

# SUBJECT LEADER IMPACT REPORT COMPUTING

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# INTENT

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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 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, country, 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.

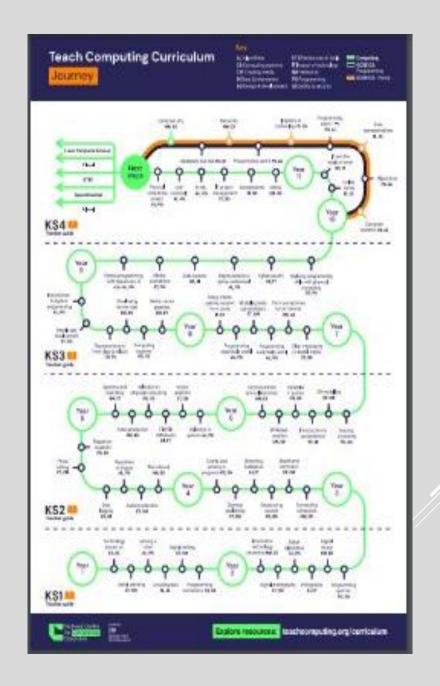
#### New knowledge and understanding appropriate to their age

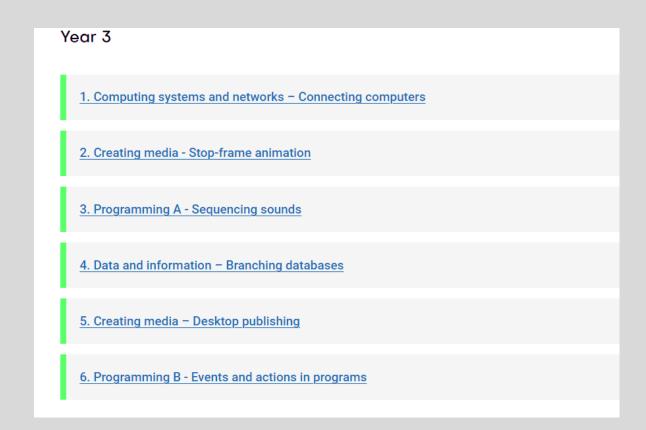
Teachers follow the National Curriculum for Computing and the Early Learning Goals for Early Years Foundation Stage. Chris Quigley's Essential Milestones are taught progressively through each year group using a range of communication, coding, data collection and presentation software and hardware. This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

HAVING TRIALLED IT AT THE END
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THE SCHEME BREAKS THE COMPUTING CURRICULUM DOWN INTO TERMLY TOPICS AND IT PROVIDES EXCELLENT RESOURCES, SLIDES AND SIGNPOSTS TEACHERS TO THE BEST PROGRAMMES TO USE FOR THE DIFFERENT TOPICS.

AT THE START OF THE YEAR, A NEW COMPUTING PROGRESSION GRID WAS CREATED WHICH MATCHES THE OBJECTIVES FROM THE RECENTLY IMPLEMENTED "TEACH COMPUTING" SCHEME. THIS ALLOWS TEACHERS TO SEE, AT A GLANCE, THE KEY OBJECTIVES FOR EACH COMPUTING ELEMENT FOR KEY STAGE 1, LOWER KEY STAGE 2 AND UPPER KEY STAGE 2. THIS WILL AID TEACHING AND ASSESSMENT.



#### Computing

These 5 intentions underpin our curriculum because we want our pupils to have a love of learning which they can share, a sense of understanding and pride of where they live, and be safe in different situations.

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How to keep themselves safe



These The essential skills and knowledge that we want our pupils, through our scheme "Teach Computing", to learn by the end of:

EYFS	KS1
Personal, Social and Emotional Development – show resilience and perseverance in the face of a challenge. Know and talk about the different factors that support their overall health and wellbeing – sensible amounts of "screen time".  Physical Development – develop their fine motor skills so that they can use a range of tools competently, safely and confidently.  Expressive Art and Design – explore, use and refine a variety of artistic effects to express their ideas and feelings.	Programming – moving a robot (Beebots), introduction to animation (Scratch), control, sensing and variables in a game (Scratch)  Data and information – pictograms, graphs and spreadsheets.  Creating media ¬, CONTOUDING
LKS2	UKS2
Programming – create and edit sounds, IF/THEN conditions, sensing, sontrol movement using screen co-ordinates. Data and information – branching databases and data logging (Excel). Creating media – Design, communicate, present and edit ideas, work or messages (desktop publishing, autolio, editing, photo editing). Computer systems and networks – copyright, online bullying, computing systems and networks, online risks.	Programming – IF/THEN conditions, create and edit sound, set events, sensing.  Data and information – devise, construct and manipulate data using fact-file databases and spreadsheets  Creating media – Design, communicate, present and edit ideas, work or messages using advanced features (vector drawing, video editing, 3d modelling).



