**DIGITAL TECHNOLOGIES:**

**UNPACKING THE CONTENT DESCRIPTIONS**

PLEASE NOTE:
This pack does not contain all content descriptions for Foundation to Level 2, but can be used as a guide to develop your own lesson plans

**Digital Technologies: Unpacking the Content Descriptions**

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| **Strand** | Creating Digital Solutions |  | **Sample activities** |
| **Content Description** | Follow, describe and represent a sequence of steps and decisions (algorithms) needed to solve simple problems |  Unplugged – without a digital device:* following basic step-by-step instructions, such as a recipe
* use of terminology: start, stop, forwards, backwards, left and right
* using cards with arrows or symbols to create a simple algorithm
* programming a class mate as a robot, for example developing instructions for another student to follow
* following instructions and steps sequentially, including decision-making
* recording the steps as symbols to solve a problem, for example using arrows

Plugged - with a digital device:* exploring the functions of buttons on a digital device
* experimenting with a digital device, for example going forward and backward
* programming a digital device to follow a simple sequence of steps to solve a problem, for example following a set of instructions written as arrows
* programming a digital device to make a square programming a digital device to follow a path to avoid an obstacle
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| **Related extract from Achievement Standard** | Students design solutions to simple problems using a sequence of steps and decisions. |
| **Suggested focus** | Lessons may focus on:* introducing algorithms and following steps sequentially
* discussing the terminology around algorithms
* making decisions when following step-by-step instructions
* solving a problem by developing an algorithm, for example writing a sequence of steps or using arrows or symbols
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| **Strand** | **Data and Information** |  | **Sample activities** |
| **Content Description** | Recognise and explore patterns in data and represent data as pictures, symbols and diagrams | * creating a pictograph using emojis
* surveying a class mate to find similarities and differences
* sorting a collection of items using different categories, such as alphabetical order, numerical order and size order
* collecting class data about birthday months and using Unifix blocks in different colours to display information
* representing data as patterns in different ways, for example images and sound
* reducing an image file so that it could be emailed by reducing the dimensions or choosing a different format
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| **Related extract from Achievement Standard** | Students use digital systems to represent simple patterns in data in different ways and collect familiar data and display them to convey meaning. |
| **Suggested focus** | Lessons may focus on:* data represented as patterns, pictures, objects and symbols
* graphing with symbols, such as pictographs
* how to collect data in class for sorting or graphing
* different ways of sorting and comparing data, for example shortest to longest, smallest to largest
* relationship between picture size and file size
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| **Strand** | **Data and Information** |  | **Sample activities** |
| **Content Description** | Independently and with others create and organise ideas and information using information systems, and share these with known people in safe online environments | * creating a multimedia document, such as a character profile or a class profile that includes an image of each student that is shared on the school intranet or class blog
* creating a personal audio/video recording and a written message on the school intranet
* collaboratively creating a photo story online as a blog with text, images and audio/video to illustrate a familiar or creative story
* discussing cybersafety obligations with students, for example checking that all parents of students in a photo have given permission for the photo to be shared safely online on the school intranet or class blog
* a teacher-directed activity involving the sharing of ideas and information online safely through blogs or class email, messaging only to people that students know
* using bookmarked websites when searching for information
* using moderated online spaces, such as the school intranet or class blog when sharing information
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| **Related extract from Achievement Standard** | They create and organise ideas and information using information systems and share these in safe online environments. |
| **Suggested focus** | Lessons may focus on:* using different types of data such as text, images and sound to create information for sharing online with a known audience
* planning and creating text, image and sound files to share online with a known audience
* making ethical decisions when using images for public viewing
* making ethical decisions when using the work of others
* identifying and participating in safe online environments, for example the school’s intranet
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**Digital Technologies: Unpacking the Content Descriptions**

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| **Strand** | **Digital Systems** |  | **Sample activities** |
| **Content Description** | Identify and explore digital systems (hardware and software components) for a purpose | * identifying common digital systems in the classroom and their purpose, for example laptops, tablets, interactive whiteboards
* identifying common digital systems at home and their purpose, for example smart phones, desktop computers, tablets and smart TVs
* linking identified digital systems with an identified purpose, for example using a laptop to word process a story or using a tablet to take photographs
* identifying that inputs are a way of entering data into a digital system, for example keyboard, mouse, touch pad, touch screen, buttons on a robotic device
* identifying that outputs are a way for a digital system to represent data to the user, for example a monitor for displaying information and speakers to provide sound
* using a digital system to take photographs and inserting them into a document
* creating a multimedia solution that includes text, images, audio and video
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| **Related extract from Achievement Standard** | Students identify how common digital systems are used to meet specific purposes. |
| **Suggested focus** | Lessons may focus on:* types of common digital systems and their purpose
* basic functions of inputs and outputs
* using digital systems to download and store images
* learning to create an audio recording while exploring hardware and software
* learning to create a video recording while exploring hardware and software
* learning to create a photo story using photos and music
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