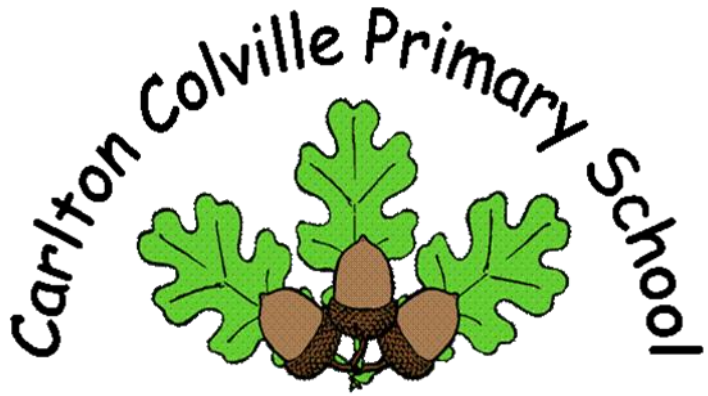

Computing

Assessment Document

Computing - Milestone 1

Learning Objective		Key Indicators	Basic	Advancing	Deep
To code (using Scratch)	Motion	Control motion by specifying the number of steps to travel, direction and turn.	With support from a teacher, basic movement is controlled.	Generally, steps and direction of turn are understood.	Precise movement is achieved using basic instructions.
	Looks	Add text strings, show and hide objects, and change the features of an object.	With the support of a teacher, the basic features of an object are altered.	There is some experimentation with variables to change the basic features of an object.	There is a good understanding of how to change the basic features of an object.
	Sound	Select sounds and control when they are heard, their duration and volume.	With the support of structured activities, sounds are controlled.	There is some experimentation with controlling sound.	There is a good understanding of how to control sound.
	Draw	Control when drawings appear and set the pen colour, size and shape.	With the support of structured activities, drawings are created.	There is some experimentation with controlling draw tools.	There is a good understanding of how to control draw tools.
	Events	Specify user inputs (such as clicks) to control events.	With the support of structured activities, user inputs are specified.	There is some experimentation with user inputs to control events.	There is a good understanding of how to control events by specifying user inputs.
	Control	Specify the nature of events (such as a single event or a loop).	With the support of a teacher, the nature of events is specified.	There is some experimentation with specifying the nature of events.	There is a good understanding of how and when to specify the nature of events.
	Sensing	Create conditions for actions by waiting for a user input (such as responses to questions like: What is your name?).	With the support of a teacher, user responses are explored.	There is some experimentation with the nature of user responses and the required user inputs.	There is a good understanding of how to seek a user response in a range of situations.
	Variables and lists	From Year 3 onwards.	Not applicable	Not applicable	Not applicable
	Operators	From Year 3 onwards.	Not applicable	Not applicable	Not applicable

Computing - Milestone 1

Learning Objective	Key Indicators	Basic	Advancing	Deep
To communicate	Understand online risks and the age rules for sites.	Online activity is closely monitored by a teacher.	There is some awareness of some online risks.	There is a growing awareness of some of the rules in place to minimise online risks.
	Use a range of applications and devices in order to communicate ideas, work and messages.	With guidance, a range of devices and apps are used to communicate with others.	There is a growing awareness of a range of devices and apps that are used to communicate with others.	There is a good understanding of a wide range of devices and apps that can be used to communicate with others.
To collect	Use simple databases to record information in areas across the curriculum.	With the support of a teacher, simple databases are used.	There is a growing awareness of how databases are used.	Many good examples of using databases across the curriculum are developing.
To connect	Understand online risks and the age rules for sites.	With the support of a teacher, some of the risks posed by online sites are explored.	There is a growing awareness that sites have age restrictions and some of the reasons for this are understood.	Age rules for sites are understood and good examples of some online risks are given.

