

 S' George's	 Year 3	Mid- Term Plan: Computing	Term: Autumn 1	C O D E
Unit Title: Internet Safety and Coding				
Key Themes / Vocabulary: Safety, passwords, document, copy, paste, font, bold, italic, underline, minimise, maximise, animation, onion skin, frame		Cross Curricular Links: SMSC – Keeping ourselves safe		
Overview: ICT – Logging on, internet safety and digital literacy. Introduction to block coding, learning key coding language and basic coding skills.				
Standards: CSTA (Level 1A/1B) 1A-NI-04: Explain what passwords are and why we use them... 1B-NI-05: Discuss real-world cybersecurity problems and how personal information can be protected. CSTA (Level 1B) 1B-AP-08: Compare and refine multiple algorithms for the same task. 1B-AP-15: Test and debug (identify and fix errors) a program or algorithm to ensure it runs as intended. 1B-AP-10: Create programs that include sequences... 1B-AP-10: Create programs that include... loops. 1B-AP-11: Decompose problems into smaller, manageable subproblems. 1B-AP-12: Modify, remix, or incorporate portions of an existing program into one's own work. ISTE Standards: 1.2.a Digital Citizen: Students manage their digital identity... and make safe, legal and ethical decisions. 1.1.d Empowered Learner: Understand fundamental concepts of how technology works. 1.5.c Computational Thinker: Break problems into component parts... to facilitate problem-solving. 1.6.b Creative Communicator: Create original works... into new creations. 1.5.d Computational Thinker: Understand how automation works and use algorithmic thinking...				

1.4.a Innovative Designer: Know and use a deliberate design process for generating ideas.

SMSC KPIs

To recognise the benefits and challenges of using the internet including identify safety rules, and the importance of rationing time, to help minimise the risk when using digital devices.

To begin to consider how online actions and behaviours impact others, including the importance of keeping information private.

To understand why age restrictions apply to social media, games, and other media.

To understand that not everything online is true and begin to explain how to assess the reliability of online information and sources.

To explain how to report harmful digital content and concerns regarding online interactions.

To describe how online communication differs from in-person communication, including how and why people may behave differently online.

To know ways to keep online relationships safe and respectful, and recognise the risks of online behaviour, including people pretending to be someone they are not.

To know how to assess online friendships, including having an awareness of risks associated with people they have not met.

To understand the internet can sometimes be a negative place due to abuse, trolling, bullying, and harassment.

To understand rules for online safety, including how to recognise risks, harmful content and contact, and how to report1 incidents.

1e.g. school, home, or other sources such as Kanner-Jugendtelefon (KJT)

Week / Lesson	Weekly Overview
ICT Lesson 1	ICT room rules Keeping our passwords/information safe and why it is important. Logging on successfully. Setting our password and introduction to teams / typingclub.
ICT Lesson 2	Typing club/ Starting to use code.org / introduction to coding video and basic coding skills.
ICT Lesson 3	Developing code.org and introducing debugging
ICT Lesson 4	Developing coding and further developing debugging.
ICT Lesson 5	Using code.org to draw
ICT Lesson 6	Developing drawing and angles on code.org
ICT Lesson 7	Developing drawing and angles on code.org
ICT Lesson 8	Using our coding skills from code.org on pencil code.

