

DCC Progression Frameworks - Third/Fourth Level

Rationale

Dundee City Council's Progression framework documents, at third and fourth levels, provide a council-wide aid to practitioners in curriculum planning and assessment design.

They offer guidance on Broad General Education learning pathways within the S1 to S3 curriculum, creating natural progression from primary to secondary to support teachers in preparing learners for the rigours of National 4 and National 5.

These documents aim to encourage pace and challenge across third and fourth levels, while accounting for breadth and depth within each curricular area, with a central focus on application of skills and knowledge in order to achieve the benchmarks.

Purpose

These frameworks are a tool to provide guidance for learning progression within S1 to S3, across BGE third and fourth levels. They should be used in conjunction with schools' planning, tracking and assessment approaches.

These documents have been designed with two purposes in mind:

- to inform teacher judgements about an individual learner's progression through each curricular area.
- to assist in the moderation of each department's own framework for effective planning of learning, teaching and assessment.

User Guidance

General Layout: (see Appendix 1)

The frameworks assist practitioners in creating a learner journey starting at the experience and outcome and ending at the achievement of the accompanying benchmark for that outcome.

- The experiences and outcomes have been categorised into primary and secondary organisers according to practitioner input.
- In order to reflect an individual learner's journey within S1 to S3, third and fourth levels have been bundled, where appropriate, to provide a blended pathway.

Reading the Document: (see Appendix 2)

The documents include two colour gradients to represent the deepening knowledge, skills and learning of the individual as they progress from third level to fourth level. This colour gradient also serves to aid the practitioner in making clear and efficient learner judgements.

The document is designed to be read:

1. Horizontally: to chart a learner's individual journey through depth, challenge and application.
2. Vertically: To plan moderation of learning, teaching and assessment, taking account of the breadth of the curricular area.

Meta Skills:

Meta-skills are innate, timeless, higher-order skills that create adaptive learners and promote success in whatever context the future brings. Each benchmark has a suggested linked meta-skill (**marked in blue text**) **however** these are only suggestions and others may be more appropriate for your planning. A link to the Meta Skills frameworks can be found [here](#).

Primary Organiser:

This signposts the over-arching curricular organiser.

Secondary Organiser:

This signposts the curricular sub-organiser which links to the experiences and outcomes in the next column.

Appendix 1: General Layout

Benchmarks:

The benchmarks are used to inform assessment of progress and support teacher professional judgement. Third and Fourth Level benchmarks have been 'bundled' to outline a learner's progression across topic or skill set.

| | EXPERIENCES AND OUTCOMES | PROGRESSION | | | BENCHMARKS |
|---|--|--|--|--|--|
| | | 3.1 | 3.2/4.1 | 4.2 | |
| | | I can/am able to: | I can explain why some habitats are inhabited by some organisms and not others (e.g. protection from predators, resistance to drought, photosensitivity etc.) | I can/am able to: | |
| Organiser -Planet Earth Biodiversity and Interdependence | I can sample and identify living things from different habitats to compare their biodiversity and can suggest reasons for their distribution. SCN 3-01a | <ul style="list-style-type: none"> I can use the term biodiversity and describe why its maintenance is important. I can identify abiotic factors such as, temperature, pH, oxygen levels, light levels, wind speed, humidity, and describe how to measure them. I can identify biotic factors such as, predators, disease, build-up of waste and describe how they can affect the distribution of organisms. I can describe the use of a variety of sampling methods, including pitfall traps/tullgren funnels, quadrats, beating stick and tray, water net, to collect organisms. | <ul style="list-style-type: none"> I can explain why some habitats are inhabited by some organisms and not others (e.g. protection from predators, resistance to drought, photosensitivity etc.) I can compare and explain the differences between two habitats in terms of the biotic and abiotic factors, knowing the adaptations of the organisms (e.g. desert versus pond) | <ul style="list-style-type: none"> I can describe the relationship between the terms habitat, population, community and ecosystem. I can use food chains and food webs to describe how populations of organisms in an ecosystem impact on each other. I can explain why increased biodiversity contributes to the stability of an ecosystem. I can explain how changes such as population growth or natural disasters will affect biodiversity and increase competition and can predict how this might affect a particular ecosystem. | Identifies living things using biological keys. Collects and analyses increasingly complex data and information, for example, temperature and light intensity, to suggest reasons for the distribution of organisms within different habitats. |
| | I understand how animal and plant species depend on each other and how living things are adapted for survival. I can predict the impact of population growth and natural hazards on biodiversity. SCN 4-01a | <ul style="list-style-type: none"> I can use the term biodiversity and describe why its maintenance is important. I can identify abiotic factors such as, temperature, pH, oxygen levels, light levels, wind speed and humidity, I can identify biotic factors such as, predators, disease, build-up of waste and describe how they can affect the distribution of organisms. | | | Describes how plants and animals depend on each other for food, shelter and pollination, using scientific vocabulary such as 'population', 'community' and 'species'. Explains the possible effects of removal or addition of species on food webs and biodiversity. Summarises research findings to provide examples of structural, physiological and behavioural adaptations which lead to species survival. |

