



CRAWSHAWBOOTH PRIMARY SCHOOL

COMPUTING

INTENT

'Recent research revealed that that 65% of children entering primary school today will take up jobs that don't yet exist. Add that to the fact that we already inhabit a world in which 82% of advertised roles require digital skills and we need to make sure we are supporting the younger generation.'

-DFT Skills Gap

At Crawshawbooth Primary School, we believe that providing a high-quality computing education prepares our pupils for active participation in an increasingly digital world.

It's essential for students to have a solid foundation in Computer Science, gaining an understanding of how digital systems operate while developing programming skills and computational thinking. This approach promotes systematic, logical problem-solving abilities.

Additionally, students will explore a variety of information communication technologies, enabling them to design programs, systems, and various types of content. As their future will likely involve regular software use, they will gain the experience and confidence needed to handle these tools effectively.

Digital literacy will also be a key focus, ensuring students can safely use technology to express themselves and develop their ideas, with consideration for others. As digital interactions become more common, establishing safe and appropriate usage guidelines is crucial.

By combining these three elements, we aim to help our pupils become capable, engaged, and responsible participants in the digital world.

IMPLEMENTATION

Crawshawbooth Primary School has adopted a structured and dynamic approach to teaching Computing by using Teach Computing resources. These materials are designed to provide a thorough and evolving curriculum for both students and staff. By regularly reviewing and updating these resources, the school ensures that students are learning in an environment that reflects the latest trends and advancements in the subject. This comprehensive approach fosters an exciting and progressive computing education experience.

Our mixed-age classes follow a two-year rotating program to ensure the entire curriculum is covered at the appropriate level, as outlined in the long-term plan, while maintaining a progressive structure.

A set of class laptops is used on a timetabled basis, they also available in morning sessions to complement teaching in English and Maths. Tasks using the whole class set of iPads are also incorporated into the school day to enhance learning across the curriculum. Unplugged or offline lessons are also frequently used to embed the theory behind programming algorithms or investigative activities to supplement learning.

Each class uses Seesaw, a digital portfolio which pupils can save their work for anything they create digitally.

Pupils are assessed termly against appropriate statements.

Computing Strands

Computing can be categorised into three strands:

Computer Science

The study of computers as machines focuses on how they function, including concepts such as programming, algorithms, variables, sequences, selection, and repetition.

Digital Literacy

The skills necessary to thrive in a society where communication and access to information are increasingly digital, such as through internet platforms, social media, and mobile devices. This involves being informed and responsible technology users, ensuring safe and respectful use of the internet and other digital platforms.

Information Technology

The ability to create, retrieve, combine, and manipulate digital content, along with an understanding of computer networks, the internet, and the World Wide Web and how they function.

National Curriculum

Key stage 1

Pupils should be taught to:

- understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions (Computer Science)
- create and debug simple programs (Computer Science)
- use logical reasoning to predict the behaviour of simple programs (Computer Science)
- use technology purposefully to create, organise, store, manipulate and retrieve digital content (Digital Literacy)
- recognise common uses of information technology beyond school (Information Technology)
- 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 (Digital Literacy)

National Curriculum

Key stage 2

Pupils should be taught to:

- design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts (Computer Science)
- use sequence, selection, and repetition in programs; work with variables and various forms of input and output (Computer Science)
- use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs (Computer Science)
- 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 (Digital Literacy)
- use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content (Digital Literacy)
- 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 (Information Technology)
- use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact (Digital Literacy)

Online Safety

Online Safety is taught within each unit of our curriculum. This is so the children can understand how to stay safe online within any aspect they are being taught.

Teach Computing:

The unit overviews for each unit show the links between the content of the lessons and the national curriculum and Education for a Connected World framework (nccce.io/efacw). These references have been provided to show where aspects relating to online safety, or digital citizenship, are covered within the Teach Computing curriculum. Not all of the objectives in the Education for a Connected World framework are covered in the Teach Computing curriculum as some are better suited to personal, social, health, and economic (PSHE) education; spiritual, moral, social, and cultural (SMSC) development; and citizenship. However, the coverage required for the computing national curriculum is provided

EYFS

EYFS does not operate on a 2 year rolling programme so the same units will be taught each year.