Week / Lesson	Learning Goal and Success Criteria	Key questions	Teaching input and learning opportunities <i>Including lesson structure, key vocabulary and questioning</i>	Differentiation / Universal design <i>e.g. support, scaffolding and challenge, focus groups</i>	Resources
ICT Lesson 1	UK Nat. Curriculum "Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour." CSTA (Level 1A/1B) 1A-NI-04: Explain what passwords are and why we use them... 1B-NI-05: Discuss real-world cybersecurity problems and how personal information can be protected. ISTE Students 1.2.a Digital Citizen: Students manage their digital identity... and make safe, legal and ethical decisions.	❖ "Why do we need a password, and what might happen if someone else used yours?" (Addresses 1A-NI-04 and UK Safety). ❖ "When we log in, where does the computer 'check' to see if our password is correct?" (Addresses UK Networks—concept of a server). ❖ "Is it safe to share your password with your best friend? Why or why not?" (Addresses ISTE 1.2.a).	0–10 Minutes Students log onto their assigned computer workstations with teacher support and navigate to the typing warm-up link directly on the class website (ndovu.org.uk/type/). Pupils complete a 10-minute warm-up focusing on finger positioning and keyboard familiarity while typing core vocabulary (<i>password, server, security, log in</i>). Circulate around the room to assist students needing log-in support. 10–35 Minutes Gather the whole class to explain physical ICT room rules (no liquids, workstation tidiness, logging off properly). Draw a diagram on the whiteboard demonstrating how a student PC connects across the network to the locked "School Server" box, illustrating how a password acts as a unique digital key to that box. Direct pupils to complete the embedded interactive widget on the web page. Pupils work through the slides: confirming room rules, answering the server connection prompt, testing sample password choices, and changing their initial temporary password to match their green IT sheet accurately. Once completed, students test logging out and logging back in, then click "Download Login & Security Verification Report" to save their evidence into their student folder. 35–50 Minutes Students return to ndovu.org.uk/type/ to practice touch typing skills and improve speed and accuracy. Teachers and teaching assistants rotate to support pupils with hand placement, key locations, and posture.	Teacher to assist as needed. More able pupils to support nearby peers. Consider seating plan or ICT buddy system.	Log in details

			50–60 Minutes Lead a whole-class plenary reviewing the key questions: <i>Why do we need passwords?</i> and <i>Where does the computer check when we log in?</i> Perform a structured exit ticket where students explain why passwords must remain private before guiding pupils through a secure account log-off procedure. Ensure all workstations and chairs are left clean and tidy.		
ICT Lesson 2	UK Nat. Curriculum "Understand what algorithms are... and that programs execute by following precise and unambiguous instructions." CSTA (Level 1B)1B-AP-08: Compare and refine multiple algorithms for the same task. ISTE Students1.1.d Empowered Learner: Understand fundamental concepts of how technology works.	❖ "If I tell the 'robot teacher' to 'walk forward' without telling them to 'turn' first, what will happen?" (Addresses UK Sequence/Logic). ❖ "What is the difference between an <i>algorithm</i> (the plan) and the <i>code</i> (the computer language)?" (Addresses 1A-AP-08). ❖ "Why does the order of our instructions matter?" (Addresses CSTA 1A-AP-10).	0–10 Minutes Students log onto their assigned computer workstations and open the typing warm-up link directly on the class website (ndovu.org.uk/type/). Pupils complete a 10-minute warm-up focusing on finger positioning and keyboard familiarity while typing core online safety and coding vocabulary (<i>block, report, friend, trusted adult, algorithm, code</i>). Circulate around the room to assist pupils needing log-in support and to monitor proper touch-typing posture. 10–35 Minutes Gather the whole class to introduce <i>Play Like Share</i> Episode 1 ("Block Him Right Good, Alfie") projected on the main display or embedded on the website page. Watch the video together, drawing attention to how Alfie handles an uncomfortable online interaction with an unknown gamer and how Sam's public video receives unexpected comments from strangers. Direct students to launch the "Interactive Safety Studio" widget on the website. Working individually or in pairs, pupils answer the comprehension questions regarding Alfie's problem and his three key actions (not replying, telling a trusted adult, and blocking/reporting). Pupils then complete the "Being Kind Online" section by writing positive descriptive words for Ellie, Alfie, and Sam, reflecting on how online comments impact others. On Slide 3, pupils	Inclusion: TA to support where necessary.	Resources: Access to ipads and seesaw.

