St Ursula's Catholic Primary School

Computing National Curriculum Targets 2020-21

Nursery	National Curriculum targets
Autumn Term 1	F1.1 Seeks to acquire basic skills in turning on and operating some ICT equipment. F1.2 Operates mechanical toys, e.g. turns the knob on a wind-up toy or pulls back on a friction car.
Autumn Term 2	
Spring Term 1	
Spring Term 2	
Summer Term 1	
Summer Term 2	

Reception	National Curriculum targets
Autumn Term 1	1. Knows how to operate simple equipment, e.g. turns on CD player and uses remote control.
Autumn Term 2	2. Shows an interest in technological toys with knobs or pulleys, or real objects such as cameras or mobile phones.
Spring Term 1	3. Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images.
Spring Term 2	4. Knows that information can be retrieved from computers
Summer Term 1	1. Completes a simple program on a computer.
Summer Term 2	2. Uses ICT hardware to interact with age-appropriate computer software.

Year 1	National Curriculum targets
Autumn Term 1	Typing skills (use technology purposefully to create, organise, store, manipulate and retrieve digital content)
Autumn Term 2	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.
Spring Term 1	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.
Spring Term 2	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.
Summer Term 1	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. 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.
Summer Term 2	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. 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.

Year 2	National Curriculum targets
Autumn Term 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.
Autumn Term 2	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. Use logical reasoning to predict the behaviour of simple programs. Recognise common uses of information technology beyond school. Use technology safely and respectfully, keeping personal information private.
Spring Term 1	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.
Spring Term 2	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.
Summer Term 1	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.
Summer Term 2	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.

Year 3	National Curriculum targets
Autumn Term 1	Use technology safely Know a range of ways to report concerns and unacceptable behaviour Use technology respectfully and responsibly Understand computer networks including the internet; Understand computer networks how they can provide multiple services, such as the World Wide Web Use search technologies effectively; Appreciate how [search] results are selected and ranked
Autumn Term 2	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. Understand computer networks, including the internet; how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.
Spring Term 1	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; Use sequence, selection, and repetition in programs Use sequence, selection, and repetition in programs Solve problems by decomposing them into smaller parts.
Spring Term 2	Use technology safely, respectfully and responsibly; Select, use and combine a variety of software (including internet services) on a range of digital devices Be discerning in evaluating digital content Select, use and combine a variety of software Accomplish given goals including collecting, analysing, evaluating and presenting … information
Summer Term 1	Designs simple algorithms using loops, and selection i.e. if statements. (AL) Uses logical reasoning to predict outcomes. (AL) Detects and corrects errors i.e. debugging, in algorithms. (AL)
Summer Term 2	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; Uses arithmetic operators, if statements, and loops, within programs. (AL) Detects and corrects simple semantic errors i.e. debugging, in programs. (AL) Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs (AL)

Year 4	National Curriculum targets
Autumn Term 1	Use technology safely; Know a range of ways to report concerns and unacceptable behaviour; Use technology respectfully and responsibly; Understand computer networks including the internet; how they can provide multiple services, such as the World Wide Web; Understand the opportunities [networks] offer for communication and collaboration; Use and combine a variety of software (including internet services) to accomplish given goals, including presenting information;
Autumn Term 2	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content in the context of using search engines accurately; Use technology for communication and collaboration; Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content in the context of using search engines accurately;
Spring Term 1	Designs solutions (algorithms) that use repetition and two-way selection i.e. if, then and else. (AL); Uses logical reasoning to predict outputs, showing an awareness of inputs. (AL) Use sequence, selection, and repetition in programs; work with variables and various forms of input and output Uses diagrams to express solutions. (AB);
Spring Term 2	Design, write and debug programs that accomplish goals, including controlling or simulating physical systems, solve problems by decomposing them into smaller parts; Use logical reasoning to explain how some simple algorithms and to detect and correct errors in algorithms and programs; Use sequence, selection, and repetition in programs; work with variables and various forms of input and output;
Summer Term 1	Select, use and combine a variety of software on a range of digital devices to create content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
Summer Term 2	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; Use sequence, selection, and repetition in programs; Solve problems by decomposing them into smaller parts;

Year 5	National Curriculum targets
Autumn Term 1	Use technology safely; Know a range of ways to report concerns and unacceptable behaviour; Use technology respectfully and responsibly; Designs solutions (algorithms) that use repetition and two-way selection i.e. if, then and else; Uses logical reasoning to predict outputs, showing an awareness of inputs; Designs solutions by decomposing a problem and creates a sub-solution for each of these parts.
Autumn Term 2	Design, write and debug programs that accomplish specific goals including controlling or simulating physical systems, solve problems by decomposing them into smaller parts Creates programs that implement algorithms to achieve given goals; Use sequence, selection and repetition in programs; Use logical reasoning to explain how some simple algorithms work;
Spring Term 1	Select, use and combine a variety of software to design and create a range of programs, systems and content that accomplish given goals; Use a variety of software on a range of digital devices to design and create a range of content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information; Select, use and combine a variety of software on a range of digital devices to design and create a range of content that accomplish given goals, including presenting information.
Spring Term 2	Understand computer networks including the internet and how they can provide multiple services, such as the World Wide Web; Use search engines effectively; Use logical reasoning to explain how some simple algorithms and to detect and correct errors in algorithms and programs; Use sequence, selection, and repetition in programs; work with variables and various forms of input and output;
Summer Term 1	Select, use and combine a variety of software on a range of digital devices to create content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
Summer Term 2	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact;

Year 6	National Curriculum targets
Autumn Term 1	Use technology safely; Know a range of ways to report concerns and unacceptable behaviour; Use technology respectfully and responsibly; Use sequence, selection, and repetition in programs; work with variables and various forms of input and output; generate appropriate inputs and predicted outputs to test programs; Work with variables and various forms of input and output; Use logical reasoning to explain how a simple algorithm works and to detect and correct errors in algorithms and programs;
Autumn Term 2	Use logical reasoning to explain how a simple algorithm works and to detect and correct errors in algorithms and programs; Solve problems by decomposing them into smaller parts; Use logical reasoning to explain how some simple algorithms work Creates programs that implement algorithms to achieve given goals.
Spring Term 1	Use technology effectively; Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; 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 … evaluating and presenting … information;
Spring Term 2	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact;
Summer Term 1	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;
Summer Term 2	Identifying a need and developing ideas. Use materials and components as well as modular construction kits to design and make high-quality working prototypes; Working as individuals and in teams. Use appropriate testing to identify improvements. Assembling and disassembling a range of familiar products and testing how well they meet the intended purpose; 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;