



# St Michael's C E Primary

## Curriculum Policy:

### COMPUTING

**"We are the seeds. Our school is the good ground which provides everyone with all they need to grow and achieve." (Our children)**

St Michael's is a Church of England Primary School built on distinctive Christian Values at the very heart of its community.

*We will provide:*

- a welcoming, inclusive school with strong relationships across our community, that celebrates diversity;
- excellent teaching with a nurturing approach, guiding first steps to next steps;
- an inspirational and challenging curriculum which ignites curiosity, encourages resilience and grows confidence so children become lifelong learners;
- a happy, safe and stimulating environment in which children can achieve their full potential;

So that our children will flourish in all they do and become good citizens

**"And some seed fell on good ground. This seed grew and made 100 times more grain." (Luke 8:8)**

***Respect, Persevere, Achieve***

## **Computing**

*To be read alongside school's Curriculum Aims, Teaching and Learning Policy and Assessment and Feedback Policy*

### **Rationale**

At St Michael's Primary School we recognise that pupils are living in a rapidly changing world, in which technology is playing an ever-increasing role. We aim, therefore, to equip children with the skills to adapt to new technology and to give them confidence to use it to further their learning and assist them in everyday life. In doing so, all pupils will have access to computing equipment and resources, according to their ability and age range.

At St Michael's Primary School we believe that increased computing skills promote independent learning and gives greater access to a wide range of ideas and experiences. It enhances the quality of children's work across the curriculum and should enhance and enrich the learning process.

### **Aims**

- To develop children's individual computing capability and understanding
- To enhance children's experience of computing
- To ensure all children know how to stay safe online
- To enhance teaching and learning in other areas of the curriculum by cross curricular use of computing
- To develop computing as a tool for learning and investigation
- To equip pupils with the confidence and capability to use computing throughout their education, home and further work life.
- To recognise the potential, and deepen the necessity of computing in everyday life
- To stimulate interest in new technologies

### **Implementation of the Policy**

At St Michael's Primary School we use a variety of teaching and learning styles in Computing lessons. Our principal aim is to develop the children's knowledge, skills and understanding in Computing and we use a variety of teaching and learning styles in our lessons. We believe in whole class teaching methods and combine these with enquiry-based research activities.

We believe children learn best when teachers employ a range of strategies including:

- Demonstrating to the whole class/group using the Interactive Whiteboard
- Discussion with the whole class/group
- Individual or paired working

- Collaborative group work
- Encouraging pupils to demonstrate new skills to others

The objectives of Computing teaching in the school are based on the requirements of 'Development Matters' document regarding EYFS and the National Curriculum programmes of study for Key Stages 1 and 2. The Computing curriculum of the school will therefore help children to experience the following key aspects of the programme of study.

At St Michael's Primary School the computing curriculum provision covers the following topic areas (across all year groups):

- Text and multimedia
- Coding and algorithms
- Programming
- Digital Presentation
- Images, video and animation
- Sound
- Electronic communication
- Digital research
- Data handling
- Data logging
- Logo and control
- Simulations and spreadsheets
- Using the Internet safely
- E-safety

### ***Big Ideas in Computing***

#### **Computer Science:**

We learn the principle of information and computation, how digital systems work and how to put this knowledge to use through programming.

#### **Information Technology:**

We learn to create programs, systems and a range of content safely.

#### **Digital Literacy:**

We learn how to use, express ourselves and develop ideas safely, through information and communication.

### **St Michael's Primary School Approach to Computing**

At St Michael's Primary School we teach both discrete Computing lessons to develop knowledge, skills and understanding but also provide a range of opportunities throughout school to employ

Computing skills across the curriculum. Staff use the 'Teach Computing' Scheme of Work to support planning.

### **Personal Development**

Computing contributes to our children's social, moral, spiritual and cultural development through:

- Preparing the children for the challenges of living and learning in a technologically enriched, increasingly interconnected world.
- Making clear the guidelines about the ethical use of the internet and how we keep ourselves and others safe e.g. discussing the moral and social implications of cyberbullying.
- Acknowledging advances in technology and appreciation for human achievement.

