Ryders Hayes School

A Primary Learning Academy

Computing Guidance

Ryders Hayes School
Gilpin Crescent
Pelsall
Walsall
WS3 4HX
01922 683008
postbox@ryders-hayes.co.uk

Amy Swann
Computing Leader

'Do the right thing to be the best you can be'...

Introduction

1.1 The School seeks to promote behaviour based on mutual respect between all members of the School community. Ryders Hayes aims to:

....nurture and facilitate the growth of our pupils and their learning; equipping them with the skills and attributes to embrace the challenges of a rapidly changing world. To enjoy success for today and be prepared for tomorrow, by instilling the values of: enquiry; adaptability; resilience; morality; effective communication; thoughtfulness; collaboration; respect; international /open mindedness and a growth mind-set.

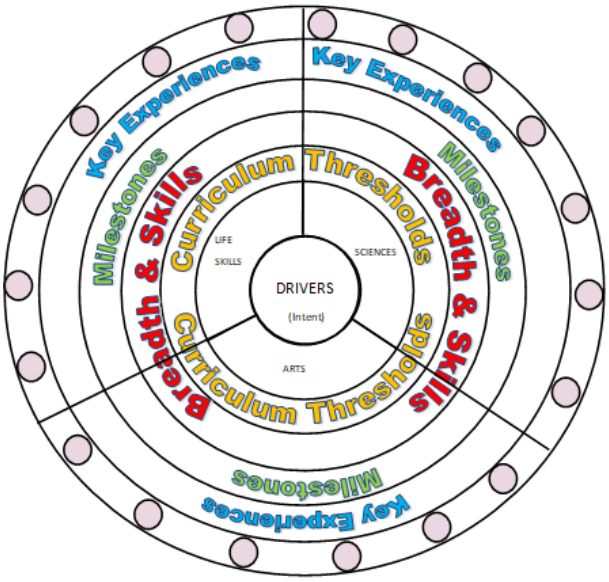
1.2 This guidance outlines the learning, teaching, organisation and management of Computing at Ryders Hayes School.

1.3 The implementation of this policy is the responsibility of all teaching staff. The responsibility for monitoring and review rests with the Computing Leader- Amy Swann..

1.4 The curriculum is designed to build a schema by developing knowledge and vocabulary through a range of topics and deliberate practice.

Our Intent

2.1 Ryders Hayes Curriculum Model



2.2 At Ryders Hayes each subject holds threshold concepts; the key disciplinary mastery aspects of each subject. They are chosen to build conceptual understanding within subjects and are repeated many times in a variety of experiences.

2.3 The threshold concepts in Computing are:

- Digital Literacy
- Information Technology
- Computer Science
- E-Safety

2.4 The threshold concepts are divided into three milestones. We expect pupils in year 1 of the milestone to develop a secure understanding of the concepts and a deeper understanding in year 2 of the milestone. Phase one (Yr1, Yr3, Yr5) in a Milestone is the knowledge building phase that provides the fundamental foundations for later application. Learning at this stage must not be rushed and will involve a high degree of repetition so that knowledge enters pupils' long-term memory. If all the core knowledge is acquired quickly, teachers create extended knowledge.
2.5 The curriculum at Ryders Hayes has three drivers chosen specifically to permeate the curriculum to meet the needs of our children and their local context.
2.6 The Curriculum Drivers for Ryders Hayes School are to:

Explore possibilities
Create independence
Build resilience

2.7 Through our teaching of Computing, we intend to:

Stimulate pupils' enthusiasm for their Computing capabilities in finding, selecting and using information
Use Computing for effective and appropriate communication
Monitor and control events both real and imaginary
Apply hardware and software to creative and appropriate uses of information
Apply pupils' Computing skills and knowledge to their learning in other areas
Use pupils' Computing skills to develop their language and communication skills
Explore pupils' attitudes towards Computing and its value to them and society in general. For example, to learn about issues of security, confidentiality and accuracy.

2.8 Through Computing we can also:

Improve pupils' skills in English and Maths
Develop pupils' thinking skills
Promote pupils' awareness and understanding of gender, cultural, spiritual and moral issues
Develop pupils as active citizens
Promote awareness of Computing related careers

2.9 Entitlement and Equal Opportunities

We are committed to providing a teaching environment conducive to learning.
All pupils are entitled to access the Computing curriculum at a level appropriate to their needs arising from race, gender, ability or disability, religion, social background and culture. We work to ensure that each child

Achieves the best possible academic standards in Computing regardless of starting point or ability
Experiences and explores Computing features in a real-life context
Understands their role as a Digital Citizen
Develops an awareness of other cultures and, in doing so, achieves respect, tolerance and understanding of what it means to be a positive citizen in a multi-cultural country embedding the fundamental British vales.

2.10 Organisation of Computing within the Curriculum

Computing is linked to all subjects including Geography, History, RE and Science, Me and My World, Maths and English through the use of devices for cross-curricular writing and many lessons have been created based on Year group topics as the driving force.
Additionally, Computing is part of the Science Focus for learning. This enables Science, Maths, Design and Technology and STEM to work together sharing best practice, modelling and support excellence and holding each other to account of our Subject Lead responsibilities.

Our Implementation

3.1 We have developed and reviewed the national scheme of guidelines for Computing as the basis for our curriculum planning. We have adapted the national scheme to the local circumstances of our school, i.e. we make use of the hardware and software available to us and utilise our linked Secondary Schools for support in this area. We review our long-term plan on an annual basis.
3.2 Supporting our Curriculum Drivers, we have our knowledge categories which provide the key knowledge within subjects and help us to grow our cultural capital; making links where appropriate to our children and their learning.

