



Learning objectives, knowledge and skills

Advent		Lent		Pentecost	
2.1 Computing systems and networks – IT around us Identifying IT and how its responsible use improves our world in school and beyond.	2.2 Creating media – Digital photography Capturing and changing digital photographs for different purposes.	2.3 Programming A – Robot algorithms Creating and debugging programs, and using logical reasoning to make predictions.	2.4 Data and information – Pictograms Collecting data in tally charts and using attributes to organise and present data on a computer.	2.5 Creating media - Digital music Using a computer as a tool to explore rhythms and melodies, before creating a musical composition.	2.6 Programming B - Programming quizzes Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.
<ol style="list-style-type: none">To recognise the uses and features of information technology<ul style="list-style-type: none">I can describe some uses of computersI can identify examples of computersI can identify that a computer is a part of ITTo identify the uses of information technology in the school<ul style="list-style-type: none">I can identify examples of ITI can identify that some IT can be used in more than one wayI can sort school IT by what it's used forTo identify information technology beyond school<ul style="list-style-type: none">I can find examples of information technologyI can sort IT by where it is foundI can talk about uses of information technologyTo explain how information technology helps us<ul style="list-style-type: none">I can demonstrate how IT devices work togetherI can recognise common types of technologyI can say why we use ITTo explain how to use information technology safely<ul style="list-style-type: none">I can list different uses of information technologyI can say how rules can help keep me safeI can talk about different rules for using ITTo recognise that choices are made when using information technology<ul style="list-style-type: none">I can explain the need to use IT in different waysI can identify the choices that I make when using ITI can use IT for different types of activities	<ol style="list-style-type: none">To use a digital device to take a photograph<ul style="list-style-type: none">I can explain what I did to capture a digital photoI can recognise what devices can be used to take photographsI can talk about how to take a photographTo make choices when taking a photograph<ul style="list-style-type: none">I can explain the process of taking a good photographI can explain why a photo looks better in portrait or landscape formatI can take photos in both landscape and portrait formatTo describe what makes a good photograph<ul style="list-style-type: none">I can discuss how to take a good photographI can identify what is wrong with a photographI can improve a photograph by retaking itTo decide how photographs can be improved<ul style="list-style-type: none">I can experiment with different light sourcesI can explain why a picture may be unclearI can explore the effect that light has on a photoTo use tools to change an image<ul style="list-style-type: none">I can explain my choicesI can recognise that images can be changedI can use a tool to achieve a desired effectTo recognise that photos can be changed<ul style="list-style-type: none">I can apply a range of photography skills to capture a photoI can identify which photos are real and which have been changedI can recognise which photos have been changed	<ol style="list-style-type: none">To describe a series of instructions as a sequence<ul style="list-style-type: none">I can choose a series of words that can be enacted as a sequenceI can follow instructions given by someone elseI can give clear instructionsTo explain what happens when we change the order of instructions<ul style="list-style-type: none">I can show the difference in outcomes between two sequences that consist of the same commandsI can use an algorithm to program a sequence on a floor robotI can use the same instructions to create different algorithmsTo use logical reasoning to predict the outcome of a program<ul style="list-style-type: none">I can compare my prediction to the program outcomeI can follow a sequenceI can predict the outcome of a sequenceTo explain that programming projects can have code and artwork<ul style="list-style-type: none">I can explain the choices I made for my mat designI can identify different routes around my matI can test my mat to make sure that it is usableTo design an algorithm<ul style="list-style-type: none">I can create an algorithm to meet my goalI can explain what my algorithm should achieveI can use my algorithm to create a programTo create and debug a program that I have written<ul style="list-style-type: none">I can plan algorithms for different parts of a taskI can put together the different parts of my programI can test and debug each part of the program	<ol style="list-style-type: none">To recognise that we can count and compare objects using tally charts<ul style="list-style-type: none">I can compare totals in a tally chartI can record data in a tally chartI can represent a tally count as a totalTo recognise that objects can be represented as pictures<ul style="list-style-type: none">I can enter data onto a computerI can use a computer to view data in a different formatI can use pictograms to answer simple questions about objectsTo create a pictogram<ul style="list-style-type: none">I can explain what the pictogram showsI can organise data in a tally chartI can use a tally chart to create a pictogramTo select objects by attribute and make comparisons<ul style="list-style-type: none">I can answer 'more than'/'less than' and 'most/least' questions about an attributeI can create a pictogram to arrange objects by an attributeI can tally objects using a common attributeTo recognise that people can be described by attributes<ul style="list-style-type: none">I can choose a suitable attribute to compare peopleI can collect the data I needI can create a pictogram and draw conclusions from itTo explain that we can present information using a computer<ul style="list-style-type: none">I can give simple examples of why information should not be sharedI can share what I have found out using a computerI can use a computer program to present information in different ways	<ol style="list-style-type: none">To say how music can make us feel<ul style="list-style-type: none">I can describe music using adjectivesI can identify simple differences in pieces of musicI can say what I do and don't like about a piece of musicTo identify that there are patterns in music<ul style="list-style-type: none">I can create a rhythm patternI can explain that music is created and played by humansI can play an instrument following a rhythm patternTo experiment with sound using a computer<ul style="list-style-type: none">I can connect images with soundsI can relate an idea to a piece of musicI can use a computer to experiment with pitchTo use a computer to create a musical pattern<ul style="list-style-type: none">I can explain how my music can be played in different waysI can identify that music is a sequence of notesI can refine my musical pattern on a computerTo create music for a purpose<ul style="list-style-type: none">I can add a sequence of notes to my rhythmI can create a rhythm which represents an animal I've chosenI can create my animal's rhythm on a computerTo review and refine our computer work<ul style="list-style-type: none">I can explain how I changed my workI can listen to music and describe how it makes me feelI can review my work	<ol style="list-style-type: none">To explain that a sequence of commands has a start<ul style="list-style-type: none">I can identify that a program needs to be startedI can identify the start of a sequenceI can show how to run my programTo explain that a sequence of commands has an outcome<ul style="list-style-type: none">I can change the outcome of a sequence of commandsI can match two sequences with the same outcomeI can predict the outcome of a sequence of commandsTo create a program using a given design<ul style="list-style-type: none">I can build the sequences of blocks I needI can decide which blocks to use to meet the designI can work out the actions of a sprite in an algorithmTo change a given design<ul style="list-style-type: none">I can choose backgrounds for the designI can choose characters for the designI can create a program based on the new designTo create a program using my own design<ul style="list-style-type: none">I can build sequences of blocks to match my designI can choose the images for my own designI can create an algorithmTo decide how my project can be improved<ul style="list-style-type: none">I can compare my project to my designI can debug my programI can improve my project by adding features

#BTK and Links with other subjects

Key Vocabulary