	Computing Overview		
	Autumn	**Spring**	**Summer**
EYFS	**Personal, Social and Emotional Development (PSED)** • I can show resilience and perseverance in the face of a challenge. • I know and talk about the different factors that support my overall health and wellbeing: -sensible amounts of 'screen time'. **Physical Development** • I can develop their small motor skills so that I can use a range of tools competently, safely and confidently. **Expressive Arts and Design** • I can explore, use and refine a variety of artistic effects to express my ideas and feelings.		**PSED ELG** • I can be confident to try new activities and show independence, resilience and perseverance in the face of challenge. • I can explain the reasons for rules, know right from wrong and try to behave accordingly. **Expressive Arts and Design ELG** •I can safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.
Year 1	**E-Safety** I can use technology safely and respectfully. I can say what information is personal and should not be shared online, with support. I can understand that I should tell an adult if I see something online that is inappropriate or hurtful. **Multimedia** I can type using a keyboard. I can use a camera or recording device, with support. I can use a sound recorder or on screen recorder to collect and store information as sound. I can produce text on screen and make changes to make it clear. I can use a mouse/trackpad to move and place items accurately on a screen. I can use technology purposefully to create, organise, store, manipulate and retrieve digital content. I can save and retrieve work, with support.	**Programming** I can recognise common uses of information technology beyond school. I can program a bot by giving single commands with an immediate outcome. I can use the appropriate keys or commands to make a virtual or floor robot go forward, backward, left and right. **Data/Graphing** I can take a screenshot. I can use a suitable on-screen program to represent information with pictures. I can use technology purposefully to create, organise, store, manipulate and retrieve digital content. I can use a graph presented on screen to answer questions. I can save and retrieve work, with support.	**Paint/Draw/Photo Editing** I can use a mouse/trackpad to move and place items accurately on a screen. I can take a screenshot. I can use a camera or recording device, with support. I can use technology purposefully to create, organise, store, manipulate and retrieve digital content. I can use a range of tools purposefully to create and alter the appearance of an image. I can save and retrieve work, with support. **Data/Graphing/Research/Multimedia** I can take a screenshot. I can use a mouse/trackpad to move and place items accurately on a screen. I can type using a keyboard. I can produce text on screen and make changes to make it clear. I can control a resource to access information. I can use a camera or recording device, with support. I can use a sound recorder or on screen recorder to collect and store information as sound. I can use technology purposefully to create, organise, store, manipulate and retrieve digital content. I can use a suitable on-screen program to represent information with pictures.

			I can save and retrieve work, with support.
Year 2	**E-Safety and Internet Use** I can follow and understand school rules for staying safe online. I can say what information is personal and should not be shared online, with support. I can enter data into a computer/simulation game. I can navigate a website using links. I can find a website by following links set up by the teacher, by using Favourites or by typing into the address bar. I can use a search engine to search for given information to answer questions, sorting by text, pictures, sound and video. **Word Processing** I can save, print and retrieve work with support. Add and edit text, considering style, colour and layout of font. I can make use of basic editing skills e.g. shift key and Caps Lock for uppercase, question marks and spaces after punctuation. **Control & Programming** I can give control devices instructions that contain numerical data (e.g. move 2 steps etc.) I can program a 'bot to follow a pre-planned sequence by giving single commands with an immediate outcome.	**Control & Programming** I can predict the behaviour of a virtual or floor robot from a sequence of instructions. **Multimedia – Images** I can use different effects such as symmetry and filters to manipulate images or make changes. Select appropriate paint and image tools within a paint package to create pictures that communicate their ideas. I can transfer images between devices or Apps, with help. I can use still and video cameras independently to capture still images and video footage. Sequence and arrange pictures or video clips for a purpose. I can create simple animations, with support, using suitable software. **E-Safety**	**Multimedia – Sound** I can create short musical phrases to suit a purpose, focusing on types of sound and/or rhythm using digital technology. I can select and record musical phrases, sound-effects or voice-overs to enhance multimedia work. **Internet Use and E-Safety** I can make digital comments as an individual or as a class on other people's work. Be involved in the process of sharing work to the school VLE as a small group. **Databases/Graphing** I can use different types of graphs to represent data collected. I can enter data into graphing software and choose the type of graph that is most appropriate to present data. I can enter data accurately to provide the answers to questions. I can search a pre-prepared database as part of a group, constructing questions and suggesting plausible answers. I can perform sorting and grouping activities to find answers to questions. **Control & Programming** I can predict a sequence of instructions, record it by sequencing cards or using an agreed set of symbols, and test the sequence, amending if necessary.
Year 3	**Online communication and E Safety** **Word Processing** (Writing Stone Age information on Word) I can work within the internet safety rules, understand why they are in place and abide by them. I can explain how to keep safe and the importance of being polite online.	**Paint/Draw/Photo editing/Animation** **Word processing** (Filming a story of Traction Man) I can use editing tools in a paint package for a specific purpose. I can build up images by selecting, copying and pasting within the image.	**Internet Research and Sound/Podcast/Composition** **E-safety** **Word Processing** **Photo Editing** (Use online encyclopedia and research to make podcast about plastics)

