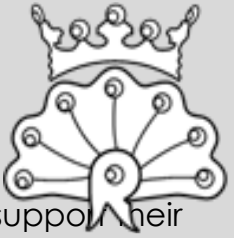SUBJECT LEADER IMPACT REPORT
COMPUTING
2022-2023

Together **E**veryone **A**chieves **M**ore

INTENT

Our Curriculum intent at Corsham Regis is embedded in the computing skills we teach our pupils and the ways in which we use technology to support their learning in other subject areas.

How to communicate using appropriate vocabulary

Computers are now part of everyday life. 'Computational thinking' is a skill children must be taught if they are to be ready for the workplace and able to participate effectively in this digital world.

Talk, through discussion, forms the basis for much learning at school and computing is no different. During every lesson, children are given the opportunity to talk about what they are doing, and the skills and knowledge they are learning. They are introduced to the technical vocabulary of computing hardware and software, and the internet world, including reference to the latest slang used in social communications.

About Corsham and the local area

During our local area studies, children make use of computing to research information about Corsham and the surrounding area. They are able to communicate their learning digitally using different media. Google Earth allows them to gain a visual understanding into the physical variation between town, county, country and the world. Online tours give them the opportunity to explore local places such as the Roman Baths and look at historical evidence, while present online maps allow them to compare the local environment now and in the past.

Through experience inside and beyond the classroom

Virtual technology allows children to see, explore and even "visit" places outside the classroom that the children would not otherwise see. During our geography topics, children have used Google Earth to see the physical and human landscapes of other countries, towns and cities. They can research places which they could not possibly travel to and experience the sights, sounds and atmosphere of places in the present and even in the past. This helps to bring our topics alive and helps to give them an experiential learning which would not be possible without the use of modern technology.

New knowledge and understanding appropriate to their age

Teachers follow the National Curriculum for Computing and the Early Learning Goals for Early Years Foundation Stage. Chris Quigley's Essential Milestones are taught progressively through each year group using a range of communication, coding, data collection and presentation software and hardware. This ensures children add to, and build on, their learning and skills year on year.

How to keep themselves safe

Teaching children about E-safety / Online Safety is an important part of primary education and a compulsory objective in the National Curriculum. Children are taught how to keep digitally safe, what to do if they suspect something is not safe or not what it seems, and the importance of not sharing personal information. They learn how to be digitally responsible citizens and are taught about the dangers of online bullying as well as the importance of posting things online in a sensitive and respectful manner. This learning is taught explicitly through discrete "internet safety" lessons in class and incidentally through reference to safe internet use throughout all computing lessons. Termly assemblies on digital safety also ensure that it is at the forefront of children's minds. Corsham Regis also helps to educate the parents & carers about the risks of modern technology and the importance of age appropriate exposure for the children. Communications about how to stay safe are regularly posted online and families are directed to these.

IMPLEMENTATION

Computing themes

Autumn	Spring	Summer
To collect	**To communication**	**To code**
To collect, organise, manipulate and present information, developing an understanding of databases and their uses.	To communicate ones ideas using a variety of apps and devices (throughout the curriculum)	To programme using skills in instruction, logic and sequence.
To connect –		
To connect with others respectfully and safely online, understanding the legal, moral and ethical implications and issues surrounding online use. (Also, to understand the connected nature of devices)		

THE TEACHING OF COMPUTING IS DIVIDED INTO FOUR MAIN THEMES. THESE ARE SPLIT UP, WITH ONE BEING FOCUSED ON EACH TERM AND THE "CONNECT" THEME (CONTAINING THE TEACHING OF INTERNET SAFETY AND ONLINE ISSUES) RUNNING THROUGHOUT THE YEAR.

