Search tool on Purple Mash. To know how to share work.
- **Email using 2Respond** - To know that Email is a way to communicate. To open and send online communication in the form of an email.
- **Digital Footprint** - To understand what a digital footprint is. To identify how to keep personal data and hardware secure.

Topic: Unit 2.5 Effective Searching

- **Understanding the Internet and Searching** - To understand the terminology associated with the Internet and searching.
- **Searching the Internet** - To gain a better understanding of searching the Internet.
- **Sharing Knowledge of the Internet and Effective Searching** - To create a leaflet to help someone search for information on the Internet.

Topic: Unit 2.8 Presenting Ideas

- **Presenting a Story Three Ways** - To explore how a story can be presented in different ways.
- **Presenting Ideas as a Quiz** - To make a quiz about a story or class topic.
- **Making a Non-Fiction Fact File** - To make a fact file on a non-fiction topic.
- **Making a Presentation** - To make a presentation to the class.

Summer

Topic – 2.4 Questioning

- **Using and Creating Pictograms** - To show that the information provided on pictograms is of limited use beyond answering simple questions
- **Asking Yes / No Questions** - To use yes/no questions to separate information
- **Binary Trees** - To construct a binary tree to separate different items.
- **Using 2Question - a ComputerBased Binary Tree Program** - Use 2Question (a binary tree) to answer questions
- **Using 2Investigate: a NonBinary Database** - To use a database to answer more complex search questions. • To use the Search tool to find information.

Topic 2.6 – Creating Pictures

- **Introduction and Impressionism** - To explore 2Paint A Picture. • To look at the work of Impressionist artists and recreate them using the Impressionism template

- **Pointillist Art** - To look at the work of pointillist artists such as Seurat. • To recreate pointillist art using the Pointillism template.
- **Piet Mondrian** - To look at the work of Piet Mondrian and recreate it using the Lines template
- **William Morris and Pattern** - To look at the work of William Morris and recreate it using the Patterns template
- **Surrealism and eCollage** - To look at some surrealist art and create your own using the eCollage function in 2Paint A Picture

Leading Computing

Curriculum Implementation:

Overarching Targets: **Key priorities in SIP 2023/24:**

Priority 1 – Continue to ensure that all pupils, including those with special educational needs and disabilities (SEND) and the lowest 20%, achieve as highly as possible across the curriculum.

Priority 2 – Continue to ensure that summative and formative assessments are strong across all areas of the curriculum.

Priority 3 – Safeguarding and attendance.

Priority 4 – ‘Growing our staff’, focusing on consolidating new positions and roles post key staff changes, staff training and new initiatives.

As curriculum leaders, we have continued to monitor and assess the implementation and impact of the teaching of computing across the school through a cycle of:

- work scrutiny and moderation
- collecting pupil voice through lesson visits and meeting with pupils
- display and resource monitoring
- subject and photograph evidence file updates
- subject leader interviews with head teacher and computing link-governor
- curriculum leader reports to governors
- curriculum journeys, curriculum maps and children’s computing learning are communicated to parents via the school website and newsletters

At the start of the school year, September 2023, the curriculum map and journey were updated to ensure that they continue to reflect the newly introduced scheme of work that has been introduced in KS1 and any additional changes to the EYFS curriculum. The key vocabulary has also been updated with the new topics taught. All year groups continue to discuss the key vocabulary with staff in the classrooms before starting a new topic so that all staff can model the correct subject vocabulary. Planning continues to be emailed to year group staff. This has ensured that any gaps in the progression of skills and knowledge can be addressed while still maintaining our enriching spiral curriculum with a strong thread of continuity that runs throughout the school.

