



## Computing Knowledge Progression 'At Worthington We Will Know.....'



	Computer systems and networks	Internet safety
<b>Nursery</b>	<p>I can explore how things work including a Beebot</p> <p>I can watch the whiteboard and use some programmes that are touch sensitive e.g. Numberblocks games</p>	<p>I know I must not use the internet by myself</p>
	<p><b>Vocabulary</b> Beebot, programme, Whiteboard</p>	<p><b>Vocabulary</b> Internet</p>
<b>Reception</b>	<p>I can use the whiteboard to complete tasks on programmes such as topmark maths</p> <p>I know that I can find information using the IPAD, laptop, whiteboard to access search engines and apps such as google, goggle earth</p>	<p>I know that I need to ask an adult for help when using the internet</p>
	<p><b>Vocabulary</b> Whiteboard , touch, drag</p>	<p><b>Vocabulary</b> internet information</p>
<b>Year One</b>	<p>How can I log on and off on the computer?</p> <p>I know how to switch on a computer.</p> <p>I know how to log on and shut down safely.</p> <p>I can use a mouse – left click and right click -move the curser -click and drag.</p> <p>I know how to open and close programs.</p> <p>I know how to use a keyboard - space bar, back space and enter</p>	<p>How does Smartie the Penguin help us to stay safe on the computer?</p> <p>I know how to use my knowledge of e-safety when researching a topic with support.</p>
	<p><b>Vocabulary</b> Monitor, display, keyboard, mouse, trackpad, system unit, headphones, switch. Launch, application, window, minimise, restore, size, move, screen, close, exit.</p>	<p><b>Vocabulary</b> Digital footprint, online citizen, bullying, teasing, e-safety, password.</p>
<b>Year Two</b>	<p>How do computers help us?</p> <p>I know examples of computers</p> <p>I know some uses of computers</p>	<p>How can I use the computer safely?</p> <p>I know what 'digital footprint' means.</p> <p>I know some of the ways people might use the information I put online.</p>

	<p>I know that a computer is a part of IT  I know examples of IT  I know school IT by what it's used for  I know that some IT can be used in more than one way  I know examples of information technology  I know IT by where it is found  I know about uses of information technology  I know common types of technology  I know how IT devices work together  I know why we use IT  I know different uses of information technology  I know about different rules for using IT  I know how rules can help keep me safe  I know the choices that I make when using IT  I know the IT to use for different types of activities  I know the need to use IT in different ways</p>	<p>I know which keywords will give me good results.  I know how to use a website to search for information.  I know when to ask an adult for advice about accessing a website.  I know what to do if a website makes me uncomfortable in any way.  I know what people might want to know about a website to decide whether it is useful or not.  I know what I like or dislike about a website.  I know how to identify unkind online behaviour.  I know what to do if I think someone is being unkind to me online.  I know how to choose a sensible course of action if I feel uncomfortable online.  I know how to safely search for information online.</p>
	<p><b>Vocabulary</b>  Information technology, computer, barcode, scanner/scan</p>	<p><b>Vocabulary</b>  Digital footprint, trail, e-safety, online, website, advert, content, social media, post, public. Key word, search, internet</p>
<p><b>Year Three</b></p>	<p><b>How do computers connect to make networks?</b></p> <p>I know that digital devices accept inputs  I know that digital devices produce outputs  I know to follow a process  I know how to classify input and output devices  I know how to describe a simple process  I know how to design a digital device  I know how I use digital devices for different activities  I know similarities between using digital devices and using non-digital tools  I know how to suggest differences between using digital devices and using non-digital tools  I know and recognise different connections  I know how messages are passed through multiple connections  I know why we need a network switch  I know that a computer network is made up of a number of devices  I can know how information can be passed between devices  I know how to explain the role of a switch, server, and wireless access point in a network  I know how devices in a network are connected together</p>	<p><b>How do I stay safe online?</b></p> <p>I know what cyberbullying is and how to address it.  I know how to identify adverts online.  I know how to identify a targeted advert.  I know how companies use websites to promote products.  I know how to create a strong password.  I know why a strong password is important.  I know what privacy settings are.  I know email is a form of communication.  I know email that I should not open.  I know how to write an email with an address and subject.  I know which online communities I am a part of.  I know different forms of online communication.  I know the positive and negative aspects of online communities.  I know how to discuss what I have learnt about online safety.  I know how to communicate my ideas with a group clearly and listen to others' contributions.  I know what I know about online safety to plan a party using online methods.</p>