Experiences and Outcomes:

The experiences and outcomes are used to plan learning and the assessment of progress in the B.G.E. They provide coherence and signpost progression in learning within each level, as well as supporting progression to learning at the next level, setting challenging standards. Third level experiences and outcomes have been paired with their fourth level counterpart to aid in this.

Progression Columns:

The central three columns detail 'I can' statements that exemplify a learner's progress towards the level three, and then the accompanying level four benchmark within that organiser. Within these columns key words have been highlighted in **bold**.

Appendix 2: Reading the Framework

For each learner, the journey through third and fourth level will vary, depending on the individual. It will take account of the need for breadth, challenge and application.

| Evaluation | EXPERIENCES AND OUTCOMES | PROGRESSION | | | BENCHMARKS |
|--|--|--|--|--|---|
| | | 3.1 | 3.2/4.1 | 4.2 | |
| | | I can/am able to: | I can/am able to: | I can am/able to: | |
| Giving/receiving feedback on own and others work | I can respond to the experience of drama by discussing my thoughts and feelings. I can give and accept constructive feedback on my own and others work. EXA 3-15a | Give constructive feedback to others about their choice of performance skills, either as an area of strength or an area for improvement. | Give constructive feedback to others about their use of performance skills, which is highly relevant to the intended dramatic purpose, Give more detailed, evaluative comments to others about their use of performance skills. | Give a range of detailed, evaluative comments to others about their use of performance skills, giving at least one area for improvement and one area of strength, including suggestions for next step. | Level 3: Reflects effectively on ideas, including ideas for using production skills in relation to, for example, lighting, sound, props, make-up and hair, in order to improve or enhance a drama, using appropriate drama vocabulary. Level 4: Analyses their own and others' performances, including the work of peers and, where possible, professionals, making detailed comments, with appropriate justification using appropriate drama vocabulary consistently. |
| | I can analyse technical aspects of drama and scripts, make informed judgements and express considered opinions on my own and other's work. EXA 4-15a | Reflect on my own performance skills, commenting on my choice of different elements of performance skills. | Reflect on my use of a range of performance skills, commenting on how well I contributed to the dramatic purpose. I can evaluate my use of performance skills, making judgements on my contribution to the dramatic purpose and audience impact. | Evaluate my use of a range of performance skills, making considered judgements on my contribution and deciding on my next steps for improvement. | |
| | | Reflect on the choice of basic production skills in my own and other's performances, commenting on their impact. | Reflect on the use of a range of production skills in my own and other's performances, commenting on their contribution to dramatic purpose. Evaluate the use of a range of production skills in my own and other's performances, making judgements about their effectiveness. | Evaluate the use of the full range of production skills in my own and other's performances, making considered judgements that show an understanding of audience interpretation. | |

Colour Coding:

The two tones have been used throughout to identify third and fourth level experiences and outcomes, pathway statements and benchmarks to show progression.



Planning of learning, teaching and assessment, should ensure a breadth of learning across organisers and statements. This should be supported through the moderation process.

Level 3.1
Exemplifies a typical learner, working within level 3.

Level 3.2/4.1
Exemplifies a learner who is applying skills at third level and is beginning to work within fourth level.

Level 4.2
Exemplifies a typical learner, working within level 4.