#### Computing

Strong Foundations	Online Safety
Our Computing for EYFS is centred around play-based, activities that focus on	We teach online safety to all children and through our scheme 'Teach Computing'
children's listening skills, curiosity, creativity and problem solving.	and have termly assemblies about staying safe online to further address ways to
Technology in the Early Years can mean:	keep ourselves safe and who we report to if we feel unsafe, as part of our PSHE
-Taking a photograph with a camera or tablet	curriculum and safeguarding assemblies. We encourage children to use SMART
-Playing games on the interactive whiteboard/ computers/i_pads	acronym from Childline as an opening point for online safety discussions. Annually,
-Exploring mechanical toys	we welcome to school our local PCSO to deliver age- appropriate social media talks
-Using a Beebot	to children from Yr2 to Year 6 alongside a programme delivered through Up and
-Watching a video clip	Under called Healthy Heroes which addresses being healthy online and encourages
-Listening to music	discussions around screen time.
Range of Resources	Awareness Days
The children learn to use a range of electronic and practical resources such as: iPads,	In February, we celebrate Safer Internet Day. The children listen to an assembly,
chrome books, laptops, desktop computing, microbits and Beebots.	participate in discussions around safety within online video games and complete
	activities and quizzes.



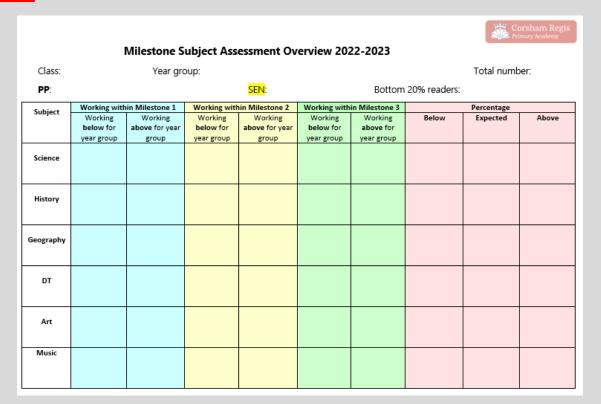
As a digital citizen leaving Regis, every child will have the skills to:

\*reflect upon their learning and the impact that computing has on their learning, development and wellbeing.

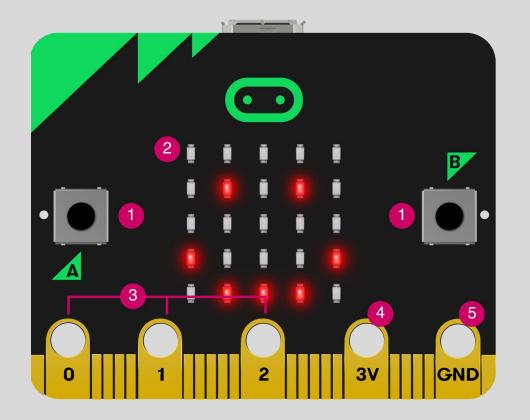
- \* be confident in using technology and be ready for the next steps on their journey into the digital world.
- \* have a wide computing vocabulary and use this technical language not only in computing lessons but also in other subjects.
- \* know how to be safe online and be able to make positive choices to keep themselves safe while also being aware of what to do if they feel unsafe, worried or concerned.

\*have an understanding of how computing impacts their daily life and the wider community

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THE SUBJECT ASSESSMENT GRIDS WHICH WE CREATED LAST YEAR, 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.



THE MICROBITS HAVE BEEN USED TO TEACH CODING IN OUR UPPER KEY STAGE 2 CLASSES. IN JUNE, THE TEACHERS TOOK PART IN AN AFTER SCHOOL TRAINING SESSION, LEAD BY MR FLETCHER (HEAD OF COMPUTING AT THE CORSHAM SCHOOL). HE SHOWED US SOME SIMPLE, INTRODUCTORY PROJECTS THAT CAN BE TAUGHT. THIS HELPED DISPEL SOME OF THE UNCERTAINTY SURROUNDING THE MICRO-PROCESSORS AND HAS PAVED THE WAY FOR THEM TO BE USED MORE IN THE YEAR AHEAD.

OUR DEDICATED COMPUTING SUITE AND A WEEKLY TIMETABLE ENSURES THAT ALL CLASSES ARE ALLOCATED TWO COMPUTING SLOTS IN THE SUITE EACH WEEK. TEACHERS USUALLY USE ONE FOR TEACHING DEDICATED COMPUTING SKILLS (FOLLOWING OUR "TEACH COMPUTING" SCHEME) AND THE OTHER FOR CONSOLIDATING AND SHOWCASE 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.



Children use a variety of digital technology throughout the school. Some work done in the computing 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)

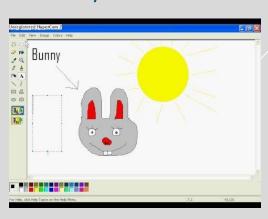
Using cameras and I.Pads

Using chrome books (Year 1 and 2)

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







- Key Stage II
- Year 6 have used Scratch and the Microbits to develop their coding skills.
- The Key Stage II children have used cameras, I.Pads and other digital equipment to provide sound and picture in our assemblies and shows. Also, Chrome books are regularly used in class.
- A variety of programmes are used in the computing suite (including, but not limited to: Scratch, Powerpoint, Word, Publisher, Excel, google chrome, matheletics, top marks, cool maths, TT Rock Stars.