EYFS will teach the Online Safety Strand of Digital Literacy Discretely and use videos provided by ‘The National College’

We have a bank of ‘Indi Robots’ which we will use for programming units. The first unit will be taught discretely and the following units will be taught through continuous provision.

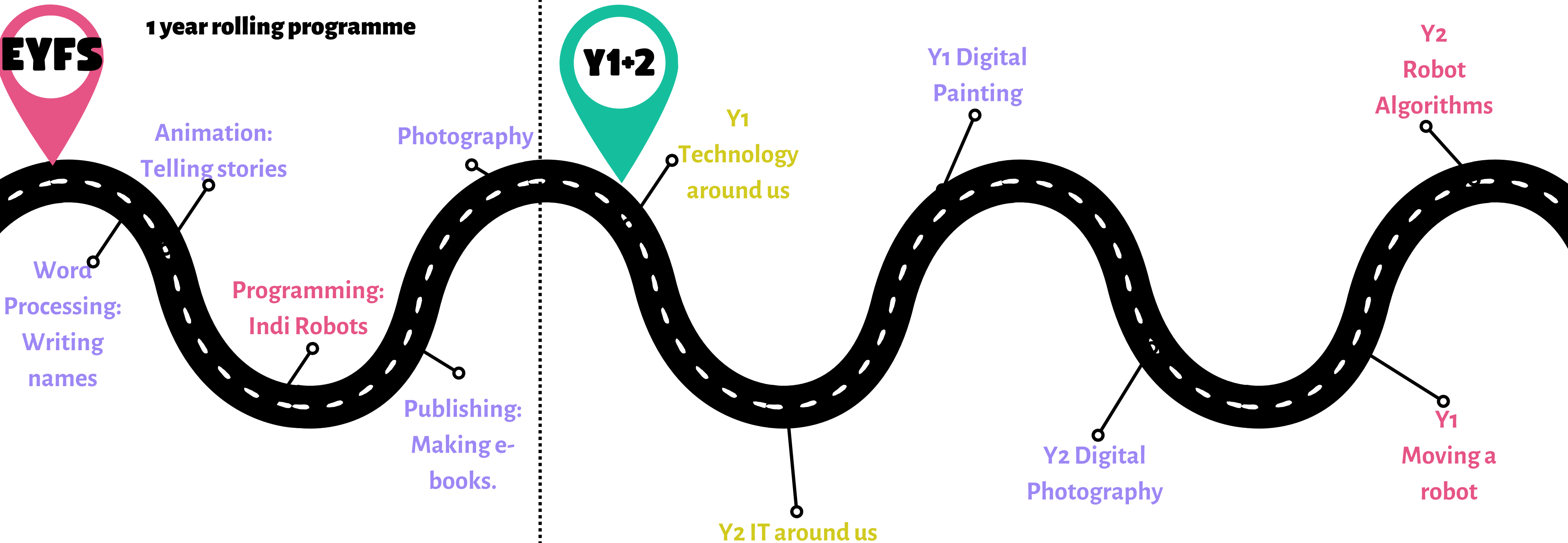
The IT units will be taught through continuous provision and will be used to enhance what the children are learning in the other areas of the EYFS curriculum.

All about me	Let’s Celebrate	Winter Wonderland	People who help us	Roots, Shoots and Muddy boots	A long time ago
		Computer Science Using Indi Robots – direct teaching.	Computer Science Using Indi Robots – in provision.	Computer Science Using Indi Robots – in provision.	Computer Science Using Indi Robots – in provision.
Online Safety Spotlight (3x 20 min sessions) Online Relationships I can recognise some ways in which the internet can be used to communicate. I can give examples of how I (might) use technology with people I know.	Online Safety Spotlight (3x 20 min sessions) Online Bullying I can describe ways that some people can be unkind online I can offer examples of how this can make others feel.	Online Safety Spotlight (3x 20 min sessions) Privacy and Security I can identify some simple examples of my personal information (e.g. name, address, birthday, age, location) I can describe who would be trustworthy to share this information with; I can explain why they are trusted. Copyright and Ownership (3) I know that work I create belongs to me I can name my work so that others know it belongs to me I can express how I felt when I created this work I can share my work with a friend Include logging onto laptops with credentials.	Online Safety Spotlight (3x 20 min sessions per unit) Manging Online Information I can talk about how to use the internet as a way of finding information online. I can identify devices I could use to access information on the internet Online Reputation I can identify ways that I can put information on the internet.	Online Safety Spotlight (4x 20 min sessions per unit) Self Image and Identity I can name and recognise uncomfortable, embarrassed, and upset emotions I can recognise, online or offline, that anyone can say ‘no thank you’/ ‘please stop’/ ‘I’ll tell’/‘I’ll ask’ to somebody who makes them feel sad, uncomfortable, embarrassed or upset /	Online Safety Spotlight (4x 20 min sessions) Health, Wellbeing and Lifestyle I can identify rules that help keep us safe and healthy in and beyond the home when I am using technology. I can give some simple examples of these rules I can apply these rules during my play I can link feelings to my online experiences Include logging onto laptops with credentials and shutting the laptop down.