Computing continues to be taught as an embedded part of the creative curriculum, as well as explicitly taught skills using the Purple Mash scheme of work. This cohesive combination brings the curriculum to life for the pupils because it makes the learning meaningful within different contexts. There are many examples of pupils using computing to support their learning; for example, Reception have used iPads to photograph signs of spring. This is linked to this year’s science week and changes over time. Year 1 have made bar charts through Purple Mash to record favourite fruit eaten and Year 2 used their knowledge on slugs and snails in English to create a multiple choice quiz using 2Quiz in Purple Mash. Photographic evidence is collated and kept in the photographic evidence book.

As we continue through our rolling programme of updating computing stock, new interactive whiteboards have been installed in each classroom, a new class set of iPads purchased for use in KS1 and a class set of headphones purchased for Year 2 to support the music module.

Impact:

As a school Purple Mash is well embedded as the scheme of work within the school. We have a robust curriculum with tightly spiraled progression of both knowledge and skills which can be clearly mapped. Curriculum leads will talk to staff at the end of the year to gain feedback on the success of each unit taught.

What is the quality of teaching across the school in computing?

Regular observations ensure that: quality first teaching and consistency across each year group is evident; learning is building on previously learnt skills and knowledge; deployment of teaching assistants, ensuring that they support pupils to bridge any gaps in their learning so that pupils secure their skills and understanding of computing; effective use of technology and other resources.

Computing observations are booked in to take place across the school throughout the school year across the year groups. The curriculum leads have observed in Year 1 and Reception to date and collected evidence throughout eSafety week.

In order to verify the explicit teaching of key vocabulary, a book look for Year 1 took place in the autumn term. The curriculum lead spoke with several Year 1 pupils and was able to check the vocabulary being used and the children's understanding of algorithms. On a separate occasion, it was a particularly useful exercise as it highlighted how confident the children were able to showcase their work on eSafety.

What has been done over the past year to improve standards?

Our computing curriculum is high quality, well thought out and is planned to demonstrate progression using the national curriculum and Purple Mash. If pupils are keeping up with the curriculum, they are deemed to be making good or better progress. In addition, we measure the impact of our curriculum through mapping against age-related expectation (ARE) using the new assessment tool.

Y1 Teacher Progression Overview: N.C. Statements and skills & knowledge



	Computer Science			Information Technology	Digital Literacy	
Statement	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.	Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	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.
Outcome	Children understand that an algorithm is a set of instructions used to solve a problem or achieve an objective. They know that a computer program turns an algorithm into code that the computer can understand.	Children can work out what is wrong with a simple algorithm when the steps are out of order, e.g. The Wrong Sandwich in Purple Mash and can write their own simple algorithm, e.g. Colouring in a Bird activity. Children know that an unexpected outcome is due to the code they have created and can make logical attempts to fix the code, e.g. Bubbles activity in 2Code.	When looking at a program, children can read code one line at a time and make good attempts to envision the bigger picture of the overall effect of the program. Children can, for example, interpret where the turtle in 2Go challenges will end up at the end of the program.	Children are able to sort, collate, edit and store simple digital content e.g. children can name, save and retrieve their work and follow simple instructions to access online resources, use Purple Mash 2Quiz example (sorting shapes), 2Code design mode (manipulating backgrounds) or using pictogram software such as 2Count.	Children understand what is meant by technology and can identify a variety of examples both in and out of school. They can make a distinction between objects that use modern technology and those that do not e.g. a microwave vs. a chair.	Children understand the importance of keeping information, such as their usernames and passwords, private and actively demonstrate this in lessons. Children take ownership of their work and save this in their own private space such as their My Work folder on Purple Mash.