	<p>I know networked devices around me I know the benefits of computer networks</p> <p><b>Vocabulary</b> Input, Output, process, device, wires, server, wireless access points, network switch, network sockets, network cables.</p>	<p><b>Vocabulary</b> Email, comment, cyberbullying, secure, private, advert, settings</p>
<b>Year Four</b>	<b>What is the Internet?</b>	<b>Do I know how to prevent cyberbullying?</b>
	<p>I know to describe the internet as a network of networks I know how information is shared across the internet I know networked devices and how they connect I know that the internet is used to provide many services I know where websites are stored when uploaded to the WWW I know how to access websites on the WWW I know what media can be found on websites I know that I can add content to the WWW I know that websites and their content are created by people I know who owns the content on websites I know that not everything on the World Wide Web is true I know why some information I find online may not be honest, accurate, or legal</p>	<p>I know how to edit my own messages and comments to make sure I am not being unkind. I know why other people may be hurt by messages. I know how to access a trusted search engine. I know strategies which improve my results when searching online. I know how to use other people's work respectfully. I know what a citation is. I know what information that I shouldn't share online. I know why it is dangerous to share certain information. I know what digital citizenship is. I know how to be a good citizen in real life and online. I know how to design a character that represents at least one aspect of online safety. I know how to use what I have learnt about online safety to explain what behaviour my superhero will look for.</p>
	<p><b>Vocabulary</b> Internet, network, router, network security, switch, server, wireless access point, website, web page, web address, web browser, World Wide Web, content, links, files, download, sharing, ownership, permission, information, sharing, accurate, honest, content, adverts.</p>	<p><b>Vocabulary</b> Online, cyberbullying, e-safety, search engine, keywords, synonyms, results, plagiarism, citations/cite, profiles, social media, account, register, private, public, digital citizenship, responsibility.</p>
<b>Year Five</b>	<b>How can I use a search engine effectively?</b>	<b>How can I stay safe online?</b>
	<p>I know what a web crawler is. I know how web indexing works. I know how search engines work.</p>	<p>I know how to look at the sender and subject to spot a spam email. I know what the potential dangers of spam email. I know why it is important to cite a source. I know how to cite a website. I know how to follow a citation to access an online source. I know the rules for creating a strong password. I know how to create a strong password using a set of rules. I know why having a strong password is important.</p>

	<p>I know what a search engine is.  I know what a search engine is used for.  I know how to access a trusted search engine.  I know to use keywords to refine my search.  I know that just because information is online doesn't mean it is true.  I know what makes a trusted web page  I know why trusted websites are important  I know how Boolean operators can affect my search results.</p>	<p>I know how to recognise changes that have been made to an original photograph.  I know how to digitally alter a photograph.  I know how to stay safe online.  I know examples of unsafe online behaviour and the possible consequences.  I know how to apply online safety rules to a given scenario.</p>
	<p><b>Vocabulary</b>  Browser, Internet, search engine, network, search results, search terms, URL, web browser, web page, website, World Wide Web (www)., Boolean operators,  Domain name, protocol, reliability, scheme, second-level domain, secure, subdomain, top-level domain, trustworthy, URL, Search Engine Optimisation (SEO), search engine results page,  Web crawler, spider, web indexing, index, search engine index, hyperlink, marketing, server, user, target audience</p>	<p><b>Vocabulary</b>  Online, spam, email, scam, virus, citation, plagiarism, copyright, passwords, personal information, photographs, editing, social media, comic.  Cite, citation, plagiarism, source, website, bibliography,  Email, spam, link, privacy, virus, scam, phishing, inbox, junk, sender, subject.  Passwords, secure, safe, account, online, private.  Posts, media, image, photography, digital, photoshop, edit, filter, apps, software, social media, adverts.</p>
<b>Year Six</b>	<p><b>How does hardware help us to communicate?</b></p> <p>I know what a computer network is and how it works.  I know the devices that connect to a computer network.  I know how to describe what the term topology means.  I know protocols are within a URL and know what they mean.  I know what packets and routing are.  I know what cloud computing is.  I know the advantages and disadvantages of cloud computing.  I know the different broadband connections used to connect to the Internet.  I know what streaming is and provide examples of types of media that are streamed online.  I know some of the different types of malware.  I know how malware can affect a computer network.  I know ways of minimising cybersecurity threats.</p> <p><b>Vocabulary</b>  Adapters, cable, clients, communicate, connections, data, devices, equipment, Internet, network, PC, printer, router, server, smartphone, switch, wireless devices.</p>	<p><b>How can I take responsibility for online safety?</b></p> <p>I know what bullying and cyberbullying are.  I know ways in which people could deal with cyberbullying.  I know why cyberbullying can be as harmful as in-person bullying.  I know how to look in the address bar of a website to check for security  I know how to identify the lock symbol in an address bar.  I know how to identify personal information.  I know why someone might have an online friendship.  I know what to do if I am asked or told something online which makes me uncomfortable.  I know how a stereotype can be harmful.  I know how to compare gender stereotypes.  I know how to identify a gender stereotype in a media message.  I know how to identify a situation I should be careful in online.  I know appropriate actions online to stay safe.</p> <p><b>Vocabulary</b>  Cyberbullying, reporting, anonymous, victim, private, personal, online messaging, gender, media, stereotype, online media, message, SMART, attachments, email, website, secure, acronym</p>

