



## St. Bernadette's Catholic Primary Voluntary Academy

### Computing Policy

October 2021

#### **1. Overview**

The school believes that IT, computer science and digital literacy:

- are essential life skills necessary to fully participate in the modern digital world.
- allows children to become creators of digital content rather than simply consumers of it.
- provides access to a rich and varied source of information and content.
- communicates and presents information in new ways, which helps pupils understand, access and use it more readily.
- can motivate and enthuse pupils.
- offers opportunities for communication and collaboration through group working
- has the flexibility to meet the individual needs and abilities of each pupil.

#### **2. Main Educational Aims and Intent**

The aim of our curriculum is for Saint Bernadette's CVA pupils to have the skills to be independent, critical, motivated and resilient learners in preparation for the next stage of their education and life beyond education.

We aim:

- To facilitate our pupils with opportunities that allow them to gain enjoyment from challenges and to develop a keen work ethic.
- To equip our pupils with the confidence and competence to use a range of hardware and software available in the academy and in their everyday lives.
- To respond to new developments in technology with curiosity and criticality .
- To offer pupils opportunities to use Computing as a tool to enhance learning throughout the curriculum and to collaborate with others.
- To enable our pupils to understand how to use technology safely and responsibly, with consideration for their mental well being.

- To empower our pupils to be digitally literate and active participants in a digital world.
- To set our pupils on the path to life-long learning through the continual development of their skills in all areas of computing.
- To expose our pupils to the plethora of opportunities and careers technologies can provide.

### **3. Approaches to Teaching**

#### **Curriculum Organisation**

##### **Early years (see also early year's policy)**

It is important in the foundation stage to give children a broad, play-based experience of IT and computing in a range of contexts, including off-computer activities and outdoor play. Computing is not just about computers. Early years learning environments should feature IT scenarios based on experience in the real world, such as in role play. Children gain confidence, control and language skills through opportunities such as 'programming' each other using directional language to find toys/objects, creating artwork using digital drawing tools and controlling programmable toys. Outdoor exploration is an important aspect and using digital recording devices such as video recorders, cameras and microphones can support children in developing communication skills. This is particularly beneficial for children who have English as an additional language.

##### **By the end of key stage 1 pupils are taught to:**

- understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following a sequence of instructions
- write and test simple programs
- use logical reasoning to predict the behaviour of simple programs
- organise, store, manipulate and retrieve data in a range of digital formats
- Communicate safely and respectfully online, keeping personal information private, and recognise common uses of information technology beyond school.

##### **By the end of key stage 2 pupils are taught to:**

- design and write programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- use sequence, selection, and repetition in programs; work with variables and various forms of input and output; generate appropriate inputs and predicted outputs to test programs
- use logical reasoning to explain how a simple algorithm works and to detect and correct errors in algorithms and programs
- understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration
- describe how internet search engines find and store data; use search engines effectively; be discerning in evaluating digital content; respect individuals and intellectual property; use technology responsibly, securely and safely
- Select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

## **Environment**

### **Planning**

The majority of the Computing Curriculum is taught in discrete Computing lessons using Academies personalised long term plan . To ensure we are teaching a progressive curriculum and to take account of the mixed year group classes that run throughout our academy, our long term coverage plan is split topics across a two-year cycle. This is supported by a skill progression document that supports teachers to challenge and support pupils at the appropriate levels. Teachers are also encouraged to utilise cross-curricular links and are building Computing into planning in other areas including English, Maths and Foundation Subjects.

- A long-term plan in the form of a Coverage Plan is in place, this is based around the National Curriculum.
- Short-term planning for Computing is undertaken by all class teachers and PPA cover staff, using the provided Purple Mash or other appropriate planning as a starting point. Essential elements for all short-term Computing planning are: objective, activity, differentiation and assessment incorporating the success criteria/learning outcome.
- Success criteria are specific. Teachers assess against the objectives. Marking is linked to the success criteria. Teachers assess against the objectives. Marking is carried out in accordance with our academy marking policy and is linked to the success criteria. Marking identifies ways forward and when appropriate, sets further questions to challenge and move the learning forward further.
- A variety of resources (especially interactive ones are used to enhance learning).
- Computing planning is monitored by the Computing Leader.

### **Inclusion**

The academy aims to make all pupils feel included. We recognise the entitlement of all pupils to a balanced and broad curriculum.

We recognise that all classes have children with widely differing Computing abilities. This is especially true when some children have access to Computing equipment at home, while others do not. We provide suitable learning opportunities for all children by matching the challenge of the task to the ability and experience of the child. We achieve this in a variety of ways, by:

- setting common tasks which are open-ended and can have a variety of responses;
- setting tasks of increasing difficulty (not all children complete all tasks); grouping children by ability in the room and setting different tasks for each ability group;
- providing resources of different complexity that are matched to the ability of the child;
- using aids and prompts to support the ability of the child; - using class experts to support the work of other children.

