

# Computing

## *Curriculum Intent:*

**The intention of our Computing Curriculum is to prepare our children for a rapidly changing world through the use of technology. Our high-quality Computing Curriculum is designed to enable them to use computational thinking and creativity to further understand the world. At the core of our Computing Curriculum is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding, we intend for our children to use information technology to create programs, systems and a range of content. We aim to ensure that pupils become digitally literate – able to use and express themselves and develop their ideas through information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.**

**My name is Miss Duggan and I am the Computing subject Champion. I am passionate about using Technology to enhance teaching and learning.**



## *Curriculum Vision:*

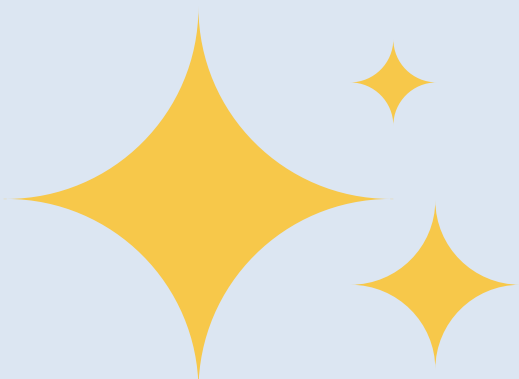
*Computing - Subject Champion*

**At Parish, we strive to ensure our children are “ready, respectful and responsible” users of information and communication technology, both now and in the future. Many jobs in 2030 have not yet been invented, therefore we are passionate about ensuring that our children are fully equipped to be able to function and work in our ever-changing technological society.**

## *Curriculum Sequencing:*

**The delivery of our core Computing offer is split into four curriculum strands; Computer Systems and Networks, Creating Media, Data and Information and Programming. Utilising teaching resources from the government funded ‘Teach Computing Curriculum’ provided by the National Centre for Computing Education, all year groups study the same curriculum strand during the same term of the year. Strands are progressively taught through a knowledge enabled approach to provide children with the technical knowledge and skills to apply their understanding over time through both unplugged and computer-based lessons. Throughout the academic year, seven transferrable concepts are also applied and revisited within each lesson to develop deep computational thinking and creativity. At the end of the unit, a relevant assessment task is completed to provide an opportunity to apply their knowledge of the key skills taught to date. The transferable knowledge and concepts taught within our discrete Computing curriculum are also built upon and applied through other subject areas.**

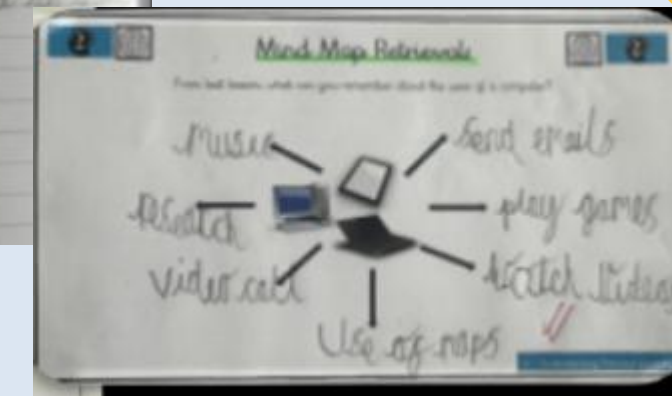
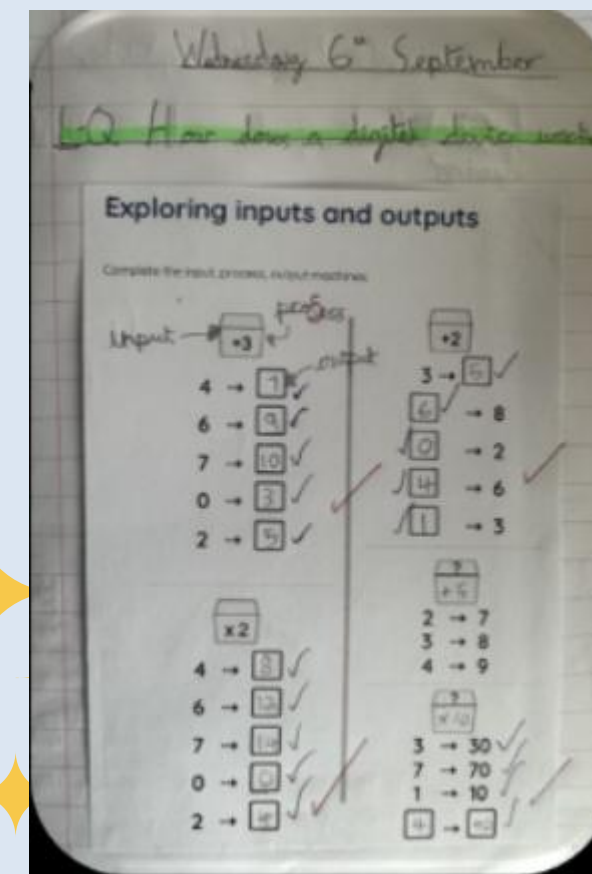
**National Online Safety [NOS] alongside our ‘Online Safety Reading Spine’ is used to plan and teach online safety from EYFS to Y6 as part of our Safeguarding Curriculum. The eight units per Key Stage are taught once per half-term and are delivered during Parish Spirit lessons. Links to online safety are also made within the Computing lesson sequence related to the guidance stated in ‘Education for a Connected World’.**