	<p>Clients, communications, data, information, network, router, signals, topology, terminator, wires.</p> <p>DNS server, HTTPS, HyperText Transfer Protocol (HTTP), IP address, Internet Service Provider (ISP), Uniform Resource Locator (URL), clients, encrypted, domain name, query string, packets, path, protocols, router, routing, scheme, server, website.</p>	
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	Programming	Creating media
<b>Reception</b>	<p>I can program a bee bot to go forward, backwards left and right</p> <p><b>Vocabulary</b> Beebot left right forwards backwards</p>	<p>I can use clicker to draw an Easter egg or flower</p> <p><b>Vocabulary</b> Tool paint pattern print colour</p>
<b>Year One</b>	<p><b>What is an algorithm?</b></p> <p>I know how to create an algorithm. I know how to record an algorithm. I know how to program a Bee-bot. I know how to create an algorithm for the Bee-bot. I know how to find the mistakes when following an algorithm. (debug)</p> <p><b>Vocabulary</b> directional language (forward, backward, quarter turn, half turn), ordering, algorithm, program, Bee-Bot, Debug</p>	<p><b>How can I use technology to combine text with photographs, graphics and drawings?</b></p> <p>I know how to use paint to draw flowers of my choice from given options. I know how to begin to paint to create a flower. I know how to open and close a programme. I know how to use a keyboard. I know how to describe my flower. I know how to add further detail to my drawing.</p> <p><b>Vocabulary</b> Monitor, display, keyboard, mouse, trackpad, system unit, headphones, switch, Launch, application, window, minimise, restore, size, move, screen, close, exit. Clicker 8, paint, tools, erase, pen, draw, fill.</p>
<b>Year Two</b>	<p><b>What is an algorithm?</b></p> <p>I know how to open the ScratchJr app and use buttons to navigate. I know how to add and remove characters and backgrounds. I know how to edit characters and backgrounds</p>	<p><b>How can I create a presentation with sound?</b></p> <p>I know the purpose of a PP presentation. I know how to open up a PP. I know how to change the background of PP</p>

