

## Coding

I can use a sketch or storyboard to represent a program design and algorithm.

I can use my design to create a program.

I can design and write a program that simulates a physical system by using decomposition and abstraction.

I can explain what a variable is in programming.

I can set/change variable values appropriately.

I know some ways that text variables can be used in coding.

I can create a game which has a timer and score pad.

I can use variables to control the objects in the game.

I can combine the use of variables, If/else statements and Repeats to achieve the desired effect in code.

I can read code so that it can be adapted, personalised and improved.

I can explore the launch command and use buttons within a program that launch other programs or open websites.

I can create a program to inform others.

## Concept Maps

I understand the need for visual representation when generating and discussing complex ideas.

I can create a basic concept map.

I understand what is meant by 'concept maps', 'stage', 'nodes' and 'connections'.

I understand how a concept map can be used to retell stories and information.

I can create a collaborative concept map and present this to an audience.



## End of Year Expectations Computer Studies Year 5

## Game Creator

I can review and analyse a computer game.

I can describe some of the elements that make a successful game.

I can begin the process of designing my own game.

I can create the game's environment.

I can design characters for my game.

I can decide upon, and change, the animations and sounds that the characters make.

I can make my game more unique by selecting the appropriate options to maximise the playability.

I can write informative instructions for my game so that other people can play it.

I can evaluate mine and my peers' games.

## 3D Modelling

I know what the 2Design and Make tool is for.

I can explore the different viewpoints in '2Design and Make' whilst designing a building.

I can explore the effect of moving the points, to alter the shape of the vehicle while still maintaining its form, when designing.

I have explored how to edit the polygon 3D models to design a 3D model for a purpose.

I have refined one of my designs to prepare it for printing.

I have printed my design as a 2D net and then created a 3D model.

## Spreadsheets

I can create formula to convert measurements.

I can use the 'Count' tool to find out how many times things have been used in a spreadsheet.

I can use a spreadsheet to work out the area and perimeter of rectangles.

I can use these calculations to solve a real-life problem.

I can use text variables to perform calculations.

I can use a spreadsheet to plan an event.

## Database

I understand the different ways to search a database.

I can search a database in order to answer questions correctly.

I can contribute to a class database.

I can create a database around a chosen topic.

## Online Safety

I know what Childnet SMART CREW is and have I think critically about the information that I share online both about myself and others.

I know who to tell if I am upset by something that happens online.

I can use the SMART rules as a source of guidance when online.

I know how to maintain secure passwords.

I understand the advantages, disadvantages, permissions and purposes of altering an image digitally and the reasons for this.

I am aware of appropriate and inappropriate text, photographs and videos and the impact of sharing these online.

I know how to reference sources in my work.

I can search the Internet with a consideration for the reliability of the results of sources to check validity and understand the impact of incorrect information.