## Pedagogical Approach:

Lesson Part	Transferable Concept:
Exploration	Exploring.
Structured Discussion	Problem solving and collaborating.
Journaling	Creating and applying.
Reflection Time	Sharing and debugging.

**Our consistent lesson structure for Computing (used within each lesson taught) is cleverly designed to deliver the knowledge and transferrable skills needed to become active participants in a digital world. This approach complements the delivery of our Mathematics curriculum to develop computational thinking and creativity.**



## Curriculum Progression:

**Our bespoke planning utilises some resources from The National Centre for Computing Education (NCCE). Funded by the Department for Education, this approach provides evidence-informed, high-quality resources that are proven to inspire pupils and teachers alike. Our carefully crafted lesson structure incorporates 'Rosenshine's Principles of Instruction' for lesson delivery aimed at developing a deepening, long term and adaptable understanding of computational thinking, linked to our Mathematics curriculum.**

### FOUR CURRICULUM STRANDS

**Computer Systems and Networks**

**Creating Media**

**Data and Information**

**Programming**

**These strands and concepts have been chosen based upon the National Curriculum Programmes of Study for Computing.**



# Our Rainbow Promises in Computing:

## Resilience and Perseverance:

**Approach to teaching and learning, with open ended tasks aimed to encourage resilience and perseverance.**

**Clear development of key concepts, such as debugging, encouraging perseverance throughout the curriculum.**

## Articulate Learner:

**Development of practical computing skills such as typing and presentation.**

**Ensuring children are articulate when online, using formal language.**

**Use of Speak Its.**

## Influence Aspirations

**Links to computing based careers during our annual careers week.**

**Preparation for the world of work and digital careers.**

**Opportunity to become a digital leader.**

## Nurture Curiosity

**Use of a variety of interesting programmes and software including Flowol, Scratch and Kodu.**

**Link to other curriculum areas and the possibility of computing outside of the classroom.**

**Ability to create and be naturally curious to explore online and through programmes.**

## British and Christian Values

**Christian Values  
Through online safety:  
Love, trust, friendship.**

**British Value:  
Mutual respect.  
Rule of laws  
Individual liberty  
SMSC woven throughout.**

## Opportunities to Build on Knowledge and Skills

**Subject planning and delivery sequenced and includes:  
Creation of progressive knowledge planners using NCCE.  
Schema within and across subjects.**

**Opportunities for collaboration.  
Retrieval opportunities built into units.  
Built around Rainbow Promises.**

## Wellbeing and Health

**Curriculum Content:  
E-Aware and how to be safe online.  
Safer Internet Day.**

**Promote Personal Development and Wellbeing by:  
Consideration of opportunities to use modern technology to assist us in maintaining our physical and mental health.**