DUNDEE COMPUTING PROGRESSION FRAMEWORK – THIRD & FOURTH LEVEL

| C o m p u t i n g S c i e n c e | U n d e r s t a n d t h e w o r l d t h r o u g h c o m p u t a t i o n a | EXPERIENCES AND OUTCOMES |  PROGRESSION  | | | BENCHMARKS |
|--|---|---|--|---|---|--|
| | | | 3.1 | 3.2/4.1 | 4.2 | |
| | | | I can/am able to: | I can/am able to: | I can/am able to: | |
| | | <p>I can describe different fundamental information processes and how they communicate and can identify their use in solving different problems. TCH 3-13a</p> <p>I can describe in detail the processes used in real world solutions, compare these processes against alternative solutions and justify which is the most appropriate. TCH 4-13a</p> | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Recognise the need for communicating within systems. | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Describe the communication processes in systems such as online payment or airline seat reservation. • Draw a simple flowchart to show the communication processes in a real-world system. • | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Recognise that information can be represented in many forms and can explain a range of ways information can be transferred through complex systems. | <p>Recognise and describe information systems with communicating processes which occur in the world around me. Self-management – Focusing. Identify the transfer of information through complex systems involving both computers and physical artefacts, for example, airline check-in, parcel tracking and delivery. Innovation - Curiosity</p> |
| | | <p>I am developing my understanding of information and can use an information model to describe particular aspects of a real-world system. TCH 3-13b</p> <p>I can informally compare algorithms for correctness and efficiency. TCH 4-13b</p> | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Explain the difference between the operation of processor, a dual-core processor, and a quad-core processor. | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Recognise the difference between parallel processes and those that communicate with each other. • Understand and can explain multitasking by computers. | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Give examples of situations where the use of multiple communicating processes would be beneficial. | <p>Explain the difference between parallel processes and those that communicate with each other. Social intelligence - Communicating Identify the transfer of information through complex systems involving both computers and physical artefacts, for example, airline check-in, parcel tracking and delivery. Innovation - Curiosity</p> |

DUNDEE COMPUTING PROGRESSION FRAMEWORK – THIRD & FOURTH LEVEL

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|---|--|---|---|---|---|
| I t h i n k i n g | | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Recognise that social media platforms use encryption to keep the contents of messages safe. | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Understand photographs and videos are large files so need to be reduced to speed up downloading times. • Explain the difference between lossy and lossless compression. | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Understand and explain the need for data compression and encryption and perform a range data compression and encryption methods. | <p>Demonstrate an understanding of the basic principles of compression and encryption of information.</p> <p>Self-managing - Focusing Identify the transfer of information through complex systems involving both computers and physical artefacts, for example, airline check-in, parcel tracking and delivery.</p> <p>Innovation – Curiosity</p> |
| | | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Recognise the unique field in a given dataset. | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Identify a suitable primary key for a given dataset. • Understand the difference between a primary key and composite keys and when to use them. | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Construct simple composite keys for datasets without a single unique field. | <p>Identify a set of characteristics describing a collection of related items that enable each item to be individually identified.</p> <p>Self-managing - Focusing Describe instances of human decision making as an information process, for example, deciding which check-out queue to pick, which route to take to school. How to prepare family dinner / a school event</p> <p>Social intelligence – Communicating.</p> |

DUNDEE COMPUTING PROGRESSION FRAMEWORK – THIRD & FOURTH LEVEL

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| | | | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Recognise when a table of information has been sorted by one field. | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Recognise when a table of information has been sorted by more than one field. • Recognise that a table of information is the result of a search performed on a larger data set. | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Understand the notion of performance algorithms and appreciates that some algorithms have different performance characteristics for the same task. | <p>Identify the use of common algorithms such as sorting and searching as part of larger processes.</p> <p>Self-managing - Focusing Compare alternative algorithms for the same problem and understand that there are different ways of defining “better” solutions depending on the problem context for example, is speed or space more valuable in this context?</p> <p>Innovation – critical thinking</p> |
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DUNDEE COMPUTING PROGRESSION FRAMEWORK – THIRD & FOURTH LEVEL

