

Computing Policy Brierley CE (VC) Primary School

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1. Aims

This policy is for the staff in our school. It aims to set out:

- > Our approach to teaching, monitoring and assessing Computing knowledge and skills
- > How we will make sure our provision for the teaching of Computing is of consistently high quality
- Can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- Can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- Can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- > Are responsible, competent, confident and creative users of information and communication technology

2. Legislation and guidance

This policy reflects the requirements and expectations set out in:

- > The National Curriculum programmes of study for Computing
- > The Special Educational Needs and Disability (SEND) Code of Practice 2014
- > The Equality Act 2010

3. Our vision for Computing in our school

Our school aims to develop pupils' skills in computing through analysis, exploration and presentation. By the time that pupils move on from our school, our aim is for them to:

- > Be computer literate
- > Have a positive attitude towards technology
- > Be confident, creative and independent learners
- > Use a variety of technology to develop depth in their knowledge and skills
- Be curious and creative when it comes to computing for example: to learn what algorithms are which leads them to the design stage of programming in KS2
- > Be able to explain the thinking behind their algorithms
- > Feel confident speaking in class and be able to clearly explain their understanding and ideas
- Listen carefully and sensitively to adults and their peers

4. Our guiding principles for the teaching of Computing

We teach Computing best when:

- > There's a joyful culture around reading in the school
- All staff feel they have the knowledge, skills, understanding and professional support they need to teach Computing effectively
- > There's sufficiently detailed and frequent ongoing assessment of pupil progress
- We expose pupils to different types of reading material, such as through stimulating, high-quality and curiosity-inspiring classroom displays
- > We involve families in supporting their child
- > The Computing curriculum is coherently planned and sequenced
- We identify where pupils have learning gaps or aren't making the expected progress, and make sure interventions target these
- > Teaching resources are available, up to date, varied and diverse, and match pupil and curriculum needs
- > We engage pupils in high-quality back-and-forth interactions
- > We model new skills to pupils
- We support pupils with speech, language and communication needs, for example by putting on extra small-group storytimes

5. Roles and responsibilities

5.1 The headteacher

The headteacher is responsible for:

- Building a team of expert teachers who know and understand the processes that underpin learning to use computational thinking and creativity
- Providing teachers with the appropriate training and resources so that they can competently deliver the Computing curriculum
- Creating a stimulating school environment where pupils are exposed to different types of digital material, such as through displays, devices and other classroom resources

5.2 The Computing lead

Our Computing subject lead is Miss Tate and Mrs Sapey. They're responsible for providing leadership and management for Computing to secure:

- > High-quality teaching and subject knowledge of staff
- > A coherently planned and sequenced Computing curriculum
- > Consistent assessment and accurate teacher judgements within Computing
- > Effective use of resources

5.3 Teachers

Teachers are responsible for:

- > Planning effective Computing lessons
- > Providing opportunities for pupils to apply their Computing skills in a variety of ways
- > Completing the relevant marking and assessment
- > Making sure that support staff have:
 - Access to planning materials and resources
 - o The knowledge and skills they need to support and challenge pupils

6. Curriculum

Key Stage 1

Pupils should be taught to:

- > Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions
- > Create and debug simple programs
- > Use logical reasoning to predict the behaviour of simple programs
- > Use technology purposefully to create, organise, store, manipulate and retrieve digital content
- > Recognise common uses of information technology beyond school
- Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies

Key Stage 2

Pupils should be taught to:

- Design, write and debug 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
- Use logical reasoning to explain how some simple algorithms work 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
- Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
- Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information

use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

6.1 Timetabling

Pupils will receive at least 1 hour per week in order to build on their knowledge and understanding of our Computing Curriculum.

6.2 Cross-curricular links

We will facilitate cross-curricular learning of Computing skills, making sure that the links with other curriculums are natural and not forced. This will be achieved through activities in other subjects such as:

- > Annotating sources
- Group discussions
- > Mathematics
- > Topic research
- > Science
- > Design and technology

6.3 Differentiation

We will provide suitable differentiation to make sure that every pupil makes maximum progress in Computing, by:

- > Recognising where some pupils need specific help with their Computing skills, e.g. if they are dyslexic
- > Providing resources such as writing frames to scaffold pupils' learning
- Identifying pupils who would benefit from more support in an area of their Computing learning, and running small intervention groups for targeted support each week to aid their progress and attainment. We will monitor these closely to move pupils in and out of these groups as needed
- Making sure pupils who need it are extended through the use of additional, more-demanding and openended tasks and planned challenges within each lesson

7. Marking and feedback

Feedback will clearly explain to pupils what they're doing well, and what they need to do next to continue to improve their work.

It will be given weekly by monitoring the pupils progress and providing feedback verbally.

8. Monitoring, assessment and moderation

8.1 Monitoring

We will monitor teaching and learning of Computing in our school to make sure that all of our pupils make the best possible progress from their starting points.

Computing leaders will monitor and evaluate the impact of teaching on pupils' learning through:

- > Conducting learning walks
- > Reviewing marking and feedback
- > Termly pupil progress meetings
- > Gathering input from the school council

- > Planning scrutinies
- > Device scrutinies

8.2 Assessment

We will track pupils' progress using a combination of formative and summative assessment through ongoing formative assessment throughout every lesson and in-school summative assessment in the form of termly quizzes.

Our pupils will sit the following formal assessments:

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.

We will provide regular targets for pupils, and provide termly verbal reports against these at parents' evenings. Pupils will receive a written report quarterly.

8.3 Moderation

We will standardise writing samples to:

- Demonstrate how pupils' work meets National Curriculum attainment targets for KS1 and KS2, to help with assessment
- > Make sure staff have a consistent approach to marking pupils' work

We will refer to the Standards and Testing Agency (STA)'s exemplification materials for $\underline{KS1}$ and $\underline{KS2}$ to support with this.

We will moderate teacher assessments of Computing every term.

For each National Curriculum statement, we will:

- State what the activity involved, for example if it was done in controlled conditions or involved specific resources
- > Explain how the evidence was collected, for example by observation, written work or drawing
- > Indicate how much support was given to the pupil during the activity
 - Record the outcome of the activity.

9. Learning environment

Pupils will learn Computing in spaces that:

- > Are well-organised
- Contain appropriate and good-quality resources for pupils to refer to (in a space where they can find or see them easily)
- > Are quiet
- > Have minimal distractions, for example not containing a distracting amount of decoration

10. Resources

Equipment

We will provide a range of information technology including:

Laptops, IPads, BeeBots and Micro-chips

11. Review

This policy will be reviewed every year by the headteacher and Computing leads. At every review, the policy will be shared with the full governing board.

12. Links with other policies

This policy links with the following policies and procedures:

- > Curriculum policy
- > SEN/SEND policy and information report
- > Marking and feedback policy
- > Assessment policy
- > Non-examination assessment policy
- > Equality information and objectives
- > Behaviour policy
- > Early Years Foundation Stage (EYFS) policy