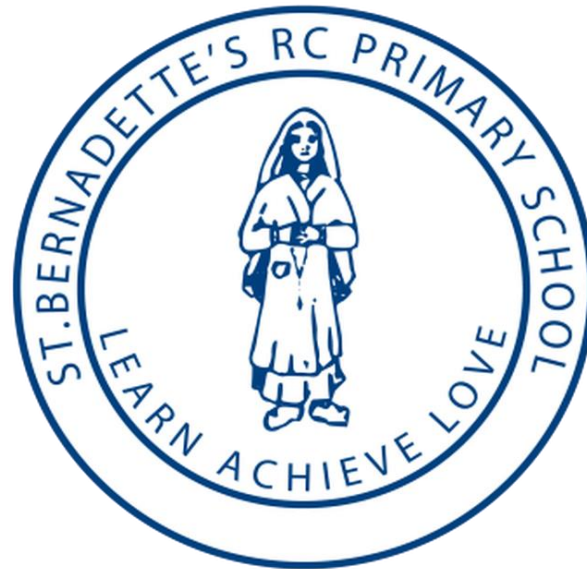


# ST BERNADETTE'S RC PRIMARY SCHOOL



## COMPUTING CURRICULUM





# St Bernadette's RC Primary School

## Computing Curriculum



### Intent

At St. Bernadette's, our Computing curriculum incorporates coding, robotics, computer hardware and research projects to stimulate and challenge pupils whilst fulfilling the criteria of the Computing National Curriculum for Key Stages 1 and 2. Pupils learn the value of a multi-disciplinary approach, as they develop their logic and creativity through tasks that require them to draw on their mathematical, scientific, and design and technology skills. Each child creates programs, systems and a range of content as evidence of their progress and attainment. Pupils work with a partner on iPads and learn how to navigate iOS, IT skills and how to save and organise work in a logical manner. It also involves many aspects of the PHSE National Curriculum; in relation to managing online behaviour, relationships and internet safety, pupils are equipped with the skills necessary to thrive in an increasingly digital society and to keep themselves safe in their online interactions.

Kapow Primary's Computing scheme aims to instill a sense of enjoyment around using technology and to develop pupil's appreciation of its capabilities and the opportunities technology offers to, create, manage, organise, and collaborate.

Tinkering with software and programs forms a part of the ethos of the scheme as we want to develop pupils' confidence when encountering new technology, which is a vital skill in the ever evolving and changing landscape of technology. Through our curriculum, we intend for pupils not only to be digitally competent and have a range of transferable skills at a suitable level for the future workplace, but also to be responsible online citizens.



## COMPUTING CURRICULUM YEAR A

### NURSERY

#### AUTUMN

##### Computing through Continuous Provision

- Using a range of resources that will enable to them to develop and further explore the foundations of computing.

#### SPRING

##### Communication and Language

- Understand how to listen carefully and why listening is important.
- Describe events in some detail.
- Use talk to help work our problems and organise thinking and activities, and to explain how things work and why they might happen.

##### Personal, Social and Emotional Development

- ELG: Self-Regulation > Give focused attention to what the teacher says, responding appropriately even when engaged in activity, and show an ability to follow instructions involving several ideas or actions.
- ELG: Managing Self> Be confident to try new activities and show independence, resilience and perseverance in the face of challenge.
- ELG: Building Relationships> Work and play cooperatively and take turns with others.

##### Physical Development

- Know and talk about the different factors that support their overall health and wellbeing.
- Further develop the skills they need to manage the school day successfully.

#### SUMMER

##### Online Safety

- Know who my trusted adult is.
- Identify situations in which I may need to ask my trusted adult to help.
- Understand the appropriate app to use for viewing videos online.
- Know how to ask for help if a video frightens me online.
- Demonstrate how to ask for help if something frightens me online



## COMPUTING CURRICULUM YEAR A

### RECEPTION

#### AUTUMN

##### Physical Development

- Develop their small motor skills so that they can use a range of tools competently, safely and confidently.

##### Online Safety

- Knows how to identify situations in which they may need to ask an adult to help.
- Knows the appropriate app to use for viewing videos online.
- Knows how to ask for help/what to do if a video frightens them online.
- Understands what a pop-up is.

#### SPRING

##### Communication and Language

- Learn new vocabulary.
- Use new vocabulary throughout the day.
- Ask questions to find out more and to check they understand what has been said to them.
- Articulate their thoughts and ideas in well-formed sentences.
- Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen.

##### Physical Development

- Develop their small motor skills so that they can use a range of tools competently, safely and confidently.
- Confidently and safely use a range of large and small apparatus indoors and outside, alone and in a group

#### SUMMER

##### Communication and Language

- Understand how to listen carefully and why listening is important.
- Describe events in some detail.
- Use talk to help work our problems and organise thinking and activities, and to explain how things work and why they might happen.

##### Personal, Social and Emotional Development

- ELG: Self-Regulation > Give focused attention to what the teacher says, responding appropriately even when engaged in activity, and show an ability to follow instructions involving several ideas or actions.
- ELG: Managing Self> Be confident to try new activities and show independence, resilience and perseverance in the face of challenge.
- ELG: Building Relationships> Work and play cooperatively and take turns with others.

##### Physical Development

- Know and talk about the different factors that support their overall health and wellbeing.
- Further develop the skills they need to manage the school day successfully.



