# OUR LADY OF LOURDES CATHOLIC PRIMARY SCHOOL

School **Curriculum Policy and Subject Guidance** for

# Computing

**(2020/21)**

**Curriculum Leader:** Miss Naomi Powell

## Our School Vision:

*"We want our school to be a safe, secure and exciting place to learn and grow in Christ. A place where children, staff, families and governors work closely together to answer Christ's call."*

Our Catholic School community works with a Christian purpose:

- To promote an enthusiasm for enjoyment of learning
- To provide a broad and well balanced curriculum
- To challenge children to reach their full potential
- To learn about God and his creation
- To answer Christ's call through our love for each other
- To foster in children independence and a sense of responsibility

***"For you are precious in my eyes"***
*(Isaiah 43)*

## Contents of this Policy

## CURRICULUM AIMS – OUR INTENTION:

### Through Computing at Our Lady of Lourdes we aim for all children to learn to:

- Provide a relevant, challenging and enjoyable curriculum for all
- use ICT and computing as a tool to enhance learning throughout the curriculum
- To respond to new developments in technology
- To equip pupils with the confidence and capability to use ICT and computing throughout their later life
- To develop the understanding of how to use ICT and computing safely and responsibly
- Value and respect their work and the work of others
- Discuss their work using appropriate vocabulary
- Become responsible, competent and confident users of information and communication technology
- Understand that computing is an essential skill for life, enabling pupils the freedom to participate in a rapidly changing world

## EARLY YEARS FOUNDATION STAGE:

In the EYFS (Early Years Foundation Stage) children are given the opportunity to explore computing relating to the strand Understanding of the world.
Children are given the opportunity to use technologies to solve problems and produce creative outcomes, such as the use of digital devices, moving a Bee Bot.
Other technological experiences are used to support learning through role play or exploration, both functioning/ model devices, or a variety of electronic toys as part of continuous provision.
In EYFS there are opportunities for exploration by playing and discovering a devices function that allows a foundation of understanding of Computing.

## KEY STAGE ONE:

In Key Stage 1, children develop their skills further through increasing their knowledge and understanding of computing through three different areas. Digital literacy, information technology and computer science. They will build upon understanding how devices function to recognising there is a common use of technologies beyond school. They will develop an understanding of how to use technology safely, identifying where to go for help and support when they have concerns.
In Key Stage 1, children will be building upon our knowledge of using digital devices such as Bee bots in EYFS to understanding what algorithms are and how they are implemented as programs.
Through their understanding the children will be able to make predictions on the behaviours of simple programs.

## KEY STAGE TWO:

In Key Stage 2, children develop their Computing abilities further by increasing their knowledge, skills and understanding of the three areas, Digital Literacy, Computer Science and Information Technology.

Children's experiences at this stage enable them to understand the importance of technology in an ever-changing wider world.
Children learn to improve their Digital Literacy through understanding the opportunities networks online offer for communication and collaboration, whilst being aware of using technology safely and respectfully. Being able to recognise and report any concerns allows children a better understanding in evaluating digital content.
In Key Stage 2, children will build upon their information technology skills to not only use technology purposefully but to use and combine a variety of software. This is accessed through different digital devices to achieve goals such as; collecting, analysing, evaluating, and presenting data and information whilst using search technologies effectively.
Their logical reasoning skills are further developed by now using their logical reasoning to detect errors and correct them within algorithms and programs.
The children will also work from given goals to design, write, debug programs whilst solving problems.

## ROLES & RESPONSIBILITES:

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| **THE GOVERNING BODY** | ***The governing board will monitor the effectiveness of this policy and hold the headteacher to account for its implementation.***<br>***The governing board will also ensure that:***<br>o A robust framework is in place for setting curriculum priorities and aspirational targets<br>o Enough teaching time is provided for pupils to cover the National Curriculum and other statutory requirements<br>o Proper provision is made for pupils with different abilities and needs, including children with special educational needs (SEN) |
| **THE HEADTEACHER** | ***The headteacher is responsible for ensuring that this policy is adhered to, and that:***<br>o All required elements of the curriculum, and those subjects which the school chooses to offer, have aims and objectives which reflect the aims of the school and indicate how the needs of individual pupils will be met<br>o The amount of time provided for teaching the required elements of the curriculum is adequate and is reviewed by the governing board<br>o Where appropriate, the individual needs of some pupils are met by permanent or temporary disapplication from all or part of the National Curriculum<br>o They manage requests to withdraw children from curriculum subjects, where appropriate |