Computing - Milestone 2

Learning Objective		Key Indicators	Basic	Advancing	Deep
To code (using Scratch)	Motion	Use specified screen coordinates to control movement.	There is some awareness that movement may be controlled around specified screen coordinates.	There is some experimentation with controlling movement around specified screen coordinates.	There is a good understanding that screen coordinates may be used to control movement.
	Looks	Set the appearance of objects and create sequences of changes.	There is some awareness of how to alter the appearance of objects and create sequences of changes.	There is some experimentation with setting the appearance of objects and sequences of changes.	There is a good understanding of how to set the appearance of objects and in creating sequences of changes.
	Sound	Create and edit sounds. Control when they are heard, their volume, duration and rests.	There is some awareness of how to create and edit sounds.	There is some experimentation with the creation and editing of sounds.	There is a good understanding of how to create and edit sounds.
	Draw	Control the shade of pens.	There is some awareness that the shape of tools may be altered.	There is some experimentation with altering the shape of tools.	There is a good understanding of how to alter the shape of tools to create different effects.
	Events	Specify conditions to trigger events.	There is some awareness of triggers for events.	There is some experimentation with various triggers for events.	There is a good understanding of how to specify triggers for events.
	Control	Use IF-THEN conditions to control events or objects.	There is some awareness that IF-THEN conditions may be set.	There is some experimentation with IF-THEN conditions.	There is a good understanding of how to use IF-THEN conditions.
	Sensing	Create conditions for actions by sensing proximity or by waiting for a user input (such as proximity to a specified colour or a line or responses to questions).	There is some awareness that actions may be controlled by proximity or user input.	There is some experimentation with sensing proximity or user input to trigger actions.	There is a good understanding that proximity and user inputs may be used to trigger actions.

Computing - Milestone 2

Learning Objective		Key Indicators	Basic	Advancing	Deep
To code (using Scratch)	Variables and lists	Use variables to store a value.	There is some awareness of the term 'variable' and that variables may be set to store a value.	There is some experimentation with using variables to store a value.	The term variable is understood, and used to store a value.
		Use the functions define, set, change, show and hide to control the variables.	There is some awareness of the use of functions to control variables.	There is some experimentation with controlling variables.	There is a good understanding of how and when to use functions to control variables.
	Operators	Use the Reporter operators () +() () - () () / () to perform calculations.	Some calculations are performed using basic reporter operations.	Calculations using basic reporter operations are generally accurate.	Accurate and well applied calculations are performed using basic reporter operations.
To communicate		Use some of the advanced features of applications and devices in order to communicate ideas, work or messages professionally.	There are some attempts to create appropriate formats for communicating ideas.	There is some interesting experimentation with formats and styles for communicating ideas.	There is a good understanding that ideas need to be presented in interesting and easy-to-understand formats.
To collect		Devise and construct databases using applications designed for this purpose in areas across the curriculum.	There are some attempts to devise databases.	There are some good examples of database creations across the curriculum.	There are many good examples of well-planned databases that have been created across the curriculum.

Computing - Milestone 2

Learning Objective	Key Indicators	Basic	Advancing	Deep
To connect	Give examples of the risks posed by online communications.	Some examples of online risks are offered, when questioned.	Whilst online, there is a growing awareness of how to keep safe.	Many good examples of how to keep safe whilst online are provided.
	Understand the term 'copyright'.	There is some awareness of the term 'copyright' and what it means.	The term 'copyright' is generally understood.	The term 'copyright' is understood and the understanding of its meaning applied to a number of contexts.
	Understand that comments made online that are hurtful or offensive are the same as bullying.	There is some awareness that hurt and offence may be caused online.	In discussion, some good examples of how to behave respectfully towards others online are provided.	There is a good understanding of how to behave respectfully towards others online.
	Understand how online services work.	There is some awareness of how online services work.	There is a growing understanding of how familiar online services work.	Many good examples of how online services work are provided.