			use the integrated drawing canvas to design an "Online Kindness Badge" or safety shield. Once completed, pupils click "Download Safety Report & Poster" to save their HTML assessment summary and drawing into their personal network folder. 35–50 Minutes Transition the class to the introductory coding activity. Direct students to click the embedded Code.org sign-in button on the webpage ([https://studio.code.org/users/sign_in] (https://studio.code.org/users/sign_in)). Explain that the teacher will provide each student with their secret 6-letter section code or picture log-in card. Once logged in, guide students through their first block-based coding puzzles (such as Course x / Angry Birds levels). Introduce the core concept of an algorithm (a set of precise, step-by-step instructions for a computer to follow) and encourage pupils to work through the levels logically, testing and debugging their code when their character does not reach the goal. 50–60 Minutes Conclude the lesson with a whole-class verbal Exit Ticket asking: <i>What three things should you do if an unknown person tries to chat with you online or makes you feel uncomfortable?</i> (Ignore/Don't reply, Block, and Tell a trusted adult). Oversee a structured account log-off procedure for both Code.org and the workstation PC, ensuring all desk spaces, headphones, and chairs are left clean and tidy before exiting the suite.		
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ICT Lesson 3	UK Nat. Curriculum "Use logical reasoning to predict the behaviour of simple programs." "Use logical reasoning to detect and correct errors (debug)." CSTA (Level 1B)1B-AP-15: Test and debug (identify and fix errors) a program or algorithm to ensure it runs as intended. ISTE Students1.5.c Computational Thinker: Break problems into component parts... to facilitate problem-solving.	❖ "The bird hit the wall! Can you spot exactly <i>which</i> block caused that mistake?" (Addresses UK Debugging and 1A-AP-14). ❖ "Before you press 'Run', can you tell your partner what you <i>think</i> the bird will do?" (Addresses UK Prediction). ❖ "Is it okay to make mistakes in coding? What do we learn from them?" (Addresses ISTE 1.1.c - feedback/improvement).	0–10 Minutes Students log onto their assigned computer workstations and navigate directly to the typing warm-up link on the class website (ndovu.org.uk/type/). Pupils complete a 10-minute touch-typing practice session focused on correct finger positioning and keystroke accuracy while typing core computing and online safety terms (<i>permission, privacy, sharing, trust, debug, algorithm</i>). Circulate to assist pupils needing log-in support and monitor hand placement. 10–35 Minutes Gather the class to watch <i>Play Like Share</i> Episode 2 ("Who's Magnus?") projected on the main display or embedded on the website page. Discuss how Sam making Megan's baby photo public caused anger and retaliation, and explore why Ellie turning to Magnus—an online stranger—was unsafe. Direct students to launch the "Interactive Safety Studio" widget on the website. Working individually or in pairs, pupils answer the comprehension questions regarding Megan's photo, Ellie's choice to confide in Magnus, and the importance of turning to real-life trusted adults. Pupils then complete Slide 2 ("What Is Okay to Share?"), evaluating three distinct scenario prompts regarding photo permission and private data safety. On Slide 3, pupils use the integrated drawing canvas to design an "Ask Before You Share" badge or a "Trusted Adult" shield. Once completed, pupils click "Download Episode 2 Safety Report" to save their HTML assessment summary and drawing into their personal network folder. 35–50 Minutes	Inclusion: HA/MA LA The course allows all children to progress and gives scope for the children with a quick grasp of this to push themselves whilst teacher support and peer support can help those having a few initial difficulties.	Resources: Access to the computer suite and the children will need login cards. In theory this can also work on the iPads but the speed of the connection meant this didn't work properly on the previous attempt. All videos are in the corresponding folder on teams / sharepoint.
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			Transition the class to the main coding activity on Code.org. Direct students to click the embedded sign-in button on the webpage ([https://studio.code.org/users/sign_in] (https://studio.code.org/users/sign_in)) and log in using their section code or picture cards. Focus today's session on Debugging—the process of identifying and fixing errors in code. Introduce the PRIMM method (Predict, Run, Investigate, Modify, Make), encouraging pupils to predict what their code will do before pressing "Run." Guide pupils through Course levels where pre-built algorithms contain intentional mistakes, asking them to spot the precise block causing the error and correct it. 50–60 Minutes Conclude the lesson with a whole-class verbal Exit Ticket asking: <i>Why should you always ask a friend for permission before posting or sharing a photo of them online?</i> (Because it respects their privacy and prevents them from feeling upset or embarrassed). Oversee a structured account log-off procedure for both Code.org and the workstation PC, ensuring all desk spaces, headphones, and chairs are left clean and tidy before exiting the suite.		
ICT Lesson 4	UK Nat. Curriculum "Use logical reasoning to predict the behaviour of simple programs." "Use logical reasoning to detect and correct errors (debug)."	❖ "You used 10 blocks to solve this. Can you find a way to do it with only 5 blocks?" (Addresses CSTA 1B-AP-08 - refining algorithms).	0–10 Minutes Students log onto their assigned computer workstations and open the typing warm-up link directly on the class website (ndovu.org.uk/type/). Pupils complete a 10-minute warm-up focusing on finger placement and key positioning while typing core cybersecurity and programming terms (<i>private, secret, pressure, trusted adult, debug, algorithm</i>). Circulate around the room to	Inclusion: HA/MA LA The course allows all children to progress and gives scope for the children with a quick grasp of this to push themselves whilst teacher support and peer	Resources: Access to the computer suite and the children will need login cards. In theory this can also work on the iPads