- All children in Key Stage Two are encouraged to attend Computing after school club including pupil premium, EAL and SEND.
- All Computing sessions should take into account the particular requirements for children on the SEND register, as outlined in their IEPs and in accordance with the academy SEND Policy document.
- Pupils with EAL are given additional support in understanding tasks and computing terminology.

- The Gifted and Talented children receive a differentiated curriculum that provides challenge.
- Pupils belonging to pupil premium, SEND and EAL groups often access Computing in other areas of the curriculum to aid in their learning; this can be in full class lessons, individual time or group intervention. (For example, a computer for typing rather than writing or a recording device to record sentences.)
- The Equal Opportunities Policy document should be consulted to ensure balanced and fair access to the Computing curriculum for all groups.
- Opportunities via the National Framework should be taken to encourage positive attitudes towards our multi-cultural and multi-ethnic society

## **Resources**

The academy recognises that the most valuable classroom resource is the class teacher. Therefore, the work of other adults, including TAs who work in a range of support programmes should be carefully planned by the teacher, in consultation with those adults. The academy acknowledges the need to continually maintain, update and develop its resources and to make progress towards a consistent, compatible PC system by investing in resources that will effectively deliver the strands of the National Curriculum and support the use of computing across the academy. (this can be a challenge due to Academy budgets)

- Teachers are required to inform the Computing Leader or Primary Tech of any faults as soon as they are noticed.
- A class set of chromebooks is located in KS1, LKS2 and UKS2 for the respective classes to make use of, along with EYFS who cant access any set when required.
- Computing network infrastructure and equipment has been sited so that:
  - Every teaching member of staff has their own chromebook and access to the staff shared area.
  - Each Class teacher has an iPad.
  - A set of microphones, cameras and flip camcorders are available.
  - There are 2 trolleys of iPads available for class use (30 in each).
  - There are Beebots available for use with or without the iPad app.
  - Data loggers are available for use.
  - There is a computer in the library.
  - A large variety of software is available for use in lessons and staff are encouraged to develop their knowledge and use of this.
  - The iPads have many different apps installed for different use and these are updated and controlled via Primary Tech as the Academy has invested in LightSpeed enabling Primary Tech to update and control all Apps which are requested to be added to the ipads.
  - Staff are encouraged to openly discuss and make suggestions to improve software further for the Computing Leader to look into.

The safety of pupils in the academy is priority and so there are policies and procedures in place for safety and security in relation to Computing. (Also see other policies)

- The Technical Leader will be responsible for regularly updating antivirus software.
- Use of Computing will be in line with the academy Acceptable Use Policy. All staff must sign a copy of the policy. This will need to be accepted on every computer log in.
- Children and parents sign a 'Responsible internet access and ICT use for pupils' form when they enter the academy.
- Parents will be made aware of the Acceptable Use Policy' at academy entry.
- All pupils and parents will be aware of the school rules for responsible use of Computing and the internet and will understand the consequence of any misuse.
- The agreed rules for safe and responsible use of Computing and the internet will be displayed in all computing areas.
- Equipment is maintained to meet the agreed safety standards.
- All staff and pupils will adhere to the E-Safety Policy.
- Students and staff know how to report internet content that is inappropriate or of concern.
- The filtering systems used in our School block inappropriate content, including extremist content.
- Where staff, students or visitors find unblocked extremist content they must report it immediately to Computing Leader, Technical Leader or a member of the Senior Leadership Team.
- The rules of E-Safety are made clear to children. If a child breaks these rules, they will be denied internet access for a period of time after which the situation will be reviewed.

### **Homework**

Homework provides children with opportunities to practise and consolidate skills and knowledge, to develop and extend their strategies, and prepare them for future learning. The academy uses Purple Mash and TT Rockstars facilities to enable children to work with software at home. This is not always set as homework but children enjoy using these so will choose to spend their time on them and involve parents.

- Homework is not often set directly for Computing but Computing is secondary in some other homework set.

- Homework can be set as part of the plenary session, as it should relate to work being undertaken in class. Opportunities should also be created to provide feedback on homework the children have been asked to complete.

### **Training (CPD)**

All staff are encouraged to take full advantage of Computing training opportunities, to develop their confidence and update their expertise, through academy and local INSET. Computing Leader to support staff where appropriate, completing regular audits of subject knowledge to inform training decisions. Computing Leader to lead training to staff when a course has been attended or new developments are released. A record of training needs and provision is maintained by the Assistant Headteacher

### **4. Roles and Responsibilities**

**The Computing Leader's role will include the following responsibilities:**

- To ensure that the Computing policy document reflects the requirements of the National Curriculum and the needs and ethos of the academy;
- To review and update the Computing policy document every two years;
- To ensure E-Safety policy and Acceptable Use Policy documents are kept up to date and reflect requirements;
- To monitor usage of technology and ensure safety;
- To liaise with Technical Leader to ensure security and safety;
- To provide leadership and guidance in Computing and with cross-curricular links to staff;
- To promote benefits of Computing within school;
- To maintain personal subject knowledge and remain up to date with constant developments in the subject;
- To be aware of new hardware and software available and respond to developments where possible;
- To be actively involved in whole-school planning, in cooperation with other subject leaders, in order to maintain a broad, balanced and progressive curriculum;
- To monitor, review and update long-term planning for Computing;
- To monitor and evaluate short-term planning for Computing and evaluate this against the

requirements of the National Curriculum for Computing;

