Birchwood Grove Computing Curriculum

Overarching Aims A1

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.

Early (KS1)	Middle (Year 3/4)	Late (Year 5/6)

National Curriulum:N1
Pupils should be taught to:

a) understand what algorithms are; how they are implemented as pro grams on digital devices; and that programs execute by following precise and unambiguous instructions

b) create and debug simple programs

c) use logical reasoning to predict the behaviour of simple programs

d) se technology purposefully to create, organise, store, manipulate and retrieve digital content

e) use technology safely and respectfully, keeping personal informa tion private; know where to go for help and support when they have concerns about material on the internet

f) recognise common uses of information technology beyond school.

National Curriculum: N2
Pupils should be taught to:

a) design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts

b) use sequence, selection, and repetition in programs; work with variables and various forms of input and output

c) use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs

d) understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportuni ties they offer for communication and collaboration

e) use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content

f) use technology safely, respectfully and responsibly; know a range of ways to report concerns and inappropriate behaviour

g) 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.

Our School Curriculum: Se1
Pupils should be taught:

a) to talk about what information they need and how they can find and use it [for example, searching the internet or using printed material,

b) to use text, tables, images and sound to develop their ideas

c) how to share their ideas by presenting information in a variety of forms [for example, text, images, tables, sounds]

d) to present their completed work effectively [for example, for public display].

e) review what they have done to help them develop their ideas

f) describe the effects of their actions

g) talk about what they might change in future work.

Pupils should be taught about:
School Curriculum: Sl1

a) to talk about what information they need and how they can find and use it [for example, searching the internet or using printed material,

b) how to prepare information for development using ICT, including selecting suitable sources, finding information, classifying it and checking it for accuracy [for example, finding information from books or newspapers, creating a class database, classify- ing by characteristics and purposes, checking the spelling of names is consistent]

c) how to develop and refine ideas by bringing together, organising and reorganising text, tables, images and sound as appropriate [for example, desktop publishing, multimedia presentations]

d) review what they and others have done to help them develop their ideas

e) describe and talk about the effectiveness of their work with ICT, comparing it with other methods and considering the effect it has on others [or example, the impact made by a desktop-published newsletter or poster]

f) talk about how they could improve future work.

Birchwood Grove Computing Curriculum

Knowledge (all)

- Understand and apply the fundamental principles and concepts of computer science including abstraction, logic, algorithms and data representation
- Analyses problems in computational terms and have repeated practical experiences of writing computer programs in order to solve such problems
- Evaluate and apply information technology , including new or unfamiliar technologies, analytically solving the problem
- All pupils are responsible, competent, confident and create users of information communication technology

RRS (articles that link):

Article 13– Your right to have information

Article 28– Your right to learn and go to school

Article 29– Your right to become the best that you can be.

Article 36– You have the right to be protected from things that could harm you.

Key Curriculum Skills

Effective communication

Collaboration

Questioning- thinking critically

Being able to justify their opinion

Organisation/Time management

Creativity/Thinking skills

Inquisitiveness

Reflecting

Independence

Links (all)

- School Council
- PSHCE
- Englis
- Maths