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| | ○ The school's procedures for assessment meet all legal requirements<br>○ The governing board is fully involved in decision-making processes that relate to the breadth and balance of the curriculum<br>○ Is the E-safety lead and must be aware of any incidents which should be recorded with and dealt with in line with the E- safety policy |
| **CURRICULUM SUBJECT LEADER** | ***The curriculum leader is responsible for:***<br>○ Oversee the continuity of the subject and the progression of teaching and learning within plans.<br>○ They will monitor the quality of teaching and the standard of work produced.<br>○ Evidence will be kept from year to year.<br>○ The curriculum subject leader will offer support to colleagues and share their expertise and experience.<br>○ They will encourage staff and pupils to be creative and advise teachers on teaching methods they may wish to explore.<br>○ Support staff in catering for the needs of all the children in their class, ensuring all children access the curriculum at an appropriate level.<br>○ Ensuring proper provision is in place for pupils with different abilities and needs, including children with SEN<br>○ Reporting to the governing board and ensuring it is advised on any changes to the Computing curriculum and making them aware of what is happening in school. |
| **CLASS TEACHERS** | ***Other staff will ensure that the school curriculum is implemented in accordance with this policy.***<br>○ Ensure they are aware of the previous knowledge of the children and build on this within lessons.<br>○ Ensure all of our intentions are being taught.<br>○ Staff to communicate with 'Ed- it' about any maintenance and support needed for computing within school. |

## CURRICULUM PLANNING & ORGANISATION (IMPLEMENTATION)

Computing is delivered and experienced in a safe and supportive environment. The broad and balanced curriculum provides stimulating, enjoyable and challenging learning experiences. Encouragement and guidance is given to children of all abilities, in order for them to build on previously acquired skills and be motivated to develop further as individuals.

Our Computing curriculum develops skills throughout the year groups, with each year building upon the three different areas within Computing; Digital Literacy, Computer Science and Information Technology. We cover all aspects of the computer programme through the use of Rising Stars Scheme. This allows us to deliver exciting and inspiring topics whilst embedding e-safety throughout everything we teach.
Computing is closely linked with many other subjects, using technologies to facilitate and support learning where possible, for example; IDL for reading and spelling to support English and Maths, Read into Writing through our Cracking Comprehension programme, and Jolly Phonics interactive programme which is accessed through teachers' interactive boards.

## CYCLE A

| | Autumn | Spring | Summer |
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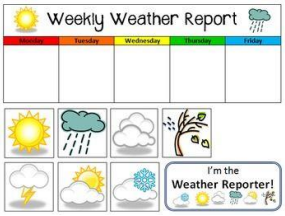
| **EYFS** | **We are weather reporters**<br><br>To record changes in the weather using monitoring resources; sound monitors, thermometers etc. Investigating changes in temperature, materials and sound. Linking to Investigation question.<br><br>  | **We are good listeners**<br><br>Explore ways of listening to sounds using simple programs and devices. Linking to Spring 1 animal sounds.<br><br>  | **We are photographers**<br>Interact and explore their environment with a range of multimedia equipment; digital cameras, videos cameras and microscopes. Linking to summer 1 minibeasts.<br><br>  |
| **KS1** | **We are researchers**<br><br>Research using mind mapping about The Great Fire of London.<br><br>  | **We are Zoologists**<br><br>Collecting data about bugs. Links to Geography and Science.<br><br>  | **We are photographers**<br><br>Taking better photo's Go on nature walks and review photos online. Linking to plants and birds Science topic.<br><br>  |
| **LKS2** | **We are Co- authors**<br><br>Using WIKI Link to History and The Gunpowder Plot. | **We are musicians**<br><br>Producing digital music. Link to Science, sound and Music, Little Mix. | **We are software developers**<br><br>Developing a simple educational game. Link |

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| |  |  | to DT and History, Ancient Egypt.<br>  |
| **UKS2** | **We are travel Writers**<br>Using media and mapping to document a trip. Link with Geography topic travelling from North to South America.<br>  | **We are adventure gamers**<br>Making a text- based adventure game. Link to Science topic CSI investigating.<br>  | **We are advertisers**<br>Creating a short television advert. Link to Materials and structures. They could create an advert for their house.<br>  |