- To monitor and evaluate teaching delivery against the requirements of the National Curriculum for Computing;
- To oversee academy assessments in Computing, in accordance with Assessment Policy guidelines, and to be actively involved in Computing target setting through the academy;
- To monitor pupils' outcomes over units of work (at least termly).
- To lead staff meetings and training sessions on issues related to the implementation of the Computing curriculum throughout the academy;
- To attend relevant training and subject leader meetings to update knowledge, and to disseminate advice and current information in the subject to staff;
- To undertake an audit/evaluation and action plan on an annual basis;
- To maintain knowledge of resources and any issues with resources in the academy;
- To evaluate and assess the resource base for Computing teaching, including the identification of future resource needs;
- To promote parental and governor interest in Computing;
- To liaise with other schools and agencies.

**The Technical Leader's role will include the following responsibilities:**

- To regularly update anti-virus software.
- To support teaching staff with using Computing software and hardware
- To support teaching staff when software or hardware is not working (on a daily basis in class or when liaising with Primary Tech/ outside agencies is needed due to technical/ equipment errors)

**The Class Teacher in Computing:**

The class teacher's role is crucial in the provision of high quality teaching and learning in Computing. The academy supports all teachers, so that they:

- Take account of the age, gender, ethnicity and capability of their pupils;
- Show good subject knowledge;
- Plan effectively, setting clear objectives which pupils understand;
- Challenge and inspire pupils, having high expectations of them;
- Use a variety of methods which enable all pupils to learn effectively;
- Manage pupils well and insist on high standards of behaviour;

- Use time, support staff, other adults and resources effectively;
- Assess pupils' work thoroughly and use assessments to help and encourage pupils to make progress.

### **The Pupil in Computing**

The academy supports pupils, so that they:

- Acquire new knowledge and skills, linked to targets;
- Develop ideas;
- Increase their understanding;
- Apply intellectual and creative effort in their work;
- Are productive and work at a good pace;
- Work collaboratively;
- Show interest and pride in their work;
- Are able to sustain concentration;
- Think and learn for themselves in independent sessions;
- Demonstrate in the plenary and at other times that they understand what they are doing, how well they have done and how they can improve;
- Listen constructively.

## **5. Assessment and Reporting**

### **Assessment**

The academy uses O-Track (pupil tracking) and Class Track as part of its assessment procedure. Marking in Computing is in accordance with the academy marking policy and is often a mix of verbal feedback and written feedback when appropriate. All Computing assessments are made in accordance with Assessment Policy guidelines. Attainment and progress is reviewed at the end of each term by the Computing Leader to ensure teaching and assessment is taking place. On completion of tasks/units of work (minimum termly) a printed and annotated piece should be provided to the Computing Leader and placed in a folder to demonstrate achievement from across the school.

### **Reporting**

Reporting to parents of attainment and progress in Computing will be in accordance with Government Legislation and the academy's Assessment, Recording and Reporting policy. Computing Leader will monitor and keep records from O Track (including reports) for data and



coverage. Children are made aware of their targets across the curriculum and work hard to achieve them.

## **6. Parental Involvement**

We aim to involve parents directly in the life of the academy, and thus in the development of children's skills, knowledge and understanding in all subjects, including Computing.

- Parents are recognised as educators too, and their support in Computing is encouraged at every opportunity, formally through homework (Computing is often the secondary homework for example research).
- Children are encouraged to use Google Classrooms, Purple Mash and TTRockstars at home to complete games, tasks, homework and research.
- Parental support in using technology outside of school is also encouraged.
- Monitoring of safe and responsible usage is recognised as vital for parents at home (see also E-Safety Policy).

## **7. Monitoring and Evaluation**

Monitoring and evaluation of Computing-related planning, teaching delivery and assessment will be undertaken by the Computing Leader during observations and work scrutinies. (Currently scheduled for Lent 2021) The subject leader will then evaluate the action plans which then feeds into the Academy Development Plan. Governors are kept updated and informed, with the Governor(s) assigned to monitoring Computing kept abreast of developments, progress and changes within the subject. Computing Leader to look annually at strengths and weaknesses in the subject for both staff and pupils and then move forward from there.

## **Supporting documents**

The following school policy documents should be consulted to support the Computing Policy:

- E-Safety Policy
- Acceptable Use Policy
- Assessment, Recording and Reporting Policy
- Marking Policy
- SEND Policy
- Equal Opportunities Policy
- Safeguarding Policy
- Continuing Professional Development Policy
- Homework Policy

## **Policy Review**

The Computing Policy should be reviewed and updated every two years. This will be carried out during the half term when computing is the focus subject in the subject review cycle.

Year of next review: 2023

(awaiting governor approval)