| C o m p u t i n g S c i e n c e | U n d e r s t a n d i n g a n a l y s i n g c o m p u t i n g t e c h n o l o g y | EXPERIENCES AND OUTCOMES | PROGRESSION | | | BENCHMARKS |
|--|---|---|---|---|---|---|
| | | | 3.1 | 3.2/4.1 | 4.2 | |
| | | | I can/am able to: | I can/am able to: | I can/am able to: | |
| | | <p>I understand language constructs for representing structured information. TCH 3-14a</p> <p>I understand constructs and data structures in a textual programming language. TCH 4-14a</p> <p>I can describe the structure and operation of computing systems which have multiple software and hardware levels that interact with each other. TCH 3-14b</p> <p>I can explain the overall operation and architecture of a digitally created solution TCH 4-14b</p> <p>I understand the relationship between high level language and the operation of computer TCH 4-14c</p> | <p>I can/am able to:</p> <ul style="list-style-type: none"> Read information from a table, spreadsheet, and database. | <p>I can/am able to:</p> <ul style="list-style-type: none"> Correctly read the same information when presented in different ways. For example, on a line chart and pie chart. Select the best way to represent a given set of data. Identify sections of code as being either sequence, selection, or repetition. | <p>I can/am able to:</p> <ul style="list-style-type: none"> Create flowcharts to demonstrate sequence, selection, and repetition. Create programs in Scratch to which demonstrate sequence, selection, or repetition. | <p>Understand that the same information could be represented in more than one representational system. Innovation – Sense making.</p> <p>Understand basic control constructs such as sequence, selection, repetition, variables, and numerical calculations in a textual language. Innovation – Sense making.</p> |
| | | | <p>I can/am able to:</p> <ul style="list-style-type: none"> Use a data set to find the answers to given questions. | <p>I can/am able to:</p> <ul style="list-style-type: none"> Apply sort or search functions to data to show the data in different ways. Compare the impact of the way data is described. For example, 25% failure rate when a class only contained 4 pupils. | <p>I can/am able to:</p> <ul style="list-style-type: none"> Distinguish between a single item of data and a data structure E.g., comparing a single name to a class list | <p>Understand that different information could be represented in exactly the same representation. Innovation – Sense making.</p> <p>Demonstrate an understanding of representations of data structures in a textual language. Social intelligence – Communicating.</p> |

DUNDEE COMPUTING PROGRESSION FRAMEWORK – THIRD & FOURTH LEVEL

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| | | | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Add a list to a webpage. | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Add an ordered or unordered list to a webpage. • Add a table to a webpage. | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Create a usable program plan when designing and creating digital artefacts for a known audience. | <p>Demonstrate an understanding of structured information in programs, databases, or webpages.</p> <p>Social intelligence – Communicating.</p> <p>Demonstrate an understanding of program plans expressed in accepted design representations for example pseudocode, storyboarding, structure diagram, data flow diagram, flow chart.</p> <p>Innovation – Sense making.</p> |
| | | | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Select an appropriate heading size (h1-h6) for different titles \ subtitles on a webpage. | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Describe the difference between the two-heading size. • Use simple CSS to change the appearance of items on a webpage. | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Use CSS to apply different appearances to a range of sections on a webpage. | <p>Describe the effect of mark-up language on the appearance of a webpage and understand that this may be different on different devices.</p> <p>Self-managing - Focusing</p> <p>Demonstrate an understanding of how visual instructions and textual instructions for the same construct are related.</p> <p>Social intelligence – Communicating.</p> |

