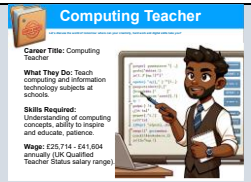
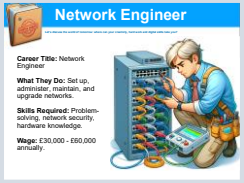
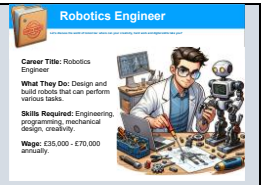
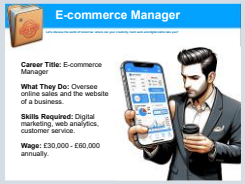
Seamer and Irton CP School
Progression of knowledge and skills in Computing
Computing systems and networks: Autumn 1

The Computer Systems and Networks strand is taught once a year, building progressively from one-year group to the next, with subject specific knowledge introduced at age-appropriate points.

Throughout each half term, pupils are exposed to a range of computing careers linked directly to the cultural capital of our pupils and highlighting that computing can be aspirational and accessible to all. Visits by a diverse range of adults, based within the local community, will provide pupils with clear links to STEM career opportunities. Equity, diversity and inclusion are addressed through highlighting pioneers and influencers who represent a broad and inclusive range of characteristics, alongside those from differing socio-economic and cultural backgrounds, these are annually reviewed to ensure our pupils are exposed to relevant and meaningful experiences.

	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Computing systems and networks: **Autumn 1**	**Introduction to technology** **Show and Tell**: Introduce different types of technology devices (e.g., tablets, smartphones). **Exploring Classroom Technology**: Identify technology in the classroom and discuss its uses. **Simple Network Activities**: Demonstrate how devices can be connected (e.g.,	Computing systems and networks - Technology around us **Recognising technology and using it responsibly** No. of lessons: 6 Overview: Unit Guide Skills and Concept Progression: Learning graph	Computing systems and networks - IT around us **Identifying IT and how its responsible use improves our world in school and beyond** No. of lessons: 6 Overview: Unit Guide Skills and Concept Progression: Learning Graph	Computing-systems-and-networks-connecting-computers **Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks.** No. of lessons: 6 Overview: Unit Guide Skills and Concept Progression: Learning Graph	Computing systems and networks – The Internet **The internet Recognising that the internet is a network of networks including the WWW, and why we should evaluate online content.** No. of lessons: 6 Overview: Unit Guide Skills and Concept Progression: Learning Graph	Computing-systems-and-networks-sharing-information **Recognising IT systems in the world and how some can enable searching on the internet.** No. of lessons: 6 Overview: Unit Guide Skills and Concept Progression: Learning Graph	Computing-systems-and-networks-communication **Exploring how data is transferred by working collaboratively online.** No. of lessons: 6 Overview: Unit Guide Skills and Concept Progression: Learning Graph

	using pretend cables or wireless connections) ***EYFS Framework Link:*** *Communication and Language (Listening and Attention, Understanding), Understanding the World (Technology)*						
Vocabulary **Glossary available** Primary computing glossary - Teach Computing		technology, computer, screen, space bar, mouse, keyboard, safety, click, drag, responsibly	Information technology (IT), computer, barcode, scanner/scan	digital device, input, process, output, program, connection, network	Network Router, Network Security, Network switch, Server Wireless access point (WAP), Browser, World Wide Web, Content, Links, Files, Download, Sharing, Ownership, Permission, Information	System, Connection, Digital, Input, Process, Output, Protocol, Address, Chat, Collaboration, IP Address	Search Engine, Refine, Index, Web Crawler, Ranking, Links, Searching, Selection, Communication, Public, Private, SMS, Blog, World Wide Web
Software		untitled.png - PaintZ	Google slides OR Can be delivered unplugged, or converted to Microsoft PPT	untitled.png - PaintZ	Google slides OR Can be delivered unplugged, or converted to Microsoft PPT	Any device with access to the internet	Free Online Slide Presentation: PowerPoint | Microsoft 365 Padlet:
Careers Education Including links to Equity,		**Female Pioneer:** **Hedy Lamarr** - Inventor of	**Careers Focus**	**Female Pioneer:** **Radia Perlman** - Inventor of the	**Careers Focus**	**Female Pioneer:** **Sophie Wilson** Designed the Acorn Micro-Computer,	**Careers Focus**

Diversity and Inclusion		frequency-hopping spread spectrum.  **Book to read** Hedy Lamarr (93) (Little People, BIG DREAMS) by Frances Lincoln Children's Books	  	spanning tree protocol.  [Radia Perlman and beginnings of the Internet | Hidden Heroes (netguru.com)]	  	which led to the development of ARM architecture used in most mobile devices today.  [Sophie Wilson: Chip Design | Teaching London Computing: A RESOURCE HUB from CAS LONDON & CS4FN]	 
Local Community experts (Visitors and visits) Supplemented by STEM ambassador visits and online opportunities linked to the termly focus as and when available							