## COMPUTING CURRICULUM YEAR A

### KEY STAGE 1

#### AUTUMN

##### Information Technology

- 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

##### 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

##### Online Safety

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

#### SPRING

##### Digital Literacy

- 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

##### Online Safety

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

#### SUMMER

##### 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

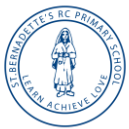
##### Information Technology

- 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



*St Bernadette's RC Primary School*  
*Computing Curriculum*





## COMPUTING CURRICULUM YEAR A

### LOWER KEY STAGE 2

#### AUTUMN

##### Digital Literacy

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

##### Information Technology

- 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

##### 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

#### SPRING

##### 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
- 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

##### Online Safety

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

#### SUMMER

##### 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

##### Online Safety

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



## COMPUTING CURRICULUM YEAR A

### UPPER KEY STAGE 2

#### AUTUMN

##### Computer Science

- 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

##### Information Technology

- Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content

##### Online Safety

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

#### SPRING

##### Digital Literacy

- 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

##### Online Safety

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

#### SUMMER

##### Digital Literacy

- 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

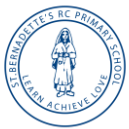
##### Information Technology

- Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content

##### Online Safety

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





## COMPUTING CURRICULUM YEAR B

### NURSERY

#### AUTUMN

##### Computing through Continuous Provision

- Using a range of resources that will enable to them to develop and further explore the foundations of computing.
- 

#### SPRING

##### Communication and Language

- Understand how to listen carefully and why listening is important.
- Describe events in some detail.
- Use talk to help work our problems and organise thinking and activities, and to explain how things work and why they might happen.

##### Personal, Social and Emotional Development

- ELG: Self-Regulation > Give focused attention to what the teacher says, responding appropriately even when engaged in activity, and show an ability to follow instructions involving several ideas or actions.
- ELG: Managing Self> Be confident to try new activities and show independence, resilience and perseverance in the face of challenge.
- ELG: Building Relationships> Work and play cooperatively and take turns with others.

##### Physical Development

- Know and talk about the different factors that support their overall health and wellbeing.
- Further develop the skills they need to manage the school day successfully.

#### SUMMER

##### Online Safety

- Know who my trusted adult is.
- Identify situations in which I may need to ask my trusted adult to help.
- Understand the appropriate app to use for viewing videos online.
- Know how to ask for help if a video frightens me online.
- Demonstrate how to ask for help if something frightens me online
-



## COMPUTING CURRICULUM YEAR B

### RECEPTION

#### AUTUMN

##### Physical Development

- Develop their small motor skills so that they can use a range of tools competently, safely and confidently.

##### Online Safety

- Knows how to identify situations in which they may need to ask an adult to help.
- Knows the appropriate app to use for viewing videos online.
- Knows how to ask for help/what to do if a video frightens them online.  
Understands what a pop-up is.

#### SPRING

##### Communication and Language

- Learn new vocabulary.
- Use new vocabulary throughout the day.
- Ask questions to find out more and to check they understand what has been said to them.
- Articulate their thoughts and ideas in well-formed sentences.
- Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen.

##### Physical Development

- Develop their small motor skills so that they can use a range of tools competently, safely and confidently.
- Confidently and safely use a range of large and small apparatus indoors and outside, alone and in a group
- 

#### SUMMER

##### Communication and Language

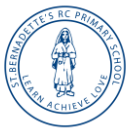
- Understand how to listen carefully and why listening is important.
- Describe events in some detail.
- Use talk to help work our problems and organise thinking and activities, and to explain how things work and why they might happen.

##### Personal, Social and Emotional Development

- ELG: Self-Regulation > Give focused attention to what the teacher says, responding appropriately even when engaged in activity, and show an ability to follow instructions involving several ideas or actions.
- ELG: Managing Self> Be confident to try new activities and show independence, resilience and perseverance in the face of challenge.
- ELG: Building Relationships> Work and play cooperatively and take turns with others.

##### Physical Development

- Know and talk about the different factors that support their overall health and wellbeing.
- Further develop the skills they need to manage the school day successfully.



## COMPUTING CURRICULUM YEAR B

### KEY STAGE 1

#### AUTUMN

##### Information Technology

- Identify input and output devices
- Recognise a traditional computer, understanding its function and role within the classroom/home
- Successfully photograph an example of a computer in the classroom, uploading it to a photo editing app
- Use voiceover to create an interactive image using the editing app
- Consider wider social aspects of technology, connecting computers with the environment  
Produce a poster highlighting a more sustainable use of technology

##### 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

#### SPRING

##### Information Technology

- Identify input and output devices
- Recognise a traditional computer, understanding its function and role within the classroom/home
- Successfully photograph an example of a computer in the classroom, uploading it to a photo editing app
- Use voiceover to create an interactive image using the editing app
- Consider wider social aspects of technology, connecting computers with the environment
- Produce a poster highlighting a more sustainable use of technology

##### Online Safety

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

#### SUMMER

##### Digital Literacy

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

##### Online Safety

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



## COMPUTING CURRICULUM YEAR B

### LOWER KEY STAGE 2

#### AUTUMN

##### Digital Literacy

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

##### Information Technology

- 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

##### 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

#### SPRING

##### 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
- 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
- acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

##### Online Safety

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

#### SUMMER

##### 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

##### Online Safety

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



## COMPUTING CURRICULUM YEAR B

### UPPER KEY STAGE 2

#### AUTUMN

##### Computer Science

- 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

##### Information Technology

- Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content

##### Online Safety

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

#### SPRING

##### Information Technology

- Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content

##### Computer Science

- 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

- 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

#### SUMMER

##### Computer Science

- 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

##### Information Technology

- Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content

##### Online Safety

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