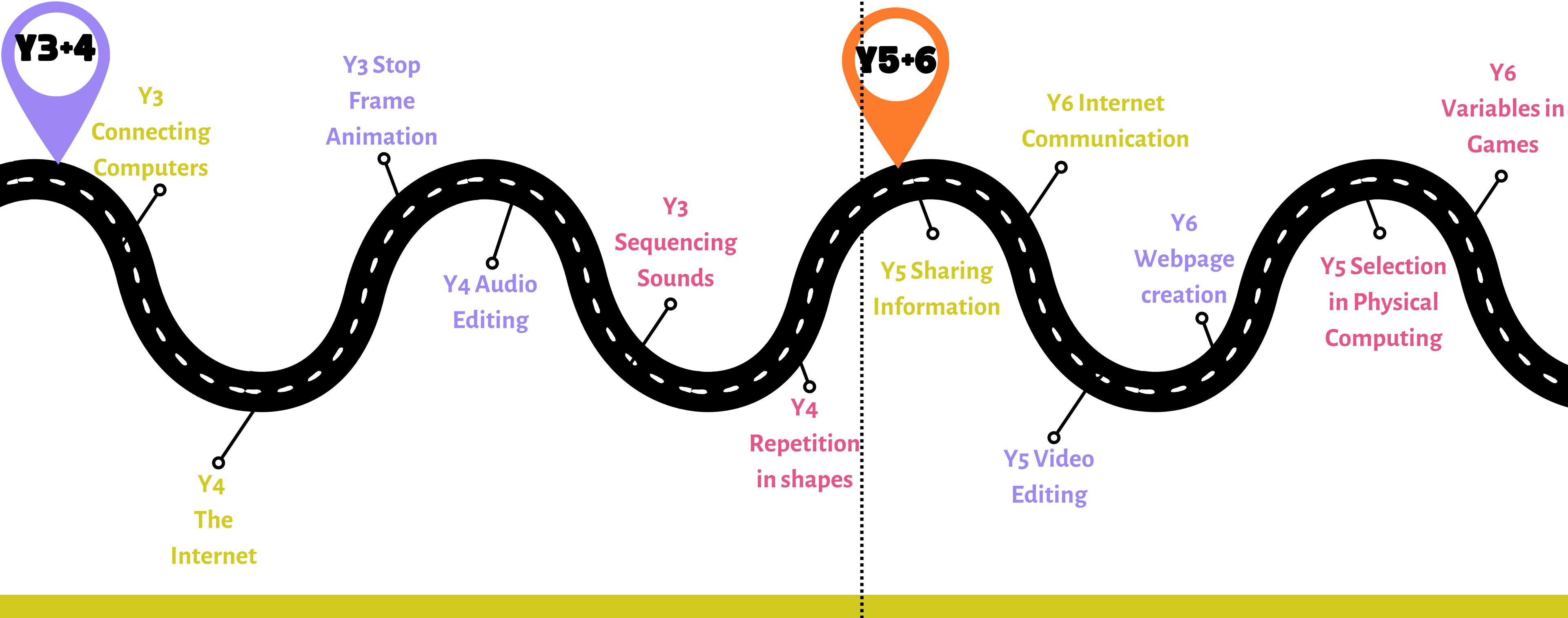
EYFS

<p>IT Word Processing: <i>Book Creator</i></p> <p>Using book creator to type and write their name.</p>	<p>IT Animation – <i>Puppet Pals</i></p> <p>Using Puppet Pals to retell a story / celebration / learning.</p>		<p>IT – E book creation: <i>Book Creator</i></p> <p>Using book creator to create an 'ebook'. Teacher to insert images from book class are reading and learning to retell. Children to add voice button retelling the story for each page. Can differentiate by <u>amount</u> of images.</p>	<p>Photography and Digital Art <i>Camera app</i></p> <p>Taking Photographs of plants / nature.</p>	
<p>Continuous Provision</p> <ul style="list-style-type: none"> Using <u>ipad</u> apps <u>including</u> puppet pals to support learning across the curriculum. Exploring how things work Using the internet Developing motor skills so they can use a range of tools competently, safely and confidently including: <ul style="list-style-type: none"> <u>ipads</u> Programmable toys – Indi Robots. Laptops Torches Touch screen SMART board Cameras on <u>ipads</u> <u>Kaligo</u> 		<p>Outdoor Learning</p> <p>Children to take <u>ipads</u> on welly walks/outdoor play / outdoor lessons to record their own learning.</p> <p>Provide children with frequent opportunities for exploring a range of technology.</p> <p>Encourage use of technology for a range of purposes.</p>		<p>Vocabulary</p> <p>Computer Science (programming): On Off Switch Backwards Forward Instruction Sound Moving, spin.</p> <p>Digital Literacy: emotions, sad, uncomfortable, embarrassed, upset, unkind, worry, offline, online, trusted adult, communicate, technology, internet, connect, device, healthy, happy, safe, rules, personal, information, location, fact, private, dangerous, belong.</p> <p>IT: Buttons Collect Command Computer Count Equipment Keyboard Keys Monitor Mouse Movement Organise</p>	