Y2 Teacher Progression Overview: N.C. Statements and skills & knowledge



	Computer Science			Information Technology	Digital Literacy	
Statement	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.	Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	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.
Outcome	Children can explain that an algorithm is a set of instructions to complete a task. When designing simple programs, children show an awareness of the need to be precise with their algorithms so that they can be successfully converted into code.	Children can create a simple program that achieves a specific purpose. They can also identify and correct some errors, e.g. Debug Challenges: Chimp. Children's program designs display a growing awareness of the need for logical, programmable steps.	Children can identify the parts of a program that respond to specific events and initiate specific actions. For example, they can write a cause and effect sentence of what will happen in a program.	Children demonstrate an ability to organise data using, for example, a database such as 2Investigate and can retrieve specific data for conducting simple searches. Children are able to edit more complex digital data such as music compositions within 2Sequence. Children are confident when creating, naming, saving and retrieving content. Children use a range of media in their digital content including photos, text and sound.	Children can effectively retrieve relevant, purposeful digital content using a search engine. They can apply their learning of effective searching beyond the classroom. They can share this knowledge, e.g. 2Publish example template. Children make links between technology they see around them, coding and multimedia work they do in school e.g. animations, interactive code and programs.	Children know the implications of inappropriate online searches. Children begin to understand how things are shared electronically such as posting work to the Purple Mash display board. They develop an understanding of using email safely by using 2Respond activities on Purple Mash and know ways of reporting inappropriate behaviours and content

All pupils have access to a variety of online resources, including Numbots, Purple Mash and Bug Club. Class teachers ensure that pupils receive log in details and that activities are loaded onto the programmes. For example Purple Mash is used as a tool to support the homework in KS1 in addition to class work. Opportunity is given to use these online tools during the school day, at regular intervals throughout the school year. Class teachers also

use these resources as a teaching resource to promote reading, maths and other curriculum subjects. Parents are directed to these resources through termly newsletters and the yearly parents meeting.

Staff have worked collaboratively to update key vocabulary based on Purple Mash. Displays are regularly updated and seen in all classrooms, with a focus on eSafety. Updates include children’s work, photographs and pupil voice.

E-Safety

E-Safety continues to be at the heart of our computing curriculum and is revisited every term as well as taught alongside many of our cross-curricular topics. With our current scheme, each computing module in key stage one begins with an eSafety activity and discussion about keeping safe online. Each classroom has a display of agreed eSafety rules and the parents receive a home school agreement, which they are asked to discuss with their child.

The curriculum lead sends monthly eSafety newsletters out to all parents keeping them up to date with current eSafety issues. The curriculum lead attended a webinar with National College looking at a range of packages on offer for high quality eSafety training.

All staff have been asked to complete the online safety training by spring 2024.

In February, we all took part in e-Safety week. The whole school offered a range of e-Safety learning activities and pupils were keen to share their knowledge and understanding of how important it is to stay safe online. Additional eSafety resources were also sent home to parents during this week. These can also be found on the school website.

Safer Internet Day – 6.2.24 Pupil Voice	
Reggie	My Mum, Dad and Nanny are my trusted grownups. I can tell a trusted grown up if I feel worried.
Parth	In the story Mo and Jaz felt worried, scared and upset by what they saw online.
Lennox	I love to search online for information all about amphibians.
Teddy	I learnt from the story that you must switch it off and tell someone.
Amelia	I will tell a trusted adult if I feel worried.
Juliette	Miss O’ Regan and Mrs Edwards are my trusted adults.

Bela-Saffiya	I loved playing Purple Mash.
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Key stage 1 data 2023

Staff received training on using the new assessment tool as part of Purple Mash. KS1 teachers learnt how to use the interactive tool to carefully assess their pupils in each of the topics taught. Data from this will be collated mid March and again in July. Staff also attended a foundation subject assessment course, to ensure tracking of all skills across the year groups. Computing will be looked at by staff in June 2024.

Moving forward: Actions for 2023/24

- Work alongside the business manager to look at rolling programme for stock and agree new purchases.
- Attend cluster meetings with other Stevenage schools.
- Increase parent eSafety newsletters and workshops.
- Complete computing assessment overview.
- To continue with a robust monitoring schedule, including:
 - observations of teaching and learning
 - planning scrutiny
 - work sampling
 - moderation of teacher assessments
 - activities to seek the views of pupils
 - monitoring of displays

Kerrhys Edwards & Alexandra Busby – curriculum leaders for computing
March 2024 Review date: March 2025