Computing - Milestone 3

Learning Objective		Key Indicators	Basic	Advancing	Deep
To code (using Scratch)	Motion	Set IF conditions for movements. Specify types of rotation giving the number of degrees.	There is some experimentation with conditions and degrees of movement.	There are some good examples of the use of conditions and degrees of movement.	There are many well-executed examples of the use of conditions and degrees of movement.
	Looks	Change the position of objects between screen layers (send to back, bring to front).	There is some experimentation with screen layers.	There are some good examples of effective manipulation of objects between screen layers.	Screen layers are used effectively to control the position and visibility of objects.
	Sound	Upload sounds from a file and edit them. Add effects such as fade in and out and control their implementation.	There is some experimentation with importing and editing sounds.	There are some good examples of importing and editing sounds.	There is a very good understanding of the process of sound import and the subsequent editing of the sound to create interesting effects.
	Draw	Combine the use of pens with movement to create interesting effects.	There is some experimentation with combining tools with movement.	Some interesting effects are gained through combining tools with movement.	Some excellent effects are gained through well-planned combinations of tools and movement.
	Events	Set events to control other events by 'broadcasting' information as a trigger.	There is some awareness of how to broadcast events.	There are some good examples of broadcast events.	There are many very good examples of choosing, using and explaining broadcast events.
	Control	Use IF-THEN-ELSE conditions to control events.	There is some awareness of the use of IF-THEN-ELSE conditions.	There are some good examples of the use of IF-THEN-ELSE conditions to control events or objects.	There is a thorough understanding of the control conditions IF-THEN-ELSE.
	Sensing	Use a range of sensing tools (including proximity, user inputs, loudness and mouse position) to control events or actions.	There is some awareness that there are a range of sensing tools that may be used to control events or actions.	There are some good examples of using a range of sensing tools to control events or actions.	There are many very good well-chosen examples of, with explanations for, the use of sensing tools to control events or actions.

Computing - Milestone 3

Learning Objective		Key Indicators	Basic	Advancing	Deep
To code (using Scratch)	Variables and lists	Use lists to create a set of variables.	There is some awareness of how to create a set of variables.	There are some good examples of sets of variables in a range of situations.	There is a thorough understanding of how to create and use sets of variables.
	Operators	Use the Boolean operators () < () () = () () > () ()and() ()or() Not() to define conditions.	There is some understanding of the use of Boolean operators to define conditions.	There are some good examples of the use of Boolean operators to define conditions.	There is a thorough understanding of how and when to use Boolean operators.
		Use the Reporter operators () + () () - () () * () () / () to perform calculations. Pick Random () to () Join () () Letter () of () Length of () () Mod () (this reports the remainder after a division calculation). Round () () of ().	There is some understanding of the use of operators to perform calculations and to refine the reporting of results.	There are some good examples of the use of operators to perform calculations and to refine the reporting of results.	There is a thorough understanding of the use of operators to perform calculations and to refine the reporting of results.
To communicate		Choose the most suitable applications and devices for the purposes of communication.	Some choices are made in selecting and using apps and devices for communicating ideas.	Good choices are made in selecting and using apps and devices for communicating ideas.	Excellent choices are made in selecting and using apps and devices for communicating ideas.
		Use many of the advanced features in order to create high-quality, professional or efficient communications.	Some high-quality work is produced.	There are many examples of high-quality work.	There are widespread and very good examples of high-quality work.

Computing - Milestone 3

Learning Objective	Key Indicators	Basic	Advancing	Deep
To collect	Select appropriate applications to devise, construct and manipulate data and present it in an effective and professional manner.	There is some awareness of how to devise, construct and manipulate data.	The manipulation of data is efficient and its presentation is becoming professional.	The manipulation of data is very well thought out and reasoned well. There is a high degree of professional presentation of data.
To connect	Give examples of the risks of online communities and demonstrate knowledge of how to minimise risk and report problems.	Some examples of the risks of online communities and the measures to take to minimise risks are given.	There is a good understanding of the risks of online communities and the measures to take to minimise risks.	There is a thorough understanding of the risks of online communities and the measures to take to minimise risks.
	Understand and demonstrate knowledge that it is illegal to download copyrighted material, including music or games, without express written permission from the copyright holder.	There is an awareness that copyright theft is illegal.	There is a good understanding that copyright theft is illegal.	There is a thorough understanding that copyright theft is illegal.
	Understand the effect of the online comments and show responsibility and sensitivity when online.	Online comments are responsible and sensitive.	There is a good awareness of the effect of online comments. Comments made online are responsible and sensitive.	Explanations show an in-depth understanding of the effect of irresponsible online comments. Comments made are responsible and sensitive.
	Understand how simple networks are set up and used.	There is an awareness of how simple networks are set up and used.	There is a good understanding of how simple networks are set up and used.	There is a thorough understanding of how networks are set up and used.