	<p>I know how to describe the effects of at least 3 instruction blocks on a character.</p> <p>I know how to add and remove characters and background.</p> <p>I know how to edit characters and background.</p> <p>I know how to describe the effect of at least three instruction blocks on a character.</p> <p>I know how to position new sprites on a suitable background.</p> <p>I know how to program a car to move in Scratch Jr.</p> <p>I know how to edit the value to make the car travel further.</p> <p>I know how to change the speed of the car.</p> <p>I know how to program the car to repeat the moving instructions.</p> <p>I know how to use blocks for movement in different directions.</p> <p>I know how to use a Repeat forever block to make a continuous loop.</p>	<p>I know how to organise information into subheadings on a slide.</p> <p>I know how to create multiple slides to organise information.</p> <p>I know how to change the font on backgrounds.</p> <p>I know how to add images to PP.</p> <p>I know how to use the crop tool.</p> <p>I know how to move my image.</p> <p>I know how to add a border to my image.</p> <p>I know how to add sound to my PP.</p>
	<p><b>Vocabulary</b> ScratchJr, tablet, blocks, programs, character, background, sequence, project.</p>	<p><b>Vocabulary</b> presentation, PowerPoint, slides, layout, font, sound effects, images, save, retrieve, format, images, crop, border, undo, copy , paste</p>
<p><b>Year Three</b></p>	<p><b>How do you program a sprite?</b></p> <p>I know what an algorithm is.</p> <p>I know different types of coding blocks in Scratch and know where to find them.</p> <p>I know how to create a sequence of blocks to write an algorithm.</p> <p>I know what a loop is.</p> <p>I know how to customise repeat blocks to repeat an action a specified number of times.</p> <p>I know where in an algorithm repetition will be useful.</p> <p>I know how to customise a repeat block for a specific purpose.</p> <p>I know how to write algorithms to draw regular polygons.</p> <p>I know how to use forever loops in algorithms for a particular purpose.</p> <p>I know what happens in a repeat until loop, using the word until.</p> <p>I know how to add an Operators block into a repeat until loop.</p> <p>I know how to solve a problem by decomposing it into smaller parts.</p> <p>I know how to design, write and debug algorithms to solve problems.</p> <p>I know why loops are useful.</p> <p><b>Vocabulary</b></p>	<p><b>How do you make a branching story presentation?</b></p> <p>I know how to create a story with different outcomes.</p> <p>I know how to organise the different outcomes into different branches.</p> <p>I know how to create slide templates to match my story.</p> <p>I know how to copy the slide templates to create all the slides I need for my story.</p> <p>I know how to create the hyperlinks required from slide to slide.</p> <p>I know how to set the presentation theme.</p> <p>I know how to use slide transitions.</p> <p>I know how to use animations to introduce objects to a slide.</p> <p>I know how to create shapes.</p> <p>I know how to create a hyperlink to another slide.</p> <p>I know how to insert audio and video files (where possible).</p> <p>I know how to record audio onto a slide.</p> <p>I know how to change the audio button.</p> <p>I know how to complete slides so as to maintain the design and an effective layout.</p> <p>I know how to edit as required to maintain the design and an effective layout.</p> <p>I know how to evaluate how effectively my work meets the requirements.</p> <p><b>Vocabulary</b></p>

	<p>Game, user, loop, debug, decomposition, variable.  Block code, repeat, repetition, count-controlled.  debug, programming, sequence, test, algorithm, block, code, coding,  Loop, regular polygon, repeat, repetition,  customise, nested, customise, repeated until loop.</p>	<p>template, link, text box, title,  Object, link, hyperlink, button, shape, action  settings.  branching story, plan, link, image, picture, audio, video, Evaluate, text,  colour, image, picture,  audio, video, layout</p>
<b>Year Four</b>	<p><b>How can I use Scratch to write a maths quiz program?</b></p> <p>I know what makes a successful quiz.  I know the pros and cons of different types of quizzes.  I know the difference between open and closed questions.  I know how to create a sequence of questions using Scratch.  I know how Operators work.  I know how to use the selection ‘if...then...else...’ statements to produce different outcomes.  I know how to add and switch backdrops.  I know different ways to change backdrops.  I know how to select sprites.  I know how to add effects to a sprite.  I know how to add sounds to a sprite.  I know how to create a variable.  I know how to design a racetrack backdrop.  I know how to use Operators and Variables blocks together.  I know how to use touching edge Sensing blocks.  I know how to add sounds to my quiz.  I know how to add a second sprite to my quiz.  I know how to use Costumes to improve my quiz.</p> <p><b>Vocabulary</b>  Cons, contestant, debug, evaluate, multiple-choice, online, open and closed questions, pros, quiz, software.  Algorithm, answer, block, Boolean operators, code, conditions, command, correct, debugging, duplication, errors, incorrect, program, quiz, repetition, selection, sequence, sprite.  backdrop, control, effect, function, looks, operator, project, record, repeat, score, sensing, variable.</p>	<p><b>Can I create a range of different word documents?</b></p> <p>I know how to select, edit and manipulate text in different ways.  I know how to insert images onto a document.  I know ways to improve a layout.  I know how to select, edit and manipulate text in various ways.  I know some of the main keyboard shortcuts.  I know how to find and use the different functions of the spellcheck tool.  I know how to insert a simple table.  I know how to add and delete rows and columns.  I know how to format the borders of the cells within a table.  I know how to change the orientation of the page.  I know how to change the size of the page.  I know how to choose a relevant website to link my document to.  I know how to copy the URL that I need.</p> <p><b>Vocabulary</b>  Format, image, insert, Microsoft Word, Google Docs, poster, font, colour, type, size, align, select, folder, edit, document, webpage, copy, paste, toolbar, copyright.  Layout, object, area, bullets, numbering, insert, image, text box, select, manipulate, edit, align, features, save, wrap, spelling, spellcheck, grammar, ignore, change, ignore all, add to dictionary,  table, border, cell, shading, colour, rota, toolbar  Hyperlink, voucher, URL, format, text, images, apply, combine, insert, toolbar, tools, improve, edit, create.</p>