# Inclusive Practice in Computing:

## EYFS as the Bedrock of Learning:

**Despite Computing not being explicitly mentioned within the updated Early Years Foundation Stage (EYFS) statutory framework, we believe there are many opportunities for young children to use technology to solve problems and produce creative outcomes (through the characteristics of effective learning). For this reason, we have created bespoke EYFS knowledge planners for Computing, aimed at providing the foundations for further study and National Curriculum coverage.**

**Characteristics of Effective Learning.**

- 1.) Engagement – Playing and Exploring.**
- 2.) Motivation – Active Learning.**
- 3.) Thinking – Creative and Critical Thinking.**

## Strong Foundations:

**Across the Computing curriculum, we have clearly defined the knowledge that children need to learn from EYFS through to the end of Key Stage 2, supporting teachers to prioritise this within both their teaching and assessment, including through high-quality adult interactions.**

**When teachers identify weaknesses in children's knowledge or skills, staff are provided with both time and training to reflect on how the curriculum or teaching approaches may need to be adapted.**

## Meeting the needs of all learners:

**The planning that we use allows children to improve their own metacognition and access the lesson at their level. Children are encouraged to deepen their own understanding with depth not breadth of content.**

**To support the most able learners and deepen pupil understanding, teachers provide a focus on depth of knowledge and application with problem solving and debugging of activities. This is further enhanced with question prompts which are used for deeper understanding.**

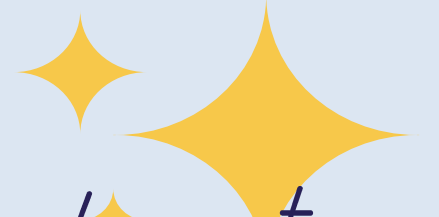
**Students are used as experts with a focus on independently completing tasks without adult support.**

**Pupils are given additional support within lessons dependent on their individual needs. This can be done on an individual or group basis.**

**Knowledge organisers (containing Milestone Knowledge) also support all learners to progress in their learning.**



# Wider Curriculum Considerations in Computing:



## Developing Cultural Capital:

**Cultural capital is the accumulation of knowledge, behaviours, and skills that a child can draw upon and which demonstrates their cultural awareness, knowledge and competence; it is one of the key ingredients a pupil will draw upon to be successful in society.**

**Through our Computing Curriculum we build cultural capital with a focus upon:**

- **Application of our school rules when online through our online safety.**
- **All children are provided with the opportunity to engage positively, critically and competently in the digital environment—thus enhancing digital citizenship.**
- **Understanding of transferrable skills that can be applied across all STEM subjects, preparing the children of Parish for the jobs of today and tomorrow.**

## Personal Development:

**The computing curriculum supports personal development by fostering digital literacy, ethical awareness, creativity, and collaborative skills essential for thriving in a digital society. This includes (but is not exclusive to):**

- **Building Digital Responsibility and Ethics**
- **Encouraging Creativity and Self-Expression**
- **Promoting Social and Emotional Skills**
- **Inspiring Future Aspirations including real-world application.**

## Assessment:

## Staff CPD:

**CPD programme completed and disseminated by Subject Champion through the Government funded 'Teach Computing Curriculum' provided by the National Centre for Computing Education.**  
**LDST Computing Curriculum Network providing training and resource collaboration.**  
**National Online Safety Training for all staff.**  
**Online Safeguarding Updates provided on a termly basis (including AI, filtering and monitoring).**  
**Technical support provided by The Little IT Company.**

**'Systems and Networks', 'Creating Media' and 'Data and Information' units are delivered for a minimum of eight hours each while 'Programming' are discretely taught for a minimum of sixteen hours as they are delivered across a term. All lessons are taught through our bespoke structured lesson sequence.**

**Retrieval activities are incorporated into lessons to make discrete connections to prior learning and sequentially build their knowledge. Children are assessed throughout each topic, including use of multiple-choice questions. Assessment data is uploaded to the Trust data system.**