At least one discrete lesson on Internet Safety is taught by teachers every term, following the Teach Computing scheme.



Termly assemblies, led by Mrs Bagnall, recap what the children have learnt and cover any current topics and trends regarding internet safety.

An annual Internet Safety day – concurring with the national event and using their theme and resources – takes place in school every February. This year it took place on 11<sup>th</sup> February and the theme of "too good to be true" encouraged children to be wary about online scams.

# 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.









Interviewing children from each year group and monitoring what is saved into the class folders on the school drive, also allows me to monitor what is being taught and learnt by the children. It allows me to investigate what computing work is being done. My observations are fed back to staff with praise for what was working well and suggestions for next steps.

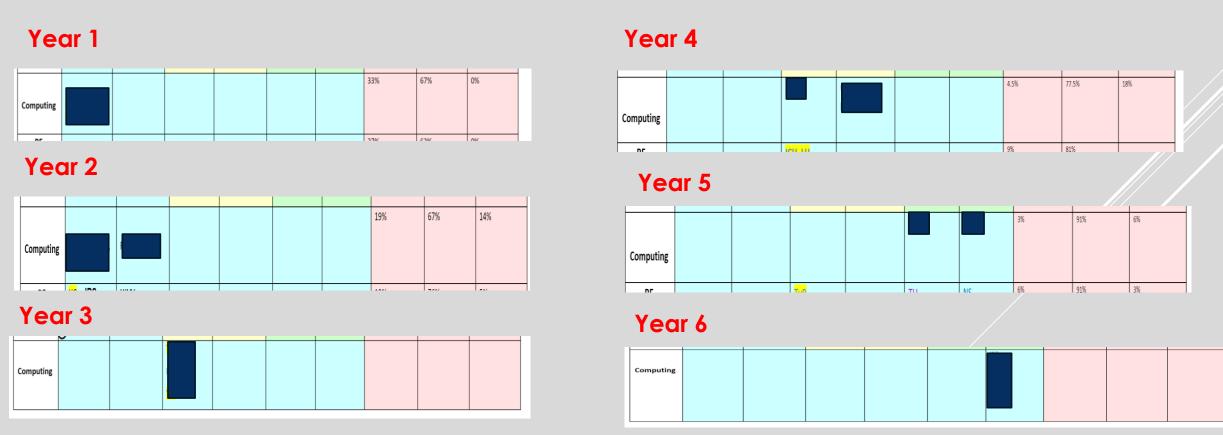
#### **IMPACT**

End of year assessment data shows that just over 30% of children are below expected level in year 1 (half of these being PP and a quarter SEN) but only 5% in year 2 – this data is very different and it will be important for me to do some monitoring next year. In KS2, generally 20% are recorded as working below. Disappointingly, no year 6 children are recorded as working above expected level.

The lower levels in year 1 may be 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 these children will need to be thought about. I intend to run a computing club during one term next year and will focus on KS1, with a particular invitation to those who are falling behind. Encouraging Dickens teachers to make use of the laptops in class may also encourage these children to become more computer literate.

I also intend to run a coding club for upper KS2 and this will hopefully improve levels in this age range whilst enabling some children to achieve above expected level. Mr Fletcher also returns to teach year 6 next year and this will also help push the older children to higher levels.

I hope that the new progression grid for computing will ensure that teachers are able to accurate assess where the children are to ensure consistency in assessment so that data is not so wildly different between year groups. I will aim to do some monitoring to ensure assessment is accurate and consistent.







Never give out personal information. Enzo I like drawing pictures on the computer. It's fun because it is new. Amaya

Don't talk to strangers on the computer. Harper Don't let anyone know your password. Daisy

I prefer doing stuff on the computer instead of in a book. It's fun.

Olivia





I've really enjoyed doing coding using Scratch. It's fun creating animations. K I think what we have done in computing will help with secondary school. Tyler

Doing stuff on the computer helps with life skills for when you are older.
Olivia

I liked learning code for the microbits.
Mya

Mr Fletcher is a really good teacher. I really liked making compasses using the microbits. Reggie

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 lessons, we know we are providing this for our children at Regis.

We will continue to aim high with our aspirations in computing. Next year, I intend to run a "coding club" and will club" and will particularly encourage the participation of girls as data shows that they can underachieve in this area. I will use Scratch and the Microbits in these sessions. I will continue to research new to research new resources and hope to encourage more video recording and editing, with the ambition of each class ambition of each class creating their own "day in the life off \*\*\*\*\* class" video story.

# "I like our computing lessons. You learn new stuff and it's really good really good fun" (Enzo)