<b>Year Five</b>	<b>How do we control devices?</b>	<b>What makes an effective video?</b>
	<p>I know how to follow a sequence of written instructions in a flowchart.</p> <p>I know how to draw a flowchart using the correct symbols.</p> <p>I know how to connect symbols in a sequence.</p> <p>I know how to insert symbols in sequence to create a working flowchart.</p> <p>I know how to insert new symbols to modify a flowchart.</p> <p>I know how to edit symbols to modify the effect.</p> <p>I know the conventional sequence for a set of traffic lights.</p> <p>I know how to create a flowchart to program one set of traffic lights.</p> <p>I know how to edit a flowchart to control two sets of traffic lights at the same time.</p> <p>I know how to connect a decision symbol in a flowchart.</p> <p>I know how to include the use of an input.</p> <p>I know different outputs based on the status of an input.</p> <p>I know how to create a subroutine separate to a main flowchart program.</p> <p>I know how to call a subroutine from the main flowchart program.</p> <p>I know how to call multiple subroutines within a program.</p> <p>I know how to decompose a problem into smaller parts.</p> <p>I know how to use repetition to check multiple inputs.</p> <p>I know how to detect errors in a flowchart and correct them.</p>	<p>I know how to explain that video is a visual media format</p> <p>I know how to identify features of videos</p> <p>I know the features in different videos</p> <p>I know how to identify and find features on a digital video recording device</p> <p>I know how to experiment with different camera angles</p> <p>I know how to make use of a microphone</p> <p>I know how to suggest filming techniques for a given purpose</p> <p>I know how to capture video using a range of filming techniques</p> <p>I know how effective my video is</p> <p>I know how to outline the scenes of my video</p> <p>I know how to decide which filming techniques I will use</p> <p>I know how to create and save video content</p> <p>I know how to store, retrieve, and export my recording to a computer</p> <p>I know how to improve a video by reshooting and editing</p> <p>I know how to select the correct tools to make edits to my video</p> <p>I know how to make edits to my video and improve the final outcome</p> <p>I know that my choices when making a video will impact the quality of the final outcome</p> <p>I know how to evaluate my video and share my opinions</p>
	<p><b>Vocabulary</b></p> <p>Flowol, flowchart, algorithm, control, output, mimic, simulation, insert, symbol, start, stop, delay, process, decision, input, loop, subroutine</p>	<p><b>Vocabulary</b></p> <p>Video, audio, camera, talking head, panning, close up mid-range, long shot, moving subject, side by side, high angle, low angle, normal angle, Static camera, zoom, pan, tilt, storyboard, filming, review, Delete, trim, reorder, export, evaluate, share</p>
<b>Year Six</b>	<b>How can I control a game's environment?</b>	
	<p>I know how to open Kodu and load a new world.</p> <p>I know how to navigate to and from the Kodu home menu using keyboard or mouse.</p> <p>I know how to follow instructions given in the software.</p> <p>I know how to open the Kodu Game Lab and start a new world.</p> <p>I know how to add objects to a world.</p> <p>I know how to program an object to react to an event.</p> <p>I know how to plan and design the features of an original virtual environment.</p> <p>I know how to increase or decrease the size of the ground.</p> <p>I know how to use tools to smooth, raise or lower the landscape.</p> <p>I know how to decompose code into smaller parts.</p>	



	<p>I know how to write a description of code in my own words.</p> <p>I know how to use ideas</p> <p>I know how to create the shape of a race track in Kodu.</p> <p>I know how to program a character to move.</p> <p>I know how to create a finish and an end goal for a game.</p> <p>I know how to add further characters and distinguish them by colour.</p> <p>I know how to create a path for a character to follow.</p> <p>I know how to program a character to follow a path.</p>	
	<p><b>Vocabulary</b></p> <p>Kodu, world, object, tool palette, program, Track, character, start, finish, obstacle, path</p> <p>Node, bump, settings, acceleration, turning, environment, smooth, flatten, raise.</p>	<p><b>Vocabulary</b></p>

