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Computing Subject Guide

Raynville Academy's Curriculum Statement

At Raynville we are committed to creating an environment where our children love learning. Through our curriculum, we endeavour to develop the skills, knowledge and learning attitudes of our pupils so that they are equipped to be the best that they can be. We value the importance of enriching our pupils' curriculum with real life experiences, through trips and visitors, so children have first-hand opportunities to embrace their learning. We set high expectations and strive for independence in all areas regardless of a child's starting point in life. At Raynville, we place our values at the core of everything we do and prioritise pupils' understanding of the necessity for being ready, respectful and responsible. We feel this is essential in preparing children to be tolerant and inclusive of all so that they can positively contribute to our wider community.

Computing Curriculum Statement

Through our computing curriculum at Raynville Academy, we aim to give our pupils the life-skills that will enable them to embrace and utilise new technology in a creative way, as well as being responsible and safe. The technology of today's age is growing and changing at an incredibly fast pace, and it is essential that our pupils have the right learning experiences that balance all aspects of computing, to allow them to flourish.

As stated in the National Curriculum Computing Programmes of Study, having access to a strong computing education across EYFS, KS1 and KS2, will allow our pupils to *"use computational thinking and creativity to understand and change the world"* – at Raynville Academy we take great pride in the world-changers that we are helping to create, and know that our students deserve the best start in navigating the technological world that we live in.



Intent

At Raynville, we believe that our pupils deserve to learn within a rich, inclusive and safe environment. Through a rich, engaging and modern computing curriculum, we aim to help our students make safe choices while online as well as instilling positive personal and social attitudes, ensuring they have the skills and knowledge to enable them to achieve all the criteria of what we believe makes a successful digital citizen.

Communication is a key priority within all aspects of our curriculum, and this continues throughout computing. Students are encouraged to work collaboratively with each other on projects.

We consistently promote respect for ourselves, others and the environment through our e-safety work, and engage each year with 'Safer Internet Day'. We ensure we create lots of opportunities for discussion, as well as providing the information our students need to become independent and resilient in their online lives.

Curriculum Information

Pupils are introduced to a wide range of technology, including Beebots, ipads, laptops, interactive whiteboards to allow them to always be improving and developing their ideas and skills. The sequence of learning develops pupils' understanding of how digital technology and other computational systems are designed, programmed and operated. The use of our technology within school, helps provide a rich and inspiring curriculum, where our students are able to get "hands on".

We believe that Computing enhances our teaching and learning in many invaluable ways, and so we aim to use our computing skills in as many subjects as possible – such as History quizzes through Kahoot or using ipads as a learning resource within phonics. We encourage our pupils to be creative, innovative, resilient and resourceful across all lessons. We believe that when our students see computing skills being used across the entire curriculum, this enables them to gain confidence through effective modelling, as well as providing opportunities for further discussion.

E-Safety

For E-Safety, at Raynville we follow Project Evolve as a scheme. This scheme provides activities where young people aren't told what to do and what not to do, but rather provides the right opportunity for discussion; prompted by appropriate questions accompanied by honest and useful information to shape thinking and challenge misconceptions.

The scheme is based on UKCIS framework "Education for a Connected World" (EFACW), and covers knowledge, skills, behaviours and attitudes across eight strands of our online lives, from EYFS through to KS2. These outcomes or competencies are mapped to age and are progressive in nature. This occurs as planned focuses throughout the academic year, particularly around Safer Internet Day each February. During the school year, children are routinely taught and reminded about good practise whenever appropriate across the

curriculum, and when there are any issues that arise during the school year related to e-safety (such as a new trend that may be harmful in nature), teachers respond to this accordingly. This ensures that the inclusive and safe environment which we instill throughout the school feeds into our students' online lives, enabling them to make positive and healthy life choices. Around Safer Internet Day, we will provide parents with information around E-Safety, to support them to ensure their children are safe online by monitoring and protecting their children while engaged in online activities.