3.3 The Knowledge Categories for Ryders Hayes School are:

Location
Settlement
Culture and pastimes
Significant events
Food and farming
Number
Self-expression
Career related
Beliefs
Innovation
Language and oracy
Peace and war

3.4 Within each year group key concepts are taught at stages throughout the school year. These again focus on the need, and importance, of repetition in our curriculum.

Autumn Term	Spring Term	Summer Term
Local place, pattern and communication	National place, pattern and communication	Global place, pattern and communication

3.5 Teaching and Learning in Computing will be in line with the school's *Behaviours for Learning Policy*, where provision is made for all learning styles.
The Computing curriculum at Ryders Hayes School is designed to provide children with learning opportunities that reflect the breadth and balance of contexts outlined in the National Curriculum, as well as well-planned repetition to ensure secure foundation of computational knowledge and skills.

3.6 As an integral part of the teaching and learning of Computing, children will be given the opportunity to use office software to communicate in a variety of ways.

3.7 We are very proud of our Computing provisions and use these in a variety of ways to help children learn computational skills and to respect the school grounds and wider environment.

3.8 We hold a yearly Science Focus Day which is an integral part of our Computing teaching which contributes to our development of global citizens. Each year group is delegated a specific focus relating to the Sciences Science, Maths, Design and Technology and STEM come together to provide experience for our learners.

3.9 We display and share the characteristics of a Technology user, as well as investigating career opportunities, with children at every available opportunity.

I am an effective coder and technology user

I have:

- Competence in coding.
- The ability to connect with others safely and respectfully.
- The ability to communicate ideas well, by using applications and devices throughout the curriculum.
- The ability to collect, organise and manipulate data effectively.

3.10 Key Experiences:

Ryders Hayes Computing curriculum is a bespoke model to cater for the needs of the children and key experiences have been carefully selected to ensure that they allow children to explore/create/ build: possibilities, resilience and independence. The Key experiences include:

EYFS	Exploring different devices, the purposes of technology and the basics of coding.
Year 1	Learning how to 'speak to a computer, create an app and share information about Pelsall using technology.
Year 2	Creating a flying game, make characters interact in a game and create a powerpoint presentation about their Chasewater experience.
Year 3	Write a debug a program that accomplishes a specific goal, create a blog, change the output for an animation and using green screen.
Year 4	Create a virtual shop, use excel to present information from a data logger, create animation and using green screen.
Year 5	Write and debug programs that accomplish specific goals including controlling or simulating physical systems, build and control a moveable Lego robot and create a sprite for an Egyptian game.
Year 6	Exploring what the internet is, how to digitally control the lights on a lighthouse and use iMovie for their Edgmond Hall trip.

3.11 The role of the Computing Leader is to:

Support colleagues in teaching the subject content and developing their skills in planning, teaching and assessing Computing
Renew, update and oversee the audit of resources needed to deliver the curriculum
Monitor and evaluate the learning and teaching of Computing through learning walks, pupil voice and looking at Seesaw data for assessment
Develop assessment and record keeping ensuring progression and continuity
Communicate findings, ideas and resources and have an open-door policy for suggestion and questions
Design the Medium- Term Plans for teachers to use and annotate for weekly lessons

Impact

4.1 The curriculum design and planning will lead to outstanding progress for all pupils, regardless of their starting points, over time. Learning is progressive and builds on prior knowledge and understanding and supports children in producing outcomes of the highest quality. Teaching and learning is adapted to cater for the needs of all pupils; providing support for children with special educational needs and enrichment and challenge for more able children.

4.2 Opportunities for assessing the impact will be identified in curriculum overviews for each age group, and these will be based on an assessment of key skills and essential knowledge and understanding within Computing.

4.3 Methods of assessment will vary as appropriate to the learning. A portfolio of work from Y1 to Y6 will show examples of Computational work; as well as appropriate evidence from EYFS – understanding the world and will be used to support judgments.

4.4 In Computing the use of technology is also used to record and gain evidence of children's Geographical knowledge and skills. Children will be set small tasks in order to demonstrate the knowledge and skills they have learnt during their learning journey and as part of end of Milestones. These tasks will be completed throughout the year to monitor and evidence progression and attainment. Pupil voice will be used to assess the progress in understanding and applying skills needed to become a Technology user.

Resources

4.5 Computing resources are stored in the designated area (Radio Room). Children will have the opportunity to use the following resources: iPads, Beebots, Laptops, Data Loggers, Lego WeDo, Radio equipment, softwares downloaded onto iPads and Laptops.

4.6 If new or additional resources are required this is the responsibility of the Computing Leader to source as well as replenish necessary resources. The Computing Leader is the curator of the subject and will update and provide medium term plans to each year group, whilst acting as a curator for the Computing

Health and Safety

4.7 This policy needs to be read alongside our *Health and Safety Policy.* Consideration needs to be given to conducting appropriate Risk Assessments and ensuring the safeguarding of children and staff when planning and carrying out Computing activities.

Monitoring and Evaluation

4.8 The teaching and learning of Computing will be monitored through the analysis of medium-term planning, pupil voice interviews, analysis of assessment data, scrutiny of work samples, completion and recording of Computing tasks to assess skills and knowledge and learning walks, in line with the School Development Plan.

4.9 The Computing leader will evaluate progress that has been made and the impact of the curriculum to ensure all pupils have been taught the knowledge and skills they need to deepen their Computational understanding.

4.10 The school will review this guidance annually and assess its implementation and effectiveness.