DUNDEE COMPUTING PROGRESSION FRAMEWORK – THIRD & FOURTH LEVEL

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| | | <p>I can/am able to:</p> <ul style="list-style-type: none"> Describe the simplified 4 box Von Neumann architecture diagram. | <p>I can/am able to:</p> <ul style="list-style-type: none"> Draw the full Von Neumann architecture diagram. Describe the fetch execute cycle. | <p>I can/am able to:</p> <ul style="list-style-type: none"> Understand and explain that processors have instruction sets and that these relate to low-level instructions carried out by a computer. | <p>Demonstrate an understanding of von Neumann architecture and how machine code instructions are stored and executed within a computer system. Self-managing - Adapting Demonstrate an understanding of how computers represent and manipulate information in a range of formats. Self-managing - Focusing</p> |
| | | <p>I can/am able to:</p> <ul style="list-style-type: none"> Follow a value through a simple program to reach the correct output. | <p>I can/am able to:</p> <ul style="list-style-type: none"> Follow multiple values through a program to reach the correct output(s). Describe the expected data flow through an array as a program is executed Detect and correct syntactical errors | <p>I can/am able to:</p> <ul style="list-style-type: none"> Apply a modular approach to error detection and correction | <p>Read and explain code extracts including those with variables and data structures. Social intelligence – Communicating. Identify and explain syntax errors in a program written in a textual language. Innovation - Curiosity</p> |
| | | <p>I can/am able to:</p> <ul style="list-style-type: none"> Understand a computer system is based on binary. | <p>I can/am able to:</p> <ul style="list-style-type: none"> Recognise that data is transferred within a computer system between senders and receivers. Understand the concept of addressability within storage. | <p>I can/am able to:</p> <ul style="list-style-type: none"> Describe the function of packets in network communication. | <p>Demonstrate an understanding of how computers communicate and share information over networks including the concepts of sender, receiver, address, and packets. Social intelligence – Communicating.</p> |

DUNDEE COMPUTING PROGRESSION FRAMEWORK – THIRD & FOURTH LEVEL

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| | | | | | <p>Demonstrate an understanding of the underling technical concepts of some specific facets of modern complex technologies for example, on line payment systems and satnav.</p> <p>Innovation – Sense making.</p> |
| | | <p>I can/am able to:</p> <ul style="list-style-type: none"> ● Explain the need to compress files. ● Encrypt data using a Caesar cypher. | <p>I can/am able to:</p> <ul style="list-style-type: none"> ● Explain the difference between lossy and lossless compression. ● Describe the function of a public and private key in encryption | <p>I can/am able to:</p> <ul style="list-style-type: none"> ● Describe the use of MD5 hashing. | <p>Understand simple compression and encryption techniques used in computing technology.</p> <p>Innovation – Curiosity.</p> <p>Demonstrate an understanding that computers translate information processes between different levels of abstraction.</p> <p>Innovation – Sense making.</p> |

DUNDEE COMPUTING PROGRESSION FRAMEWORK – THIRD & FOURTH LEVEL

| C o m p u t i n g S c i e n c e | D e s i g n i n g , b u i l d i n g a n d t e s t i n g c o m p u t i n g s o l u t i o n s | EXPERIENCES AND OUTCOMES | PROGRESSION | | | BENCHMARKS |
|--|--|---|---|--|--|--|
| | | | 3.1 | 3.2/4.1 | 4.2 | |
| | | | I can/am able to: | I can/am able to: | I can/am able to: | |
| | | <p>I can select appropriate development tools to design, build, evaluate and refine computing solutions based on requirements. TCH 3-15a</p> <p>I can select appropriate development tools to design, build, evaluate and refine computing solutions to process and present information whilst making reasoned arguments to justify my decisions. TCH 4-15a</p> | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Create a simple program in Scratch to add grades together to calculate a total. | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Create a simple game in Scratch which includes numerical point and life systems. • Create a true, false quiz game in Scratch. • Draw a simple storyboard for an animation or video • Identify the symbols for differing stages in a flow chart. • Create a flowchart to represent a real-life process. e.g. making toast | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Plan the coding for program using simple pseudocode. • Use a data flow diagram to predict the output of a system when provided the input values. | <p>Design and build a program using a visual language combining constructs and using multiple variables. Innovation – Creativity.</p> <p>Create a design using accepted design notations for example, pseudocode, storyboarding, structure diagram, data flow diagram, flow chart. Innovation – Creativity.</p> |
| | | | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Add a list to a program in Scratch. | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Create a program which displays a random message from a pre-defined list. For example, a magic 8 ball. • Use the index value to draw together information from multiple lists. • Amend data within an existing relational database. • Insert new records into an existing relational database. | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Design and write a program that demonstrates understanding of the scope of a variable. • Identify suitable division of fields to generate an efficient relational database. • Create a simple two table, relational database when given a larger set of information. | <p>Represent and manipulate structured information in programs, or databases for example, works with a list data structure in a visual language, or in a flat file database. Innovation – Sense-making.</p> <p>Design appropriate data structures to represent information in a textual language. Innovation – Creativity.</p> <p>Write a program in a textual language which used variables and</p> |