## CYCLE B

| | Autumn | Spring | Summer |
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| **EYFS** | **We are Creative**<br>Expressive arts and design. The children safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form, and function.<br>  | **We can drive**<br>To create a road role play using props, digital images and devices. Children to manage space successfully when playing games with other children.<br>  | **We have Confidence**<br>The children to have the confidence to speak in familiar groups using microphones and video recorders.<br>  |
| **KS1** | **We are treasure hunters**<br>The children will program a toy to move around a map to find buried treasure. They will start by thinking of algorithms for their routes, then input these as stored programs for the robot. They predict how the robot | **We are Collectors**<br>The pupils will use web search engines to collect pictures of different types of animals and then explore ways in which those pictures can be organised. | **We are celebrating**<br>The pupils will have the opportunity to create a digital greetings card, which could be used for areligious festival such as Diwali or Christmas, pupils' birthdays, or simply to say thank you or good luck. |

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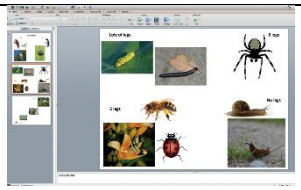
| | will move and will debug their programs.<br>  |  |  |
| **LKS2** | **We are Vloggers**<br>The pupils will teach something based on Stone Age Britain to the others. They research this using web-based sources, plan a presentation, source and create visual content and record a spoken commentary.<br>  | **We are opinion pollsters**<br>In this unit, the children create their own opinion poll, seek responses, and then analyse the results. This could be based on their favourite sport in PE so far or dinner.<br>  | **We are programmers**<br>In this unit, the children create an animated cartoon using characters they design. They use a paint tool to create characters and backgrounds. These could be based on their story in English. They then create an animation by translating a storyboard into a series of scripted instructions (program) for graphic objects.<br>  |
| **UKS2** | **We are app planners**<br>These units form a sequence in which the children will follow. They have to come up with an idea to create their own app. They must think of an issue that their app could solve and create a pitch to solve it.<br>  | **We are project managers**<br>This is the second in a sequence of units in which pupils work collaboratively to develop a smartphone or tablet app. Pupils apply computational thinking to the task of managing a complex project.<br>  | **We are market researchers**<br>The pupils conduct a survey to research their market for their intended app. They will complete and show to others in the class.<br>  |

## RESOURCES:

Each class has access to a range of technologies such as interactive whiteboards, voice recorders, programmable toys etc. Laptops and iPads are timetabled to allow everyone the opportunity to use them to support learning. Each classroom is equipped with an interactive board which can be accessed and used by both adults and children to support teaching and learning.

## ASSESSMENT:

At the beginning of a theme teachers should activate children's prior knowledge drawing upon any information they can recall. They should record what children already know and any questions children would like to find out. This prior knowledge should be used as a baseline for planning lessons.
Assessment and feedback to pupils is usually carried out by observation and oral feedback during lessons.
All children are required to show their progression through discussion, completion of work in photographs and observations recorded in floor books, as well as pupil's files on the school sever. Progression and achievement is tracked against learning objectives.
At the end of each year teachers should make a judgement of each child's attainment and record this on iTrack primary.

## INCLUSION:

Teachers set high expectations for all pupils. They will use appropriate assessment to set ambitious targets and plan challenging work for all groups, including:

- More able pupils
- Pupils with low prior attainment
- Pupils from disadvantaged backgrounds
- Pupils with SEN
- Pupils with English as an additional language (EAL)

Teachers will plan lessons so that pupils with SEN and/or disabilities can study every National Curriculum subject, wherever possible, and ensure that there are no barriers to every pupil achieving.

Teachers will also take account of the needs of pupils whose first language is not English. Lessons will be planned so that teaching opportunities help pupils to develop their English, and to support pupils to take part in all subjects.

Further information can be found in our statement of equality information and objectives, and in our SEN policy and information report.

## MONITORING & TRAINING:

Senior Leaders and Curriculum leaders monitor the way their subject is taught throughout the school by:

- Learning walks
- Book scrutiny
- Child discussions
- Teacher discussions
- CPD for the Curriculum leader as required (Ofsted - Sandylands Hub)
- Staff Meeting Focus on Computing and the curriculum
- INSET training on using new programs

## LINKS WITH OTHER POLICIES:

This policy links to the following policies and procedures:

- ESafety policy

- Anti-Bullying policy
- EYFS policy
- Effective Marking & Feedback policy
- SEN policy and information report
- Equality information and objectives
- Mobile phone policy

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| **Policy Date:** | 1st July 2021 |
| **Policy Review Date:** | September 2022 |
| **Signed & Dated:** | **Chair of Governors** |
| **Signed & Dated:** | **Headteacher** **Curriculum Leader** |