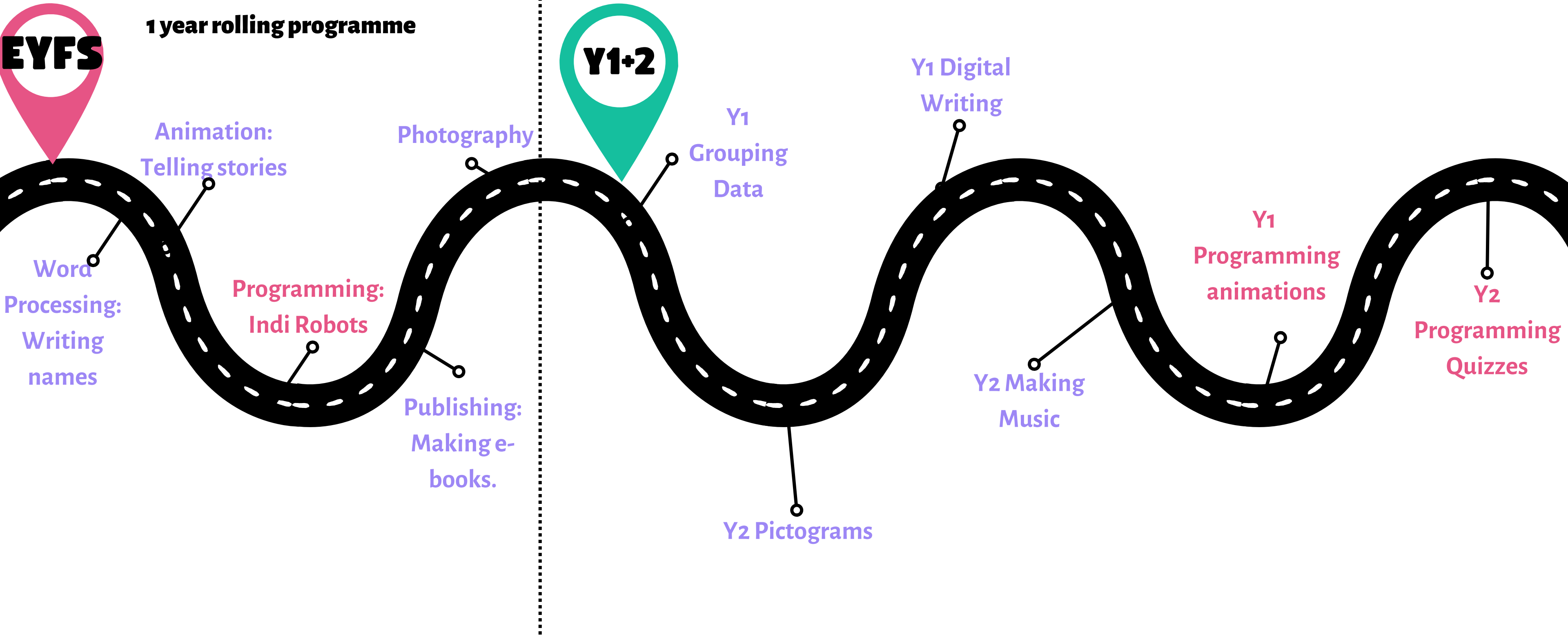
Even/Odd Years



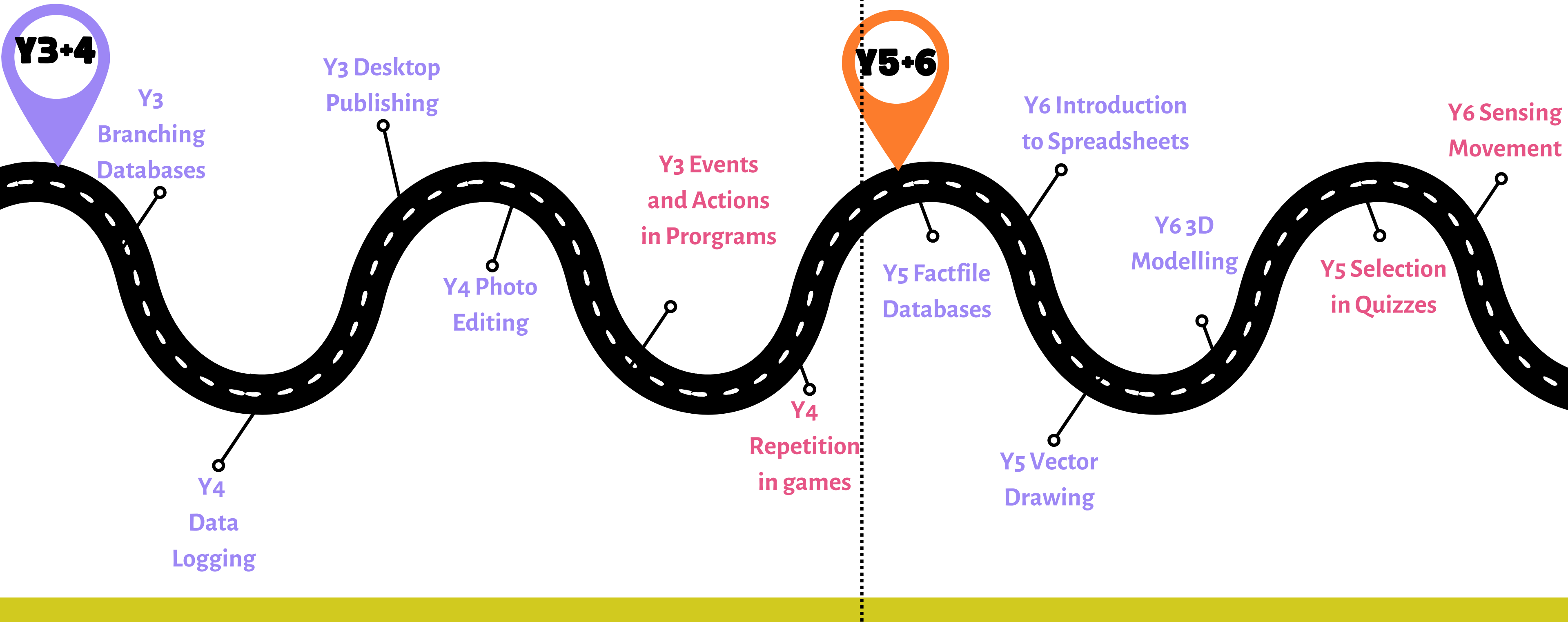
Even / Odd Years



Odd/Even Years



Odd/Even Years



Impact

By the time pupils leave Crawshawbooth Primary School, they will have:

- **Confidence in selecting and using the appropriate equipment and software to meet their needs.**
 - **The ability to solve problems by analyzing data in various formats.**
- **The skill to break tasks into smaller components and translate instructions into a logical program to achieve their goals.**
- **Confidence in their abilities, along with a range of problem-solving strategies across different software and applications.**
 - **A solid understanding of how digital systems function and interact in everyday life.**
- **Most importantly, they will use technology responsibly and safely, with consideration for both themselves and others.**