IMPLEMENTATION

Computing

Essential opportunities Key stage 1	Essential opportunities Key stage 2
Pupils should be taught to – • Understand algorithms and how they are made using digital devices. • Create simple algorithms and programs that follow a sequence of instructions. • Write and test simple programs. • Use logical reasoning to predict the behaviour of simple programs. • Organise, store, manipulate and retrieve data in a range of digital formats. • Recognise common uses of information technology beyond school. • Communicate safely and respectfully online, keeping personal information private and recognise common uses of information technology beyond school.	Pupils should be taught to – • Design and write programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. • Use sequence (ordering) and repetition (repeated instructions) in programs; work with variables (if...then...) and various forms of input and output; generate appropriate inputs and predicted outputs to test programs. • Use logical reasoning to explain how simple algorithm works, detect and correct errors in algorithms and programs (debugging). • Understand computer networks including the internet; how they can provide multiple services, such as the World Wide Web; and the opportunities they offer for communication and collaboration. • Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. • Select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information. • Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Essential Learning Objectives		Milestone 1 End of Year 2	Milestone 2 End of Year 4	Milestone 3 End of Year 6
Programming (Using Bee bot App, Scratch)	Motion	Control motion by specifying the number of steps to travel, direction and turn (Beebots)	Use specified screen coordinates to control movement. (Scratch)	Set IF conditions for movements. (IF....THEN....) (Scratch)
	Looks	Add text strings, show and hide objects and change the features of an object. (Scratch)	Set the appearance of an object in a program (Scratch)	Change the position of objects between screen layers (send to back, bring to front). (Scratch)
	Sound	Select sounds and control when they are heard, their duration and volume (Scratch)	Create and edit sounds. Control when they are heard, their volume and duration. (Scratch).	Create and edit sounds. Control when they are heard, their volume and duration. (Scratch).
	Draw	From year 3 onwards.	Create drawings and set the pen colour, size, shape and shade. (Scratch)	Use pens with movement to create interesting effects.
	Events	Specify user inputs (such ask clicking on an icon) to control events. (Scratch)	Specify conditions to trigger events (Scratch)	Set events to control other events by "broadcasting" information as a trigger (Scratch)
	Control	Specify the nature of events (a single event or a loop). Beebot	Use IF THEN conditions to control events or objects (Scratch)	Use IF....THEN conditions to control events or objects.
	Sensing	Create conditions for actions by waiting for a user input. (Beebot and Scratch)	Create conditions for actions by sensing proximity or by waiting for a user input (such as proximity to a specified colour or a line or responses to questions) (Scratch)	Use a range of sensing tools (including proximity, user inputs, loudness and mouse position) to control events (Scratch)
	Operators	From year 5 onwards.		Use a range of formula in Excel to represent changes in data between cells. (Excel)

Connect	• Understand online risks and the age rules for sites (E-Safety). • Send and receive emails as a class. • Use a range of applications and decides in order to communicate ideas, work and messages (Email, zoom)	* Give examples of risks posed by online communicators. * Understand the term "copyright" * Understand that comments made online that are hurtful or offensive are the same as bullying. * Understand a range of online services and how they work.	* Collaborate with others online (email other schools using class email?) * Give examples of the risks of online communities and demonstrate knowledge of how to minimise risk and report problems. * Understand and demonstrate knowledge that it is illegal to download copyrighted material, including music or games, without express permission, from the copyright holder. * Understand how simple networks are set up and used. * Choose the most suitable applications and devices for the purposes of communication.

Essential Learning Objectives	Milestone 1 End of Year 2	Milestone 2 End of Year 4	Milestone 3 End of Year 6
Communicate	• Generate and communicate ideas using a variety of programs and apps. (Publisher, Word, Excel)	• Use some of the advanced features of programs and apps in order to communicate ideas, work or messages. (Publisher, Word, Excel)	• Use many of the advanced features in order to create high quality, professional or efficient communications. (Publisher, Word, Excel)
Collect	• Use tables in Word and Infant Video Toolkit to record data collected across the curriculum.	• Record and present numerical data using Excel in areas across the curriculum.	• Use Excel to devise, construct and manipulate data and present it in an effective and professional manner.

ONCE TEACHERS KNOW WHICH THEME THEY ARE TEACHING IN EACH TERM, THEY USE THIS DOCUMENT, WHICH I CREATED AND WHICH IS BASED ON THE CHRIS QUIGLEY MILESTONES. THIS INFORMS PLANNING AND ENSURES PROGRESSION THROUGH THE YEAR GROUPS AND A COVERAGE OF THE COMPUTING CURRICULUM.

