Computing at Oxenhope C of E Primary School

School Vision

We provide the rich soil allowing children to flourish and develop deep roots. We nurture **growth**, enabling children to thrive as our Christian values blossom in their lives. We cultivate a sense of pride in our rural **community** where children are **loved** and valued.

May our children flourish in their youth like well-nurtured plants. Psalm 144 v 12.

Throughout our curriculum and school life, along with our school vision, these three golden strands permeate through everything we do.

Community

Jesus often spoke of unity in our communities and encouraging one another on our journey. He spoke of bearing each other's burdens in love and helping those in need.

'Live in harmony with one another.' Romans 12 v 16

Love

It says in the Bible that God is Love and encompasses all that is loving and good. Jesus showed the ultimate unconditional love when he laid down his life for us on the cross. Therefore, this love should lead to a desire to love other people.

'Live a life filled with love, following the example of Christ. He loved us and offered himself as a sacrifice for us.' Ephesians 5 v 2

Growth

Just like a plant, we must endure the difficult times along with the good; but God has sent us his Holy Spirit to help and strengthen us so we can bear fruit and grow in the likeness of Christ.

'Grown in the grace and knowledge of our Lord and Saviour Jesus Christ.' 2 Peter 3 v 18

Computing at Oxenhope

Intent:

Within an ever changing and technological world, Oxenhope C of E Primary School understands and values the importance of teaching Computing from a young age. We acknowledge that future generations will rely heavily on their computational confidence and digital skills to support their progress within their chosen career paths.

Therefore, it is our school's aim to equip children with the relevant skills and knowledge that is required and to offer a broad and balanced approach to computing providing engaging opportunities.
Online safety is an integral part to a child's computing education and everyday life. Therefore, we intend to support our pupils understanding of how to stay safe online.

Implementation:

Computing is taught weekly using Barefoot computing for Reception and NCCE for KS1 and 2. Computing is taught by our experienced and skilled HLTA from Years 2 – 6.

Impact:

Within Computing we encourage a creative and collaborative environment in which pupils can learn to express and challenge themselves. The success of the curriculum itself will be assessed through end of unit online tests, regular pupil voice sessions, lesson observations. This will then inform future adaptations of the schemes of work and help to ensure that progression is evident throughout school.

In order to demonstrate that we have accomplished our aims, pupils at Oxenhope Primary School should:

- Be enthusiastic and confident in their approach towards Computing.
- Have a range of strategies to keep themselves safe on line
- Present as competent and adaptable 'Computational Thinkers' who are able to use identified concepts and approaches in all areas of their learning.
- Be able to identify the source of problems and work with perseverance to 'debug' them.
- Create and evaluate their own project work.

- Have a secure understanding of the positive applications and specific risks associated with a broad range of digital technology.
- Transition to secondary school with a keen interest in the continued learning of this subject.

Computing Long Term Plan

<table>
<tr><td colspan="7">RECEPTION
Computer science
Information technology
Digital literacy</td></tr>
<tr><td colspan="3">Autumn term</td><td colspan="2">Spring term</td><td colspan="2">Summer term</td></tr>
<tr><td colspan="3">Explore the movement of programable toys
Operate technology and digital equipment with support
Interact with multimedia software to make something happen on screen with support

Know to ask an adult before using a tablet or Interactive whiteboard</td><td colspan="2">Understand how programmable toys move
Operate technology and digital equipment
Interact with multimedia software to make something happen on screen independently

Know to seek support when unsure about digital content
and knows how to report it</td><td colspan="2">Plan a set of instructions for a programmable toy and make it move
Select and use technology for particular purposes

Select appropriate applications that support an Identified need – for example in deciding how best to make a record of a special event in their lives e.g. photograph or video
Understand that software and tools can be used to communicate though text, images and sounds

understand that they should not talk to anyone they do not know online

Understand that a digital footprint is permanent and can be shared e.g. unkind text messages</td></tr>
<tr><td></td><td><u>AUTUMN 1</u>

<u>COMPUTING SYSTEMS AND NETWORKS</u></td><td><u>AUTUMN 2</u>

<u>CREATING MEDIA</u></td><td><u>SPRING 1</u>

<u>CREATING MEDIA</u></td><td><u>SPRING 2</u>

<u>DATA AND INFORMATION</u></td><td><u>SUMMER 1</u>

<u>PROGRAMMING A</u></td><td><u>SUMMER 2</u>

<u>PROGRAMMING B</u></td></tr>
</table>

Year 1	COMPUTING SYSTEMS AND NETWORKS Technology around us	CREATING MEDIA Digital painting	CREATING MEDIA Digital writing	DATA AND INFORMATION Grouping data	PROGRAMMING A Moving a robot	PROGRAMMING B Programming animations
Year 2	COMPUTING SYSTEMS AND NETWORKS IT all around us	CREATING MEDIA Digital photography	CREATING MEDIA Making music	DATA AND INFORMATION Pictograms	PROGRAMMING A Robot algorithms	PROGRAMMING B Programming quizzes
Year 3	COMPUTING SYSTEMS AND NETWORKS Connecting computers	CREATING MEDIA Animation	CREATING MEDIA Desktop publishing	DATA AND INFORMATION Branching databases	PROGRAMMING A Sequence in music	PROGRAMMING B Events and actions
Year 4	COMPUTING SYSTEMS AND NETWORKS The internet	CREATING MEDIA Audio editing	CREATING MEDIA Photo editing	DATA AND INFORMATION Data logging	PROGRAMMING A Repetition in shapes	PROGRAMMING B Repetition in games
Year 5	COMPUTING SYSTEMS AND NETWORKS Sharing information	CREATING MEDIA Vector drawing	CREATING MEDIA Video editing	DATA AND INFORMATION Flat-file databases	PROGRAMMING A Selection in physical computing	PROGRAMMING B Selection in quizzes
Year 6	COMPUTING SYSTEMS AND NETWORKS Internet communication	CREATING MEDIA 3D modelling	CREATING MEDIA Webpage creation	DATA AND INFORMATION Spreadsheets	PROGRAMMING A Variables in games	PROGRAMMING B Sensing

Computing Skills Progression

1. Primary Computing – National Curriculum statements

EYFS

Statements set out in the EYFS curriculum for the Area of Learning Technology:

30-50 months
Knows how to operate simple equipment, e.g. turns on CD player and uses remote control.
•Shows an interest in technological toys with knobs or pulleys, or real objects such as cameras or mobile phones.
•Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images.
•Knows that information can be retrieved from computers

40-60 months
•Completes a simple program on a computer.
•Uses ICT hardware to interact with age-appropriate computer software.

Early Learning Goal: Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.

Key stage 1

Pupils should be taught to:

Computer Science

- 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

IT

- use technology purposefully to create, organise, store, manipulate and retrieve digital content

Digital Literacy

- 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:

Computer Science

- 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

IT

- 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

Digital Literacy

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