	I can save work in a way that means it is easy to remember and retrieve. I can use font sizes and effects appropriately and text boxes, columns, borders, WordArt. I can begin to use more than two fingers to enter text. **Word Processing and Multimedia** **Online communication** **Internet Research** (Make a presentation about Lighthouses after our trip to Leasowe Lighthouse.) I can independently select and import graphics and sounds from digital cameras and tablet devices, graphics packages, shared areas and the Internet and combine with text. I can use font sizes and effects appropriately and text boxes, columns, borders, WordArt. I can cut, copy and paste between applications and use delete, insert and replace. I can use spell check. I can begin to use more than two fingers to enter text. I can begin to upload some work independently to the drive. I can work within the internet safety rules, understand why they are in place and abide by them.	I can sequence still images and video and use simple editing techniques to create a presentation. I can begin to upload some work independently to the drive. I can work within the internet safety rules, understand why they are in place and abide by them. I can use font sizes and effects appropriately and text boxes, columns, borders, WordArt. I can cut, copy and paste between applications and use delete, insert and replace. I can use spell checker. I can begin to use more than two fingers to enter text. **Programming and Control** **Internet Safety** **Animation** I can plan and enter a sequence of instructions for a 'robot' to achieve specific outcomes. I can debug sequences where necessary. I can use 'repeat' to achieve specific solutions to tasks. I can begin to use 'if', 'when' and 'else' to solve specific problems. I can begin to use pre-defined variables to alter the outcomes from a program. I can use 90 degree and 45 degree turns I can sequence still images and video and use simple editing techniques to create a presentation. (Alex the robot app for maps) I can begin to upload some work independently to the drive. I can work within the internet safety rules, understand why they are in place and abide by them.	Use a range of techniques to navigate a given site. Develop key questions to search for specific information to answer a problem. Use music software to organise and reorganise sounds. Locate, record, save and retrieve sounds in multimedia software. Begin to layer sounds using music composition software. I can work within the internet safety rules, understand why they are in place and abide by them. . **Spreadsheets, Modelling, Simulations and Data logging. Database and Graphing.** (I can use data logger 2 graph to make a bar chart.) I can collect information with a data logger/recorder in real time. I can interpret graphs created by a data logger or information from a datalogger and make predictions. I can begin to upload some work independently to the drive. I can work within the internet safety rules, understand why they are in place and abide by them. **Control** **E safety** Music curriculum to do Incredibox to combine and layer various musical beats.) I can use music software to organise and reorganise sounds. I can locate, record, save and retrieve sounds in multimedia software. I can begin to layer sounds using music composition software. I can begin to upload some work independently to the drive. (Make a Viking Village)
Year 4	**E-safety** I understand and I can talk about how to use the Internet safely. I know that the internet has potential dangers and I can explain how to keep yourself safe online. **Music composition** I can layer sounds using music composition software.	**Paint/Draw/Photo editing/Animation/Video** I can import a photograph, explore the effects which can be created and use a range of visual effects such as filters, hues and painting over photographs to give different effects. I can sequence and edit video footage and still images once transferred from a digital camera to computer.	**Spreadsheets** I can identify the key features of a spreadsheets (rows, columns and cells) I can reference cells in a spreadsheet. I understand that spreadsheets perform calculations. I can enter data into a spreadsheet, change data and observe changes in results.

