Coalway Community Infant School
Computing Curriculum Intent

Whole school Vision:

- We will nurture our children to become happy, independent, confident and valued individuals who will be able to make healthy, happy relationships with a range of people. They will develop positive personal traits, values and attitudes, which will prepare them for later life experiences.
- We will ensure all of our children experience a broad, rich curriculum, tailored to the unique needs of each individual child.
  Our children will have developed knowledge, understanding and skills across the curriculum by the time they leave us, ensuring that they have the skills necessary for their future success.

  We will focus in particular on supporting the development of our children's early communication and language skills, early reading and early mathematics skills, to accelerate their progress and prepare them for the next stage of their education.

- We will enable our children to believe in themselves and be aspirational, to achieve the highest possible standards and be successful.
- We will help our children develop a love of and enthusiasm for learning, where they are proud of themselves and celebrate everyone's achievement.
- We will care for and support everyone within our 'Coalway family', establish good communication and relationships, and work together to provide the best outcomes for all of our children. We will continue to develop the children's understanding of their belonging within the community and the wider world and strive to develop strong successful partnerships beyond the school.
- We will ensure that all children try new things, perform in a show, learn outdoors, including within our beautiful Forest of Dean setting, have experiences within the local community, visit new places and have the opportunity to learn to swim.
  Our children will leave Coalway Infants with positive, happy memories, having had a wealth of experiences and a range of academic, creative, sporting, cultural and spiritual opportunities.

Computing Vision

At Coalway Infant School our ambition in computing is for children to develop problem solving skills, improve their critical thinking and become digitally literate, so that when they leave at the end of KS1 they can build upon their skills and knowledge in KS2, secondary school and further education and into the wider world. At Coalway we understand the importance of a strong computing curriculum starting at an early age because of the role Gloucestershire plays as a large area consisting of many technology companies, therefore the significance of skills, knowledge and enthusiasm that is embedded in school will lead to the children easily securing a job as an adult.

How is Computing taught?

Computing in the Early Years
Even though technology is not explicitly referred to in the EYFS framework, the children have access to a range of technology and unplugged activities built into our Coalway EYFS curriculum. These activities are built into continuous provision and hit the early learning goals within: Understanding the World, Expressive Arts and Design, Physical development and Social and Emotional development. The children have access to technology on a daily basis in their classroom through their role play areas, interactive white board and remote-controlled devices. At Coalway we use Barefoot activities to help the children develop their early computing skills and knowledge through:
Tinkering (playing and exploring)
Creating (making things and fixing things)
Collaboration (working cooperatively)

Preserving (not giving up)
This is in preparation for the KS1 computing curriculum.

Computing in Key Stage One
In KS1 at Coalway, computing is taught using the Teach Computing scheme of work. This is a spiral curriculum so that children will revisit skills and knowledge again and again allowing them to embed and deepen their understanding. At Coalway we believe it is important to expose children to significant computer scientists and their inventions that helped to change our lives, therefore we have adapted lesson resources to include individuals in each lesson as well as our Coalway online safety rules so that children are constantly reminded of how to stay safe online and key vocabulary with pictures to support all children. The children have access to a variety of technology such as: laptops, iPads, Bee-bots and interactive whiteboards. Teaching is assessed through observations in lessons which teachers input into a tracking grid against end points.

Enriching Our Curriculum
Computing is enriched through the range of resources that the children use during lessons. Children are exposed to problem solving which help to develop these skills for use both in Computing lessons and the real world. We aim to allow children to experience a range of different technologies and apply what they learn to different situations, preparing them for the diverse world of technology. We celebrate Safer Internet Day each year, where we plan in assemblies that week to embed our Coalway online safety rules, read online safety stories and planned activities from visitors throughout the day. We also send an online safety newsletter to parents via parent mail and teachers share these in class with the children too. We also offer clubs to year 2 children to develop their enthusiasm and love for computing further.

Why Computing is taught in this way?

Early Years
Computing is not a statutory part of the EYFS curriculum, however children are exposed to technology through their learning environment and through problem solving whilst learning. This is explored through continuous provision activities which link to programming, data and information, creating media and computer systems and networks. The knowledge and skills learnt in early years will help children to create links to the KS1 computing curriculum. The children are also exposed to online safety from the start through stories so to highlight the importance staying safe and gives them strategies of what to do if they feel worried, scared or sad by anything they might experience online.

Key Stage One
The learning programme is arranged into four main parts – data handling; computer systems and networks; creating media; and programming. Each unit is taught progressively to ensure that prior knowledge can be recapped and built on. The scheme naturally allows children to makes links with previous learning. There are both computer-based and 'unplugged' activities which allow children to understand how computers work as well as how they can be used for different purposes. Computing is taught weekly and the children's work is evidenced in folders. A computer scientist of the term is displayed with key vocabulary and pictorials to support. Each class has an online safety display to help remind the children of their strategies to stay safe.

How does Computing meet our curriculum intent?

Raising self-esteem/self-confidence – Computing is always taught as a whole class so that all children are learning the same material as their peers. Teachers will scaffold and extend learning where appropriate and necessary to ensure that all children are both supported and challenged in computing lessons.

Focus on the core skills of reading/writing/maths – In some Computing lessons, children are expected to complete written tasks as well as computer-based tasks. As with other lessons, children are expected to answer

and write in full sentences. There are links with reading and writing through word processing and maths through the use of pictograms in data handling.

Developing speech and language – Generally, in Computing lessons, children work in pairs, allowing lots of discussion and team work. They are expected to discuss the process they are using to complete tasks and solve problems. Computing also introduces children to new vocabulary that they are required to use throughout the lessons and revisit regularly.

Raise aspirations and set high expectations – In Computing, children are taught as a whole class. We are aspirational in our teaching, encouraging all children to reach their full potential, recognising that this may not be linked to their ability in Maths and English.

Develop life skills/social skills – Children often work in pairs ensuring that they work collaboratively and cooperatively. This is good experience for children to reason and explain their ideas when they think differently to their members of their group; it is ok to disagree and be able to explain their own opinions. Being computer literate is essential for every-day life. Through our Computing curriculum we aim to prepare children for the next stage in their education.

Golden threads

- For Safer Internet Day a local company are invited into school to inspire the children and to demonstrate to them what they could aspire to do as an adult.
- Children are encouraged to stay safe online in school and outside of school. They learn the Coalway online safety values which link to the Coalway Bees. We use songs from Jessie an Friends to embed this further.
- Children are taken outside to take photographs of their environment and to explore how to use cameras to take a good quality picture. Taught specifically in the year 2 digital photography unit of work.
- A range of significant computer scientists from history have been chosen. The computer scientists come from different eras, gender and ethnicities. Children can begin to link technology to living memory and how our world has changed very quickly.
- EYFS children begin their computing journey with online safety stories, technology and unplugged activities. The curriculum encourages children to explore, work collaboratively, play and preserve. Therefore, creating critical thinking and problem solving.
- Computing is very practical, hands on and explorative. Mistakes are celebrated and children are encouraged to problem solve to improve their work.

Subject Leader drivers 2023-2024

Raising the profile of computing:

- Adapt lesson resources for KS1
- Improve assessment in computing in KS1
- Monitor and assess the standards of pupil work
- Arrange activities for Safer internet day