IMPLEMENTATION

Year group	Autumn term	Spring term	Summer term
Year 1	**Collect** Record data using 2graph and 2question.	**Connect** Understand online risks and the age rules for sites (E.safety).	**Code** Control motion by specifying the number of steps to travel, direction and turn. (2go, Beebots) Specify user inputs (such as clicking on an icon) to control events. (2go, Beebots) Specify the nature of an event (a single event or a loop) (2go, Beebots)
	Communicate Generate and communicate ideas using a variety of programmes (cross curricular links) (2Paint, 2Publish)		

Year 2	**Collect** Record data using 2graph, 2question and Word.	Understand online risks and the age rules for sites (E.safety). Send and receive e.mails as a class and use a range of applications in order to communicate ideas, work and messages (email and zoom).	**Code** Add text strings, show and hide objects and change the features of an object. Select sounds and control when they are heard, their duration and volume. (Scratch)
	Communicate Generate and communicate ideas using a variety of programmes (cross curricular links) (2Paint, 2Publish, Word, Powerpoint)		
Year 3	**Collect** Record and present numerical data using Excel (using data collected in areas across the curriculum)	**Connect** Understand that comments made online that are hurtful or offensive are the same as bullying. Understand a range of online services and how they work.	**Code** Set the appearance of an object in a program. Create and edit sounds. Specify conditions to trigger events. Use IF THEN conditions to control events or objects. (Scratch)
	Communicate Generate and communicate ideas using a variety of programmes (cross curricular links) (Word, Powerpoint, Publisher – use advanced features (changing font and design)		

Year 4	**Collect** Record and present numerical data using Excel (using data collected in areas across the curriculum)	**Connect** Give examples of risks posed by online communicators. Understand the term "copyright".	**Code** Use specified screen coordinates to control movement. Create drawings and set the pen colour, size, shape and shade. Specify conditions to trigger events. Use IF THEN conditions to control events or objects. (Scratch)
	Communicate Generate and communicate ideas using a variety of programmes (cross curricular links) (Word, Powerpoint, Publisher – use advanced features (transitions and animations.		

Year 5	**Collect** Devise, construct and manipulate data and present it in an effective and professional manner. (Using Excel)	**Connect** Give examples of the risks of online communities and demonstrate knowledge of how to minimise risk and report problems. Choose the most suitable applications and devices for the purposes of communication. Understand how simple networks are set up and used.	**Code** Create a edit sounds. Control when they are heard and their volume. Use pens with movement to create interesting effects.
	Communicate Generate and communicate ideas using a variety of programmes (cross curricular links) (Word, Powerpoint, Publilsher – use advanced features (transitions and animations) in an effective and professional manner.		

Year 6	**Collect** Devise, construct and manipulate data and present it in an effective and professional manner. (Using Excel)	**Connect** Collaborate with others online (email other schools using class email?) Understand and demonstrate knowledge that it is illegal to download copyrighted materials without permission from the copyright holder.	**Code** Set IF THEN conditions for movement and to control events or objects. Set events to control other events by "broadcasting" information as a trigger. Change the position of objects between screen layers (send to back, bring to front). (Scratch)
	Communicate Generate and communicate ideas using a variety of programmes (cross curricular links) (Word, Powerpoint, Publilsher – experiment with all features, transition and animations in an effective manner to create a professional and polished look.		

THESE EXTRA PLANNING AIDS, WHICH I CREATED LAST YEAR, HELP MAKE IT CLEAR TO TEACHERS WHAT TO TEACH EACH TERM (BASED ON THE TERMLY THEMES AND THE CHRIS QUIGLEY OBJECTIVES. IT ALSO GIVING TEACHERS IDEAS OF THE PROGRAMMES THEY SHOULD USE. THIS ENSURES PROGRESSION OF THE TYPES OF PROGRAMMES CHILDREN ARE USING AS THEY MOVE THROUGH THE YEAR GROUPS.