	Evaluate and re-record sound recordings where appropriate. **Word processing** I can evaluate a range of electronic multimedia appropriate to task e.g. website, photostory, leaflet and recognise key features of layout, design and presentation. I can plan the structure and layout of a document/presentation, with support. When typing, I can begin to hold two hands over different halves of the keyboard and use more than two fingers to enter text. **Database** I can understand that 'yes/no' questions can be used to divide a set of objects into subsets and that a sequence of 'yes/no' questions can identify an object. I can create and use a branching database to organise, re-organise and analyse information. **Internet Research** I can understand that content on the internet can be located efficiently but is not always relevant. I can use keywords for effective Internet searches. I can select relevant information (pictures, text, sound and video) to use in other software.	I can add text, sound effects and other graphic effects to video. I can create a stop-frame animation using a camera with built-in stop motion software or an on-screen stop animation package. I can evaluate and improve digital work with a view to audience and purpose. **Control and Programming** I can use the 'repeat' and 'repeat until' command/block to program a 'bot more efficiently. I know that groups of instructions can be named as a procedure. I can use and change a pre-written procedure. I know that procedures can call on other procedures. I can begin to predict, program, test and amend longer sequences of linked instructions to achieve an intended objective.	I understand that computing can create graphs for different purposes; some are more appropriate and easier to read than others. I can enter data into a graphing package and use it to create a range of graphs, and to interpret data. **Online communication** I can upload work to a learning platform and know that it is important to consider the quality of work before posting to be seen by others. I can use at least two online communication methods (e.g. online discussion, surveys, quizzes, blogs, wikis, shared online folders, web quests) through the Learning Platform in topic work. I can use the school VLE to give useful and polite feedback to others on their work. I understand that the school's Learning Platform is a safe enclosed environment, but it is important to keep passwords and other personal information secure.
Year 5	**Internet Safety** **Coding** **Internet Research** **Online Communication** I can search the internet for specific information using tools such as Google Advanced Search (Boolean searches). I can skim read and sift information found online. I can check information for accuracy. I can identify irrelevant, biased, implausible and inappropriate information. I can use hyperlinks to trail an idea.	**Internet Safety** **Coding** **Spreadsheets** I can understand what variables and procedures are in real life and I can create them within a computer program to store and retrieve data. I can think logically that when 'x' happens 'y' is the result and show this using code, flowcharts, diagrams or explanations. **Internet Safety** **Coding**	**Internet Safety** **Coding** **Photo/Video Editing** I can select, copy and paste within and between photographs. I can explore "airbrush" techniques to improve photographs, such as used in magazines with celebrities. I can use different filming techniques and camera angles e.g. zoom, panning, wide shot etc. to create different mood/perspective. I can plan a video or animation by drawing a storyboard.

	I can use a range of search engines and select the most appropriate based on the tools they provide (e.g. Google or Bing). I can use information from the internet to make notes and present in a form of their choosing, without using copied/pasted text. I can save media from the internet to be uploaded to an online platform. I can upload informative and interesting content to a VLE including various media. I can initiate and take part in collaborative learning using a variety of methods e.g. email, discussions, quizzes, surveys, blogs, wikis, WebQuests, video conferencing. I can talk about how to use the social media and internet search engines safely. I can develop and understand rules for personal internet safety. can develop and understand code of conduct for online collaboration and explain what to do in cases of cyberbullying. I can present findings to a specific audience. **Internet Safety** **Coding** **Programming** I can use "when" and "if" commands to create responses. I can use "say" commands to give information. I can test and debug regularly. I can program and explain what happens when more than one variable changes. I can use "and", "or" and "not" blocks to change responses and understand what they do. I can program responses to inputs from sensors such as Makey Makey or Picoboards. I can understand when to use "repeat", "repeat until" and "forever if" loops to make programs shorter and more efficient and I can use them (understanding the differences between them). I can understand what 'events' are, such as mouse clicks and broadcasts, and use them efficiently within programs to start and stop scripts.	**Graphing** I can identify a problem which can be solved by collecting data and to identify which data to collect. I can make predictions for this investigation and understand how to make it a fair test. I can carry out the investigation, ensuring efficiency and accuracy. I can organise data by designing fields and records in a database. I can interpret results, using a range of searches and graphs, draw conclusions and analyse the effectiveness of the technology. I can draw conclusions from data and present findings to a specified audience. I can justify reasons for their choices and explain why other methods were not appropriate. I can design questions using keywords to search a large pre-prepared database. I can search using "greater" and "less than". I can use graphs to provide supporting evidence for their conclusions. I can check for accuracy by checking data and looking at graphs. I can present results of database research.	I can film, create, edit and refine to ensure quality; present to an audience. **Internet Safety** **Coding** **Word Processing** I can format text to indicate relative importance. I can justify text where appropriate. I can cut and paste between applications. I can delete/insert and replace text to improve clarity and mood. I can make corrections using a range of tools (e.g. spell check, find and replace). I can develop confidence using both hands when typing. I can select appropriate software for the task/audience. I can plan the structure and layout of multimedia presentations. I can evaluate and select suitable information and media from a range of electronic resources. I can use a multimedia authoring program to organise, refine and present information for a specific audience. I can create a range of hyperlinks to produce a non-linear presentation. I can use thorough peer assessment and self evaluation, make suitable improvements
Year 6	Online Communication (E-Safety)Play, like, share (CEOPs) **Keeping safe online** I can understand how to behave online. I can talk about how to use social media and internet search	**Animation and Photo editing** I can plan a video or animation by drawing a storyboard Film, create, edit and refine to ensure quality;present to an audience.	**Sound, podcasting and composition** I can create a retelling of a Greek myth as a radio show. I can create a video comparing life in Sparta and Greece

