Computing Whole School Overview 2021-22

Pupils will be taught…

	Autumn Term	Spring Term	Summer Term
Year 1	**Logging in to the system** **Toys** • Images on 2CASS – sneaky programming • Robot building • Lego building – Brick challenges, transfer to computer • Beebot control	**Animals** **Digital Art** • Introduction to the Purplemash platform • Digital Literacy using Purplemash platform. • Desktop publishing related to topic work • Digital Art making linked to key artists	**Games Making** **Stem Challenges** • Continuing with Purplemash platform • Games making using 2DIY • Games linked to Topic work • Stem based challenges. Hands on building and making. Lego/card/outdoors • Lateral thinking exercises
Year 2	**Local Area** **Online Learning Platforms** Local Area – • Manningham Mills. Weaving algorithms, textile industry. • Clicker 7 – Family trees • Maps – Directions home, follow simple instructions Great Fire of London • Pupils will use different aspects of digital media when looking at this topic. • This will include 2simple software, paint.net and purplemash	**Cold Places** **Data Logging** • Data collecting using data loggers. • Creating simple databases. • Editing databases using Purplemash Hot and Cold – Digital media • Creating/manipulating and saving content based on the class text 'Where the Wild Things Are'. Non-Chron reports on animals and beasts in a jungle, how we use a computer to create interesting settings • Minecraft – Igloos	**Coding Introduction** **Seaside Topic Work** Seaside – Digital Media • Using images and themes from the classroom and visit pupils are to create/manipulate/edit/save/load work • This will include 2simple software, paint.net and purplemash Coding Intro • Using code.org to introduce coding. • Classes set up • Certificate at the end

Year 3/4	**Scratch Introduction** **Topic/Online Learning Platform** • Scratch Logons • Intro activities • Art work • Simple games • Topic work • Stone age related • Using search engines • Purplemash logins • Using the email system	**Hello Ruby** **STEM Unplugged Learning** • Unplugged computing • Exploring the inside of a computer • Unplugged algorithms • Exploring the internet and how it works • Using coding and computers to create circuits. • Paper circuits to make torches • Makey Makey introduction • Simple challenges	Egypt Topic Work Digital Art • 3d modelling - magicavoxel • beetleblocks - coding and art • 3dprinting • Cartouche building • Hieroglyphics • Using code to create art • Paint.net • Google Arts and Culture activities
Year 5	**Scratch Introduction** **Local Area Topic Work** • Scratch Logons • Intro activities • Art work • Simple games • Data collecting from school area • Building databases • Office 365 intro • Desktop publishing	**Makey Makey** **Women in Tech** • Intro to the device • What does conductive mean? • Music making • Games making • Maker Mindset challenges • Detailed look at how women have influenced the world of STEM • Grace Hopper, Ada Lovelace, Katherine Johnson, Mae Jemison, Annie Easley • Desktop publishing, office 365 • Sway • Quiz/forms making	**3D Modelling** **Space** • Sketchup/TinkerCAd/ Magicavoxel • Links to numeracy for shape making • Using modelling to create space stations/ships • 3dprinting work • Using the internet to research information • Webpage building • Simple HTML coding to present work • Weeble/Wordpress possibilities

Year 6	**Microbit** **Networks and Computing** • Networking topologies • Packet Tracer digital homes • Internet vs www • Impact of the internet on local communities, school, fake news, social media • Sending and transferring data packets • Independent Build challenges • Zip halo light rings – Christmas decorations • LED Light strips – Create wearables • Makecode activities • Adapt and use scroll:bit	**Music Making** **Women in Tech** • creating marble mazes • digital on magicavoxel, create on 3d printer • build in cardboard • connect makey makey for sounds. • Sonic Pi – Text coding • Makey Makey – Guitars • Makey Makey – Sound bar • Microbit – Hack headphones	**SATS Revision/ Retro Gaming** **Text Based Programming Languages** • Time for sats intervention groups and revision on the PCs. • Retro gaming unit as a stress relief. Well being! • Gaming competitions mixed with history of computers and hardware activities • Moving the pupils to text-based programming • CodeCombat • Micro:bit – Simple JavaScript challenges.