IMPLEMENTATION

Milestone Subject Assessment Overview 2022-2023

Corsham Regis Primary Academy

Class: Year group: Total number:

PP: SEN: Bottom 20% readers:

Subject	Working within Milestone 1		Working within Milestone 2		Working within Milestone 3		Percentage		
	Working **below** for year group	Working **above** for year group	Working **below** for year group	Working **above** for year group	Working **below** for year group	Working **above** for year group	Below	Expected	Above
Science									
History									
Geography									
DT									
Art									
Music									

THE NEWLY CREATED SUBJECT ASSESSMENT GRIDS ENABLES US TO EFFICIENTLY TRACK WHAT WE ARE TEACHING AND MONITOR THOSE THAT ARE EXCEEDING OR NOT MEETING EXPECTATIONS. THIS INFORMS FUTURE PLANNING AND ENSURES FUTURE TEACHERS KNOW EXACTLY WHERE THE CHILDREN ARE WHEN THE MOVE INTO THEIR CLASS.

IMPLEMENTATION

IN JUNE, MR FLETCH CAME INTO SCHOOL DURING MY COMPUTING STAFF MEETING. HE DELIVERED SOME FANTASTIC TRAINING ON HOW TO TEACH AND USE SCRATCH – GIVING US SOME GREAT IDEAS OF HOW TO USE THE MORE SOPHISTICATED FUNCTIONS. WE WILL USE THIS IN OUR TEACHING. EXTRA STAFF TRAINING ON HOW TO TEACH CODING WAS SOMETHING WHICH CAME UP ON MY STAFF AUDIT SO THIS SESSION WAS ESPECIALLY PERTINANT.

PROVISION

OUR DEDICATED COMPUTING SUITE AND A WEEKLY TIMETABLE ENSURES THAT ALL CLASSES ARE ALLOCATED TWO COMPUTING SLOTS IN THE SUITE EACH WEEK. TEACHERS TEND TO USE ONE FOR TEACHING DEDICATED COMPUTING SKILLS AND THE OTHER FOR CONSOLIDATING LEARNING IN OTHER SUBJECTS USING INTERACTIVE TECHNOLOGY E.G. MATHELETICS, TT ROCKSTARS, USING GOOGLE CHROME TO RESEARCH TOPIC AREAS OR USING POWERPOINT OR WORD TO COMMUNICATE OUR LEARNING.

PROVISION

Children use a variety of digital technology throughout the school. Much of their work done in in the computer suite is saved into their class folder. This evidence, along with what I witness and pupil interviews, allows me to see the work they are doing in computing. Some examples of interactive technology used are -
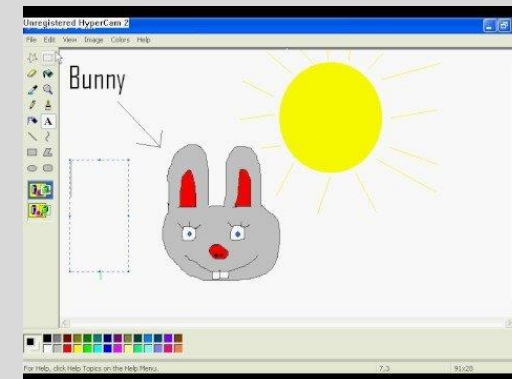
EYFS and Key Stage I

Beebots (robotic bees which they programme to move around set routes)

Using cameras and I. Pads

Using chrome books (Year 1 and 2)

A variety of programmes are used in the computing suite (including, but not limited to, 2 Simple City, PowerPoint, Word, Publisher, 2paint, J2 data, google chrome, matheletics, top marks and cool maths).

PROVISION

- Key Stage II

- Year 6 used Lego Robotics during their WOW day, using an outside provider

- Using cameras, I. Pads and other digital equipment to provide sound and picture in our assemblies and shows. Also, Chrome books

- A variety of programmes are used in the computing suite (including, but not limited to, PowerPoint, Word, Publisher, Excel, google chrome, matheletics, top marks, cool maths, TT Rock Stars.