	CSTA (Level 1B)1B-AP-15: Test and debug (identify and fix errors) a program or algorithm to ensure it runs as intended. ISTE Students1.5.c Computational Thinker: Break problems into component parts... to facilitate problem-solving.	❖ "Do you see a pattern in the blocks you just used? How could we make that shorter?" (Addresses 1B-AP-10 - leading to loops).	support any pupils needing log-in assistance and ensure proper posture. 10–35 Minutes Gather the class to review the final themes from <i>Play Like Share</i> Episode 3, emphasizing how online pressure should be handled and why private information must never be shared with online strangers. Direct students to launch the "Interactive Safety Studio" widget on the website. Working individually or in pairs, pupils answer the comprehension questions regarding the impact of posting without permission and identifying real-life trusted adults. Pupils then move to Slide 2 to complete the "Private vs. Public Data Inspector," categorizing items such as home addresses, passwords, favorite colors, and class artwork. On Slide 3, pupils use the integrated drawing canvas to design a personal "Cyber Safety Shield" illustrating their safety rules. Once completed, pupils click "Download Complete Lesson 4 Safety Portfolio" to save their HTML assessment summary and drawing into their personal network folder. 35–50 Minutes Transition the class to the main coding activity on Code.org ([https://studio.code.org/users/sign_in] (https://studio.code.org/users/sign_in)). Direct pupils to sign in using their section code or picture cards and continue their progress. Today's coding input focuses on refining algorithms using Repeat Loops to optimize code efficiency (reducing the total number of blocks used) alongside ongoing Debugging practices. Encourage pupils to use the PRIMM approach (Predict, Run, Investigate, Modify, Make) to identify repeated	support can help those having a few initial difficulties.	but the speed of the connection meant this didn't work properly on the previous attempt. All videos are in the corresponding folder on teams / sharepoint. Copies of the Play Like Share workbooks and also have episode 1 ready.
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			patterns before placing repeat blocks into their program workspace. 50–60 Minutes Conclude the lesson with a whole-class verbal Exit Ticket asking: <i>Name three pieces of personal information that must ALWAYS stay private online.</i> (Passwords, home address, phone numbers, and full name). Oversee a structured account log-off procedure for both Code.org and the workstation PC, ensuring all desk spaces, headphones, and chairs are left clean and tidy before exiting the suite.		
ICT Lesson 5	UK Nat. Curriculum"Use sequence... in programs." CSTA (Level 1B)1B-AP-10: Create programs that include sequences... ISTE Students1.6.b Creative Communicator: Create original works... into new creations.	❖ "If you want to draw a square, what two commands do you need to repeat?" (Addresses CSTA 1A-AP-10). ❖ "Does the computer know what a 'square' is, or do we have to explain it step-by-step?" (Addresses ISTE 1.5.d - automation/algor ithmic thinking).	0–10 Minutes Students log onto their assigned computer workstations and open the typing warm-up link directly on the class website (ndovu.org.uk/type/). Pupils complete a 10-minute touch-typing practice session focusing on finger positioning and keystroke accuracy while typing core coding and geometry vocabulary (<i>sequence, loop, repeat, angle, turn, move, pattern</i>). Circulate to support any pupils requiring log-in assistance and ensure proper posture. 10–35 Minutes Gather the class to introduce how computers use algorithms to draw shapes. Explain that computers do not automatically understand geometric concepts like a "square" or "triangle"—they require precise, ordered sequences of instructions (e.g., <i>Move Forward</i> followed by <i>Turn Right</i>) executed step-by-step. Direct students to launch the "Interactive Algorithmic Artist & Sequence Studio" widget on the website. Pupils work through Slide	Inclusion: HA/MA LA The course allows all children to progress and gives scope for the children with a quick grasp of this to push themselves whilst teacher support and peer support can help those having a few initial difficulties.	Resources: Access to the computer suite and the children will need login cards. In theory this can also work on the iPads but the speed of the connection meant this didn't work properly on the previous attempt. All videos are in the correspondin g folder on