<b>Data and information</b>	
<b>Nursery</b>	
<b>Reception</b>	
<b>Year One</b>	
<b>Year Two</b>	
<b>Year Three</b>	<p>How do you organise data?</p> <p>I know how to investigate questions with yes/no answers.</p> <p>I know how to make up a yes/no question about a collection of objects.</p> <p>I know how to select an attribute to separate objects into groups.</p> <p>I know how to create a group of objects within an existing group.</p> <p>I know how to select objects to arrange in a branching database.</p> <p>I know how to group objects using my own yes/no questions.</p> <p>I know how to create yes/no questions using given attributes.</p> <p>I know how to compare two branching database structures.</p> <p>I know how to independently create questions to use in a branching database.</p> <p>I know how to create questions that will enable objects to be uniquely identified.</p> <p>I know how to create a branching database that reflects my plan.</p> <p>I know how to work with a partner to test my identification tool.</p>
	<b>Vocabulary</b>

	Attribute, value, questions, table, objects, Branching database, database, attribute, value, questions, objects, equal, even, separate, structure, compare, order, organise, attribute, information, decision tree
<b>Year Four</b>	<b>Can I use technology to gather data?</b>
	<p>I can understand what data is</p> <p>I can classify data</p> <p>I can identify ways that data might be used</p> <p>I can understand that some devices use sensors</p> <p>I can write simple programs using sensors</p> <p>I can use the BBC micro:bit to collect data</p> <p>I can explain how repetition is used when programming sensors</p> <p>I can follow design criteria to design a product</p> <p>I can write algorithms that show how sensors will be used</p> <p>I know that data can be used as a condition in selection</p> <p>I can explore the effects of changing the value of data in programs</p> <p>I can write programs that use data as a condition</p> <p>I can read and write algorithms using selection</p> <p>I can identify how a digital assistant might work</p> <p>I can write a program to use a micro:bit as a digital assistant</p>
	<p><b>Vocabulary</b></p> <p>Data, table, layout, input device, sensor, data logger, logging, data point, interval, analyse, data set, data value, import, export, logged, collection, analyse, review, conclusion.</p>
<b>Year Five</b>	<b>How do we organise data?</b>
	<p>I know how to create a database using cards.</p> <p>I know how to explain how information can be recorded.</p> <p>I know how to order, sort, and group my data cards.</p> <p>I know how to explain what a field and a record is in a database.</p> <p>I know how to navigate a flat-file database to compare different views of information.</p> <p>I know how to choose which field to sort data by to answer a given question.</p> <p>I know that data can be grouped using chosen values.</p> <p>I know how to group information using a database.</p> <p>I know how to combine grouping and sorting to answer specific questions.</p> <p>I know which field and value are required to answer a given question.</p> <p>I know how 'AND' and 'OR' can be used to refine data selection.</p> <p>I know how to choose multiple criteria to answer a given question.</p>

	<p>I know how to select an appropriate chart to visually compare data.  I know how to refine a chart by selecting a particular filter.  I know the benefits of using a computer to create charts.  I know which questions that will need more than one field to answer.  I know how to refine a search in a real-world context.  I know how to present my findings to a group.</p> <p><b>Vocabulary</b>  Database, record, field, graph, chart, axis, compare, filter, value, search, criteria, chart, presentation</p>
<b>Year Six</b>	<p><b>How can I organise and analyse information?</b></p> <p>I know how to collect data.  I know how to structure my data.  I know what an item of data is.  I know appropriate formats for a cell.  I know how to apply an appropriate format to a cell.  I know which data types can be used in calculations.  I know how to construct a formula in a spreadsheet.  I know that changing inputs changes outputs.  I know how to calculate data using different operations.  I know how to create a formula which includes a range of cells.  I know how to apply a formula to multiple cells by duplicating it.  I know how to use a spreadsheet to answer questions.  I know why data should be organised.  I know how to apply a formula to calculate the data I need to answer questions.  I know how to produce a chart.  I know how to use a chart to show the answer to a question.  I know when to use a table or chart.</p> <p><b>Vocabulary</b>  Data, collecting, table, structure, spreadsheet, Cell, cell reference, data item, format, Formula, calculation, data, spreadsheet, input, output, duplicate, sigma, Propose, question, data set, data, organised, formula, Chart, evaluate, results, comparison, questions, software, tools, data</p>