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PROVISION

MR FLETCHER, FROM CORSHAM SCHOOL, HAS WORKED WITH YEAR 6 FOR THE AUTUMN TERM EACH YEAR. LAST YEAR HE ALSO WORKED WITH THE YEAR 3,4 AND 5 PUPILS. HE HAS TAUGHT THEM HOW TO CREATE AND USE DATABASES AND THIS HAS PROVIDED THE CHILDREN WITH FIRST CLASS TEACHING AND PROVIDED CPD FOR OUR TEACHERS.

Termly assemblies led by myself which recap what the children have learnt and cover any current topics or trends regarding internet safety.

At least one discrete lesson on Internet Safety is taught by teachers every term, following the Chris Quigley objects and keeping it relevant to their age group.

Internet Safety

An annual Internet Safety day – concurring with the national event and using their theme and resources – takes place in school. This year it took place on 7th February and the theme of "want to talk about it?" encouraged children to always share concerns about computer safety or worries and helped them think about who they could talk to.

▶ My visit to another school last year, allowed me to investigate what scheme they use. I was able to magpie some ideas for assessment and they also pinpointed me to some great, free on-line resources which I was able to pass on to staff.

Meeting with Sally (Computing Co-ordinator)

The school use "Teach Computing" scheme—FREEEEEEE!

Has planning, assessment, slides and full coverage!

School assessment is assessment by omission—only comment on those below and above expected level. In a grid with strand and objectives for each term and then—and + Bit like this...
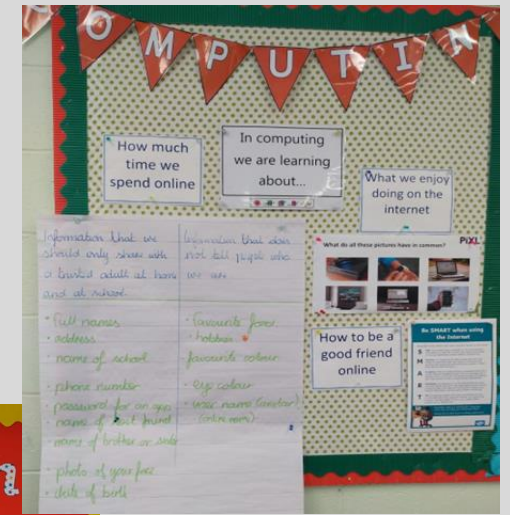
Strand	Objective	-	+
Coding	Put in objective for that term	Initials of those below	Initial of those above

For teaching of Internet Safety they use "Project Evolve" - another free scheme!

EVIDENCE

All classrooms have an ICT display which shows the work they are doing that term. This reminds children what they are learning and acts as a monitoring tool for me.

I also interviewed children from each year group each term and monitored what was saved into the class folders on the school drive. This allowed me to investigate what computing work was being done and my observations were fed back to staff with praise for what was working well and suggestions for next steps.

The staff audit also acted as another source of information gathering on what staff felt confident teaching and what they needed further support with. This year, my audit pinpointed the need for more training on how to teach coding and this influenced Mr. Fletcher's visit and training session.

IMPACT

End of year assessment data shows that there was a percentage of around 25% of children who were below expected level in Key Stage 1 and year 3, the majority of these are SEN. By the time children reach Upper Key Stage 2, this data has changed and the end of year data for Key Stage 2 showed that no children were working below expected level in computing and 25% were working above expected level. From the quality of work I have seen, pupil interviews and the lessons that Mr Fletcher took, this is not surprising to me. The lower levels at Key Stage 1 are reflective of the fact that a lot of children do not have computers at home and if they do, they tend to be used for playing games rather than the learning of computer skills. A future focus on how to bridge the gap for SEN children will need to be considered in future – to ensure they are not falling behind and have an equal opportunity to achieve greater depth by the time they leave Regis.