			1, testing the interactive shape simulator to observe how different repeating sequences create squares, triangles, and stars. On Slide 2, pupils answer sequence logic questions regarding the necessary commands to form shapes and explain why the order of instructions matters. On Slide 3, pupils use the drawing canvas to design a geometric pattern or composite shape (such as a house formed by a square and a triangle). Once completed, pupils click "Download Lesson 5 Artist Report" to save their HTML assessment summary and drawing into their student network folder. 35–50 Minutes Transition the class to the main coding activity on Code.org Artist puzzles ([https://studio.code.org/users/sign_in] (https://studio.code.org/users/sign_in)). Direct pupils to sign in using their section code or picture cards. Guide pupils through block-based turtle graphics puzzles where they write programs to move an artist avatar across the screen. Focus on sequence (ordering move and turn blocks correctly) and using repeat loops to complete multi-sided shapes efficiently. Highlight turn angles, noting that a standard corner turn is 90° while sharper polygon angles require larger turn values. 50–60 Minutes Conclude the lesson with a whole-class verbal Exit Ticket asking: <i>What exact sequence of instructions does a computer need to draw a square?</i> (Repeat 4 times: Move forward, turn right 90 degrees). Oversee a structured account log-off procedure for both Code.org and the workstation PC, ensuring all desk spaces,		teams / sharepoint. Copies of the Play Like Share workbooks and also have episode 2 ready.
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			headphones, and chairs are left clean and tidy before pupils exit the suite.		
ICT Lesson 6	UK Nat. Curriculum "Use repetition in programs." "Solve problems by decomposing them into smaller parts." CSTA (Level 1B) 1B-AP-10: Create programs that include... loops. 1B-AP-11: Decompose problems into smaller, manageable subproblems. ISTE Students1.5.d Computational Thinker: Understand how automation works and use algorithmic thinking...	❖ "Instead of using 'Move, Turn, Move, Turn, Move, Turn', what single block could we use?" (Addresses UK Repetition and CSTA 1B-AP-10). ❖ "If we change the angle from 90 degrees to 45 degrees, what will happen to our shape?" (Addresses UK Prediction).	0–10 Minutes Students log onto their assigned computer workstations and open the typing warm-up link directly on the class website (ndovu.org.uk/type/). Pupils complete a 10-minute warm-up focusing on finger positioning and keystroke accuracy while typing core coding and geometry terms (<i>decomposition, repetition, loop, angle, degree, corner, polygon</i>). Circulate to support any pupils requiring log-in assistance and ensure proper posture. 10–35 Minutes Gather the class to introduce the concept of Decomposition—breaking a big, complex task into smaller, manageable steps. Demonstrate how drawing a multi-sided shape is simply repeating a single unit of work (<i>Move Forward → Turn Corner</i>). Direct students to launch the "Interactive Decomposition & Angle Studio" widget on the webpage. Pupils work through Slide 1, testing the angle simulator to observe how changing corner degrees from 90° to 120° or 60° alters the resulting polygon. On Slide 2, pupils answer reasoning questions explaining how a single repeat loop replaces long strings of code and how turn angles dictate shape outcomes. On Slide 3, pupils use the drawing canvas to design a multi-angled polygon or composite shape (such as a house or hexagon pattern). Once completed, pupils click "Download Lesson 6 Decomposition Report" to save their HTML assessment summary and drawing into their student network folder.	Inclusion: HA/MA LA The course allows all children to progress and gives scope for the children with a quick grasp of this to push themselves whilst teacher support and peer support can help those having a few initial difficulties.	Resources: Access to the computer suite and the children will need login cards.

