

## Dishforth Airfield Primary School: Computing



### Intent

At Dishforth Airfield, it is our intent that our children become independent learners who can navigate the world of technology in school and the wider world confidently and safely. We teach a range of skills using every day and specialist technologies which will ensure our pupils have a good understanding of how the computing programmes and equipment they will encounter throughout their education and in their home life can be used safely to support successful learning and communication. Within our computing curriculum we aim for our children to know more, remember more and understand more

The National Curriculum for computing aims to ensure that all pupils are taught to:

### Key Stage 1

- 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

- 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.

At Dishforth Airfield Primary School we ensure that children are taught the National Curriculum content to a high standard using the Switched On Computing scheme to support planning.

## Implementation:

### Early Years

Whilst technology is not featured in the updated Early Years Framework, Dishforth Airfield Primary has consulted with expert advisors to make links to different areas of the framework and uses the Switched On Computing Reception unit to provide a coherent scheme of work which can be adapted to suit younger children in Nursery. Children in Early Years are given regular access to: familiar technology in role play and adult led tasks; age appropriate software on iPads and in Net books as well as accessing simple programming hardware like Bee Bots. The Internet is also included in sessions relating to keeping safe and communication.

### Key Stage 1:

Children in KS1 have a 1-hour computing lesson each week based on the Switched On Computing scheme with a different focus each half term. The lessons build up skills in relation to a piece of software which allows the children to create a variety of end products including: videos; simple computer games; books and pictures. In addition, a continuous thread runs through all units addressing internet safety and the different uses of technology both in and out of school.

### Key Stage 2:

In Key Stage 2 (KS2), children continue to have a discrete 1-hour computing lesson each week. Our teaching follows the National Curriculum and the Switched On Computing Scheme of Learning for Primary Computing. This involves a progressive scheme of learning across Year 3-6 where the children are able to build upon their prior knowledge. Due to our highly mobile school community, we pre-assess children at the start of each unit and make use of pre-teaching where necessary to support our new starters prior to their Computing teaching sessions this allows any gaps which may exist to be closed as learning progresses.

### Key features of our Computing curriculum:

- High expectations of every child
- Using expertly written programming through the Switched On Computing framework
- A variety of stimulating activities using a range of software and hardware
- Using skills which address learning in: digital literacy; information technology and computer science.

### Planning

At Dishforth Airfield, we use the Switched On Computing resources to support us in our planning.

- Long term plans map out the units to be covered each term.
- Medium term plans identify learning objectives and outcomes for each unit, as well as indicating the skills and vocabulary being taught.
- Short term plans prepared by each teacher, highlight the skills and objectives of the lesson, and identify resources and appropriate differentiation. They also indicate key questions and vocabulary.

## Structure of a lesson

1. Activate previous learning with a recap on learned vocabulary and strategies.
2. Introduction or recap of the learning objective with modelling of what is expected.
3. Independent or supported work to use the appropriate software and hardware to attain the objective.
5. Plenary

## Resources

- Netbooks, iPads, Bee Bots
- Central resources are kept in the stock cupboard and in the hall and in the staff room.
- All software highlighted in the Switched On Computing planning has been installed by schools ICT on the appropriate equipment.

## Assessment

Due to the highly mobile nature of our school community, early assessment of existing knowledge is undertaken by teachers and teaching assistants and fed into planning to ensure that appropriate next steps are taken. Throughout lessons, misconceptions are dealt with immediately and high attaining pupils are challenged appropriately.

## Key stage 1 & 2

- Formative assessments are made during our computing lessons. Practitioners observe, question and evaluate lesson outcomes to further determine progress made and the next steps in learning.
- The Rising Star progression framework is used as a guide for end of unit teacher assessment.

## Monitoring procedures

The Head teacher and computing subject leader play a central role in the monitoring and evaluation of the quality of teaching and learning of Computing in the school.

The monitoring strategy:

1. Discussions with pupils about their learning.
2. Lesson 'drop ins' and observations take place in all classes throughout the year.

The subject leader is responsible for monitoring attainment and progress, the outcomes of which are collated in the subject leadership folder and fed back to staff at an appropriate time.

## Impact

As a result, learners will;

- Know more, remember more and understand more about: safe and effective use of the internet; the creation of simple, logical programmes and online content and the use of different information technology