### **Assessment**

At St Michael's Primary School we assess the children's work in Computing by making informal judgements as we observe the children during lessons.. Staff will store digital evidence including photos and videos on a secure iPad or on the school network. Gathering qualitative evidence by speaking to pupils, scrutinising pupil's work and observing lessons gives the subject leader a clear overview of standards across school.

### **Differentiation - scaffolding**

At St Michael's Primary School we aim to encourage all children to reach their full potential through the provision of varied opportunities. We recognise that our curriculum planning must allow children to gain a progressively deeper understanding and competency as they move through our school.

### **More Able Learners**

More able learners will be identified as part of our formative and summative assessment procedures. We will provide for their needs through a framework of high quality first teaching which focuses on ensuring the children are challenged appropriately. In addition, we will focus on developing their learning behaviours, including, greater reflection, problem solving and enquiry, making connections, higher order thinking skills and independent learning. The progress of more able learners will be rigorously tracked to ensure more able children reach their full potential

### **SEND/Inclusion**

Children who are identified as being on the SEND register will be given support as identified on their Individual Provision Map. A variety of support materials and advice are available from SENDCo, Mrs C Mackay. Children are supported in the first instance through quality first teaching. Lessons will be differentiated in line with the individual needs of the children. All provision for pupils with SEND is in line with the school's SEND policy.

### **Equal Opportunities**

At St Michael's Primary School the curriculum for Computing will develop enjoyment of and commitment to stimulating the best possible progress and the highest attainment for all our pupils

irrespective of social background, culture, race, gender, differences in ability and disabilities. All of our pupils have a secured entitlement to participate in Computing curriculum and our teaching approaches ensure the avoidance of stereotyping when planning work or organising groups. All the teaching staff agree that when using reference materials, they should reflect social and cultural diversity and provide positive images of race, gender and disability.

### **Resources**

At St Michael's Primary School there is a wide range of resources to support the teaching of Computing across the school. Specialist resources and equipment are stored across the school and should be returned after use. Technical Support is available fortnightly and contact can be made with via email if off-site support is needed.

### **Careers**

At St Michael's all the areas of our curriculum support children's interest and understanding in careers and help to raise aspiration. Reference will be made to why computing skills are important for communication in many jobs and also which careers rely on the need to use these specific skills.

### **Monitoring and Evaluation**

At St Michael's Primary School the Computing coordinator monitors planning and assessments – evaluating medium term plans and taking note of annotations, amendments and suggestions made by class teachers. They ensure that the curriculum has been covered and that there are no gaps.

Photographs of completed work and displays may be kept digitally by the coordinator as a portfolio, in order to monitor and support the raising of standards in Computing within the school. The coordinator takes responsibility for addressing any needs or concerns that arise as a result of this monitoring.

To monitor and evaluate Computing, the Computing subject co-ordinator does the following:

- Purchases and organises the appropriate resources.
- Supports colleagues in the teaching of Computing.
- Keeps up-to-date on the use of Computing in the curriculum and regularly attend training for subject leaders held by the LA and feedback new information and ideas to staff.
- Shares CPD opportunities.
- Conducts work/evidence scrutiny to assess the standards of Teaching and Learning through the children's work.
- Regularly reviews and updates the Computing Policy and contributes to the school's self-evaluation programme.
- Analyses cross-school summative assessment data.