			35–50 Minutes Transition the class to the main coding activity on Code.org Artist puzzles ([https://studio.code.org/users/sign_in] (https://studio.code.org/users/sign_in)). Direct pupils to sign in using their section code or picture cards. Guide pupils through turtle graphics levels focusing on decomposition and loops. Remind pupils to break each puzzle down into one side and one turn first, and then wrap that sequence inside a repeat loop set to the correct number of sides. 50–60 Minutes Conclude the lesson with a whole-class verbal Exit Ticket asking: <i>What is 'Decomposition' in computer science?</i> (Breaking a big, complex problem down into smaller, manageable parts). Oversee a structured account log-off procedure for both Code.org and the workstation PC, ensuring all desk spaces, headphones, and chairs are left clean and tidy before pupils exit the suite.		
ICT Lesson 7	UK Nat. Curriculum "Use repetition in programs." "Solve problems by decomposing them into smaller parts." CSTA (Level 1B) 1B-AP-10: Create programs that include... loops.	❖ "We want this code to run <i>only</i> when we click the mouse. Which block do we need?" (Addresses CSTA 1B-AP-10 - Events). ❖ "Look at your partner's code. Can you predict what pattern it will draw before	0–10 Minutes Students log onto their assigned computer workstations and open the typing warm-up link directly on the class website (ndovu.org.uk/type/). Pupils complete a 10-minute warm-up focusing on finger placement and key positioning while typing core programming vocabulary (<i>loop, event, trigger, repeat, pattern, nested, event-driven</i>). Circulate around the room to assist pupils needing log-in support and to monitor proper posture. 10–35 Minutes	Inclusion: HA/MA LA The course allows all children to progress and gives scope for the children with a quick grasp of this to push themselves whilst teacher support and peer support can help those	Resources: Access to the computer suite and the children will need login cards.