engines safely.
I can develop and understand rules for personal internet safety.
I can develop and understand code of conduct for online collaboration and explain what to do in cases of cyberbullying.

Photo editing

I can select, copy and paste within and between photographs.

I can explore "airbrush" techniques to improve photographs, such as used in magazines with celebrities

I can use different filming techniques and camera angles e.g. zoom, panning, wide shot etc to create different mood/perspective

Internet Research
I can search for relevant information.
I can skim and Search.
I can use a range of search engines.
I can collect and present information
I can search the internet for specific information using tools such as Google Advanced Search (Boolean searches).
I can skim read and sift information found online.
I can check information for accuracy.

Online communications (E-Safety)
I can use a range of search engines and select the most appropriate based on the tools they provide (e.g. Google or Bing).
I can use information from internet to make notes and present in a form of their choosing, without using copied/ pasted text.

Handing Data - Datalogging

 I can identify a problem which can be solved by collecting data and to identify which data to collect.
I can make predictions for this investigation and understand how to make it a fair test.

Handling Data - Databases

I can organise data by designing fields and records in a database.
I can interpret results, using a range of searches and graphs, draw conclusions and analyse the effectiveness of the technology.

 I can design questions using keywords, to search a large pre-prepared database.

I can search using greater and less than.

Coding
I can use "when" and "if " commands to create responses.
I can use "say" commands to give information.
I can test and debug regularly.
I can program and explain what happens when more than one variable changes.
I can use "and", "or" and "not" blocks to change responses and understand what they do.
I can program responses to inputs from sensors such as Makey Makey or Picoboards.
I can understand when to use "repeat", "repeat until" and "forever if" loops to make programs shorter and more efficient and I can use them (understanding the differences between them).
I can understand what 'events' are, such as mouse clicks and broadcasts, and use them efficiently within programs to start and stop scripts.
I can understand what variables and procedures are in real life and I can create them within a computer program to store and retrieve data.
I can think logically that when 'x 'happens 'y' is the result and show this using code, flowcharts, diagrams or explanations.

I can select and edit sounds, text, movie clips and other effects to suit purpose and audience
I can collect sounds from a variety of sources (sound editing software, online, digital sound recorder)
I can import sounds, (recorded vocals, samples (digital sound files) and recordings from real instruments) into sound editing software
I can layer and edit sounds
I can save multimedia work as a web compatible format for uploading and podcasting; share online

Handling Data - Spreadsheets

I can use spreadsheets to solve complex calculations
II can draw conclusions from data and present findings to a specified audience.
I can justify reasons for their choices and explain why other methods were not appropriate.
I can present results of database research.

	I can carry out the investigation, ensuring efficiency and accuracy. I can use ICT to measure sound, light or temperature using sensors and interpret the data. I can use graphs to provide supporting evidence for their conclusions.I can check for accuracy by checking data and looking at graphs. **Multimedia: (including animation)** I can use appropriate software – identifying suitable programs and information e.g. Adobe Spark, 2-Animate, imovie. I can plan the structure and layout of a multimedia presentation. I can evaluate and select suitable information and media from a range of electronic resources I can use a multimedia authoring program to organise, refine and present information for a specific audience I can create a range of hyperlinks to produce a non-linear presentation I can use thorough peer assessment and self evaluation, make suitable improvements		