# Computing Overview

September 2020 and then September 2022

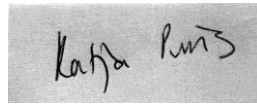
	Aut 1	Aut 2	Spr 1	Spr 2	Sum 1	Sum 2
EYFS	Algorithmic thinking Keyboard and mouse skills		Being a robot Mouse skills in games		Intro to coding Kodable Handling data	
KS1	<a href="#">Computing systems and networks – Technology around us</a> Keyboard and mouse skills	<a href="#">Creating media – Digital photography</a> (RE, Geog, Art)	<a href="#">Creating media – Digital writing</a> Changing Text (J2e – JiT - write)(RE)	<a href="#">Data and information – Pictograms</a> (J2e – JiT - pictogram) (Sci/DT)	<a href="#">Programming A – Moving a robot</a> (Beebot / Blue bot and APP)	<a href="#">Programming B – An introduction to quizzes</a> (Scratch jr app)
LKS2	<a href="#">Computing systems and networks – Connecting computers</a> Input and output - connects, networks and Wi-Fi	<a href="#">Creating media – Audio editing Audacity</a>	<a href="#">Creating media – Desktop publishing</a> Publisher or <a href="#">adobe spark</a> or Picollage (also APP) (Hist/Art)	<a href="#">Data and information – Data logging</a> Arduio Science Journal app (Sci )	<a href="#">Programming A – Sequence in music</a> <a href="#">Scratch</a> or J2code	<a href="#">Programming B – Repetition in games</a> <a href="#">Scratch</a> or J2code
UKS2	<a href="#">Computing systems and networks – Sharing information</a> Systems and devices	<a href="#">Computing systems and networks – Communication</a> World Wide Web Google, Bing, Yahoo!, Swisscows, DuckDuckGo, refine (Geog)	<a href="#">Creating media – Video editing</a> Youtube and webcams	<a href="#">Data and information – Spreadsheets</a> Excel and Google Sheets Chocolate (Hist/DT)	<a href="#">Programming A – Selection in physical computing</a> Lego wedo or ozobot	<a href="#">Programming B – Sensing</a> Scratch and review of programming or J2code

September 2021 and then 2023

	Aut 1	Aut 2	Spr 1	Spr 2	Sum 1	Sum 2
EYFS	Free play with beebots and programmable toys Whole class use of the Internet		Beebot commands Independent use of digital cameras / devices		Intro to coding Kodable Creating an pictures using a computer	
KS1	<a href="#">Computing systems and networks – IT around us</a> How IT improves our world	<a href="#">Creating media – Digital painting</a> (J2e – JiT - paint)	<a href="#">Creating media – Making music</a> <a href="#">Song Maker</a>	<a href="#">Data and information – Grouping data</a>	<a href="#">Programming A – Robot algorithms</a> (Beebots / Blue bots and J2e – JiT – Turtle)	<a href="#">Programming B – Introduction to animation</a> (J2e – JiT - animate)
LKS2	<a href="#">Computing systems and networks – The Internet</a> Input and output - connects, networks and Wi-Fi	<a href="#">Creating media – Animation</a> Stop-frame animation (iMotion / Stop Motion Studio) (Art)	<a href="#">Creating media – Photo editing</a> <a href="#">getpaint.net/</a> (Spanish/Art)	<a href="#">Data and information – Branching databases</a> (J2e – JiT - branch) (Sci)	<a href="#">Programming A – Repetition in shapes</a> <a href="#">turtleacademy.com</a> or <a href="#">Scratch</a> or J2code	<a href="#">Programming B – Events and actions</a> (Scratch jr app) or J2code
UKS2	<a href="#">Computing systems and networks – Communication</a> Searching the web (Geog)	<a href="#">Creating media – Vector drawing</a> Google Drawings	<a href="#">Creating media – Web page creation</a> <a href="#">Wix</a>	<a href="#">Data and information – Flat-file databases</a> (J2data) (Science)	<a href="#">Programming A – Variables in games</a> <a href="#">Scratch</a> or J2code	<a href="#">Programming B – Selection in quizzes</a> <a href="#">Scratch</a> or J2code

<https://teachcomputing.org/> EYFS – separate source

Chair of Governors ....



Signed: ... ..

Print Name: ... .. Katja Purvis.....

Date:...11/05/2021... ..

Head Teacher



Signed: ..... ..

Print name:.....GAVIN JOHNSTON.....

Date: .....11/05/21.....

REVIEW DATE ... May 2024... ..