	1B-AP-11: Decompose problems into smaller, manageable subproblems. ISTE Students1.5.d Computational Thinker: Understand how automation works and use algorithmic thinking...	they hit run?" (Addresses UK Logical Reasoning).	Gather the class to introduce Events—actions like clicking a mouse or pressing an arrow key that tell the computer <i>when</i> to execute specific algorithms. Direct students to launch the "Interactive Loops & Events Studio" widget on the webpage. Working individually or in pairs, pupils complete Slide 1 by testing the interactive Event Trigger Simulator to see how mouse clicks, key presses, and nested loops execute code. On Slide 2, pupils answer logical reasoning questions regarding event blocks and the efficiency of repeat loops over manual code repetition. On Slide 3, pupils use the integrated drawing canvas to design an intricate repeating geometric pattern (such as a starburst or flower). Once completed, pupils click "Download Lesson 7 Loops & Events Report" to save their HTML assessment summary and artwork into their personal network folder. 35–50 Minutes Transition the class to Code.org ([https://studio.code.org/users/sign_in] (https://studio.code.org/users/sign_in)). Direct pupils to sign in using their section code or picture cards and continue their progress. Today’s coding input focuses on combining Events and Nested Loops (loops placed inside other loops) to create automated, repeating geometric patterns. Encourage pupils to experiment with turn angles between loop cycles to form full 360° circular patterns. 50–60 Minutes Conclude the lesson with a whole-class verbal Exit Ticket asking: <i>What is an 'Event' in computer coding?</i> (An action like a click or key press that tells the computer when to run specific code). Oversee a structured account log-off procedure for both Code.org	having a few initial difficulties.	
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			and the workstation PC, ensuring all desk spaces, headphones, and chairs are left clean and tidy before pupils exit the suite.		
ICT Lesson 8	UK Nat. Curriculum "Design, write and debug programs that accomplish specific goals." CSTA (Level 1B)1B-AP-12: Modify, remix, or incorporate portions of an existing program into one's own work. ISTE Students1.4.a Innovative Designer: Know and use a deliberate design process for generating ideas.	❖ "Can you draw your shape on this whiteboard <i>before</i> you try to code it?" (Addresses ISTE 1.4.a - deliberate design process). ❖ "How is the 'Repeat' block in Pencil Code different from the one in Code.org?" (Addresses CSTA 1A-CS-01 - comparing software/tools). ❖ "If you wanted to make your square twice as big, which number would you change?" (Addresses UK Variables/Inputs implicitly). ❖	0–10 Minutes Students log onto their assigned computer workstations and open the typing warm-up link directly on the class website (ndovu.org.uk/type/). Pupils complete a 10-minute warm-up focusing on finger placement and key positioning while typing core text-based programming commands (<i>fd, bk, rt, lt, repeat, pu, pd</i>). Circulate around the room to assist pupils needing log-in support and to monitor proper posture. 10–35 Minutes Gather the class to introduce the Unit Capstone. Explain that they are now graduating from block-based Code.org to writing real text-based algorithms using Pencil Code. Direct students to launch the "Interactive Turtle Studio & Polygon Builder" widget on the webpage. Working individually or in pairs, pupils complete Slide 1 by testing the mini-turtle simulator to see how text commands like <i>fd 80</i> and <i>rt 90</i> draw shapes. On Slide 2, pupils answer reflection questions comparing text-based repeat loops with block loops, and explain the function of Pen Up (<i>pu</i>) and Pen Down (<i>pd</i>). On Slide 3, pupils use the drawing canvas to manually sketch a design they want to code (e.g., a house or a multi-polygon pattern). 35–50 Minutes Transition the class to Slide 4, which links directly to the external Pencil Code sandbox (pencilcode.net/edit/first). Pupils spend this time experimenting in the external sandbox, applying their knowledge of decomposition and loops to program the design they sketched. Encourage advanced pupils to experiment with combining <i>pu</i> and <i>pd</i> to draw disconnected shapes like windows on a house. Five minutes before this section ends, ensure all pupils copy their finished text code from the Pencil Code website, paste it into the save box on Slide 4, and click "Download Year 3 Capstone Portfolio	Inclusion: HA/MA LA The course allows all children to progress and gives scope for the children with a quick grasp of this to push themselves whilst teacher support and peer support can help those having a few initial difficulties.	Resources: Access to the computer suite and the children will need login cards. In theory this can also work on the iPads but the speed of the connection meant this didn't work properly on the previous attempt. All videos are in the corresponding folder on teams / sharepoint.

			Report" to save their final assessment into their personal network folder. 50–60 Minutes Conclude the lesson and the unit with a whole-class verbal Exit Ticket asking: <i>What is the difference between fd 50 and fd 100 in our text code?</i> (The turtle moves twice as far forward). Oversee a structured account log-off procedure for the workstation PCs, ensuring all desk spaces, headphones, and chairs are left clean and tidy before pupils exit the suite.		
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