Progression of Computing skills throughout the school

EYFS

While the EYFS framework does not have an explicit computing strand within it, at Raynville we know the importance of building a strong foundation at an early age. The most relevant statements for computing are taken from the following areas of learning:

- Personal, Social and Emotional Development
- Physical Development
- Understanding the World
- Expressive Arts and Design

Computing			
Three and Four-Year-Olds	Personal, Social and Emotional Development		• Remember rules without needing an adult to remind them.
	Physical Development		• Match their developing physical skills to tasks and activities in the setting.
	Understanding the World		• Explore how things work.
Reception	Personal, Social and Emotional Development		<ul style="list-style-type: none"> • Show resilience and perseverance in the face of a challenge. • Know and talk about the different factors that support their overall health and wellbeing: <ul style="list-style-type: none"> - sensible amounts of 'screen time'.
	Physical Development		• Develop their small motor skills so that they can use a range of tools competently, <u>safely</u> and confidently.
	Understanding the world		<ul style="list-style-type: none"> • The 'Technology' strand has been removed, though it is still expected that children will be introduced to appropriate technology and use it within their provision. • Look at images of familiar situations in the past, such as homes, schools, and transport. Talk about experiences that are familiar to them and how these may have differed in the past.
	Expressive Arts and Design		• Explore, <u>use</u> and refine a variety of artistic effects to express their ideas and feelings.
ELG	Personal, Social and Emotional Development	Managing Self	<ul style="list-style-type: none"> • Be confident to try new activities and show independence, resilience and perseverance in the face of challenge. • Explain the reasons for rules, know right from wrong and try to behave accordingly.
	Expressive Arts and Design	Creating with Materials	• Safely use and explore a variety of materials, <u>tools</u> and techniques, experimenting with colour, design, texture, form and function.

Key Stage 1 and 2

Our curriculum for KS1 and 2 are based on a spiral curriculum and based on projects from the MR.P ICT scheme. This means that each of the themes are revisited regularly (at least once in each year group), and pupils revisit each theme through a new unit that consolidates and builds on prior learning within that theme.

This style of curriculum design reduces the amount of knowledge lost through forgetting, as the topics are revisited yearly. It also ensures that connections are made even if different teachers are teaching the units.

Implementation

What does teaching computing at Raynville Academy look like?

Computing is delivered from a project approach which can be, where possible, linked to the pupils' learning in other subjects. Children may work in groups or individually. Within the projects, the children are given the opportunity to:

- design their project
- apply their learning to an app
- refine their learning through tinkering with different apps
- evaluate their learning
- share their learning through publishing

Evidencing/Feedback

Evidence for Computing will be gathered through the use of Seesaw. Seesaw is a programme that students are very comfortable with, after having used it during lockdowns. This allows students to learn how to save and upload their work right from KS1, developing the important skills needed to work in a technological advanced society. It also allows students to add voice notes to their work, ensuring that even those who may struggle with other subjects have access to a fair and inclusive computing curriculum.

Pupil interviews will be conducted throughout the year, particularly in the lead up to E-Safety week, to ensure that teaching and learning is informed by our students, and has our students at the heart of everything we do.

Marking and feedback is quick and easy through Seesaw, which allows teachers to add comments, assess their learning, and also allows students to respond to their comment to further their learning.

Differentiation and SEND

Within the project approach taken, differentiation is built in at various stages of the lesson, and ensures that students are supported, engaged and challenged appropriately. Within a lesson, differentiation may be seen through having individual learning outcomes or tasks, to

ensure that all students make progress at their level, and those who struggle are appropriately supported and guided.

Additional timing is also provided throughout the lesson to those students who need it, while ensuring that pupils are focused and remain on task.

We also make use of collaborative differentiation, as working collaboratively is one of the core strands that run through our curriculum. This allows students to shine through supporting their classmates, but also ensuring that their areas of weakness are supported and developed.