CHILDREN'S VOICE – KEY STAGE I

Don't meet with people online that you don't know.
(Arlo, Year 2)

Computing is fun. It helps you learn more.
(Freya, Year 2)

Never give information about yourself on the computer
(Suzanna, EYFS)

Don't give out any information about yourself.
(Olivia, year 1)

It feels different in the computing room. It's more peaceful.
(Emily, year 1)

CHILDREN'S VOICE – KEY STAGE II

Tell a trusted adult if something pops up.
(Lexi-Mai, Year 4)

Stick to what you should be looking at.
(Ablie, Year 4)

I prefer learning in the computer suite. It's more fun. It's my favourite lesson.
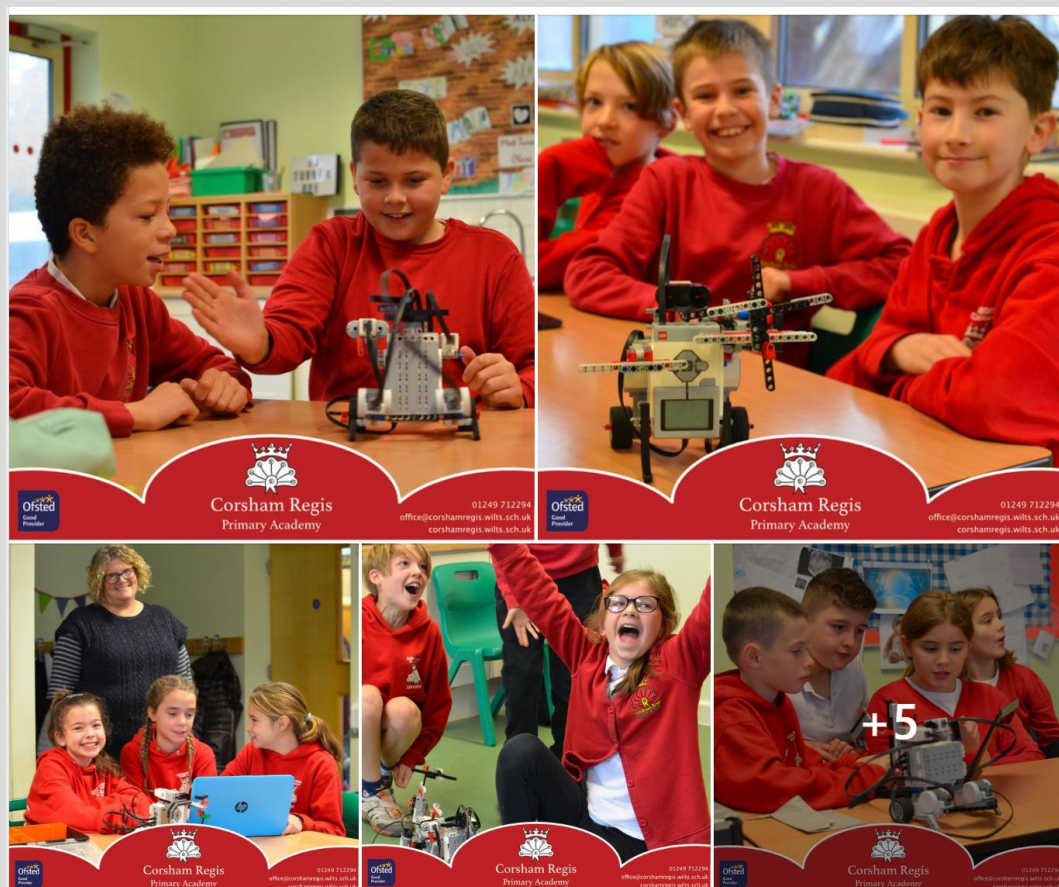(Eli, year 3)

I really like coding. Scratch is brilliant.
(Nelson, year 5)

Mr Fletcher was cool teaching us Excel.
(Alfie, year 6)

Wow! Turner class had their amazing workshop as part of their profound learning with PrepareRobo UK

The children built robots and then used coding to programme their robots to battle!

Every day individuals are subject to more and more interactive information than ever before.

We teach computing to help equip students with the skills, confidence and competences to become independent and successful learners and to allow them access to current and future technologies. With the variety of computing resources, the dedicated computing suite and weekly (often twice weekly) lessons, we know we are providing this for our children.

We will continue to reach high with our aspirations in computing. Next year, I intend to find more ways to integrate ways to integrate computing and interactive technology into other subjects in order to showcase children's learning in children's learning in these areas and consolidate what they have learnt. I will also research more resources (to aid more resources (to aid planning, teaching and apps the children can use).

"When you are learning things on the computer, it is more helps you