DUNDEE COMPUTING PROGRESSION FRAMEWORK – THIRD & FOURTH LEVEL

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| | | | | | constructs such as sequence, selection and repetition. Develop a relational database to represent structured information. Innovation – Creativity. |
| | | I can/am able to: <ul style="list-style-type: none"> Differentiate between input and output devices. | I can/am able to: <ul style="list-style-type: none"> Complete an IPO table based on the information given in a program statement. Create a program from a problem statement. Complete simple test table for a programme Construct a test table for a programme | I can/am able to: <ul style="list-style-type: none"> Write a sentence to judge the success of the program in completing a given task. Select suitable normal, extreme, and exceptional test data for a program. Write a paragraph describing a program's fitness for purpose. | Interpret a problem statement and identify processes and information to create a physical computing and/or software solution. Innovation – Sense-making. Analyse problem specifications across a range of contexts, identifying key requirements. Innovation – Critical thinking. Write test and evaluation reports. Innovation – Creativity. |
| | | I can/am able to: <ul style="list-style-type: none"> Identify mathematical errors in calculations within code. | I can/am able to: <ul style="list-style-type: none"> Identify errors in comparisons within code. For example, "If Average > 50" when it should be "If Average >= 50". Correct a section of code which contains multiple logic errors. Differentiate between syntax and logic errors. | I can/am able to: <ul style="list-style-type: none"> Correct a program which contains errors. | Can find and correct errors in program logic. Self-managing – Focusing. Debug code and can distinguish between the nature of identified errors e.g., syntax and logic. Innovation – Critical thinking. |

DUNDEE COMPUTING PROGRESSION FRAMEWORK – THIRD & FOURTH LEVEL

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|--|--|---|---|--|--|
| | | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Divide a program into inputs, processes and outputs. | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Create blocks of code in Scratch using the 'my block' feature. • Assemble complete programs from blocks within Scratch. • Include predefined functions in programs. • Explain the differences between logical operators. | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Select the correct logical operator to fill a gap in an existing line of code. • Construct logical statements to correctly meet a given condition. | <p>Group related instructions into named subprograms (in a visual language). Self-managing – Focusing. Can make use of logical operators – AND, OR, NOT. Self-managing – Adapting.</p> |
| | | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Use a variable to store a value within a program. | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Use values contained within variables to perform simple mathematical calculations. E.g., Wage = Hours_Worked * RateofPay • Implement a simple list variable to store multiple values e.g., a list of test results. | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Use the index value from two lists to match the values stored within variables. E.g., The correct answer being matched to a question for a quiz. | <p>Write code in which there is communication between parallel processes (in a visual language). Innovation – Creativity. Write a program in a textual language which uses variables within instructions instead of specific values where appropriate. Innovation – Creativity.</p> |
| | | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Use the ask feature in Scratch to gather information from the end user. | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Build a hangman style game in Scratch. • Follow instructions to create simple interactive programs with a BBC Microbit. • Use a scratch program to meet a set brief. • Code a BBC Microbit to perform a set task or function e.f. replicating a dice. | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Code a BBC Microbit to perform a complex set of tasks or functions e.g., running a flappy bird style game. | <p>Write code which receives and responds to real work inputs (in a visual language). Innovation – Creativity. Select an appropriate platform on which to develop a physical and/or software solution from a requirements specification.</p> |

DUNDEE COMPUTING PROGRESSION FRAMEWORK – THIRD & FOURTH LEVEL

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|--|--|--|---|--|---|---|
| | | | | | | Self-managing – Initiative |
| | | | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Implement HTML to create a page containing headings and paragraphs. | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Implement HTML to add images to a webpage. • Use CSS to edit the appearance of text on a webpage. • Use CSS to edit the size and location of objects on a webpage. • Implement HTML to add tables, sound or videos to a webpage. • Add a simple game to a webpage using iframes. | <p>I can/am able to:</p> <ul style="list-style-type: none"> • Implement javascript to perform onmouseover or onmouseout operations. | <p>Design and build web pages using appropriate mark-up languages. Innovation – Creativity. Design and build web pages which include interactivity. Innovation – Creativity.</p> |