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How to Use This Learning Plan

This learning plan provides an overview of the Unplugged Adventures for 3rd Class, including it's structure, learning goals and outcomes, as well as guidance on how to effectively deliver the lessons.

Course Structure

The course is broken down into modules, units and lessons. Each unit focuses on a specific topic and contains several lessons that build on each other to develop students' skills progressively.

Student Access

Students log into the platform to access their lessons. They can follow the step-by-step instructions independently, or teachers can lead the lesson as needed.

Conducting a Lesson

Here's the recommended approach for starting a lesson:

- 1. Log in to your teacher account and open your class.
- 2. Locate and 'pin' the lesson you'll be covering.
- 3. Generate a login code for the students.
- 4. Have students visit codingireland ie, enter the login code, and open the pinned lesson.

All lessons are divided into clear, manageable steps, and they can be delivered in one of these ways:

- 🗗 Teacher-led (e.g., demonstrated on a shared screen);
- Large Student-directed, where learners work independently;
- Or a combination of both approaches.

Challenges

Most lessons include an optional challenge at the end. If time permits, these activities encourage students to extend their work from the lesson, enabling differentiation in learning.

Quizzes

Most lessons include an optional multiple-choice quiz at the end to reinforce key concepts. Students can select from three difficulty levels:

- 1. Easy: Focuses on basic concepts, simple recall, and foundational understanding.
- 2. Normal: Involves moderate complexity, requiring straightforward application of concepts.
- 3. Hard: Presents challenging questions that demand deeper analysis, application to edge cases, or complex scenarios.

Student Devices and Equipment

Students only need a Chromebook, laptop, PC, or tablet (such as an iPad). Some courses in the Digital Skills Curriculum may require additional equipment, like micro:bits or LEDs, which are specified in the course details. If you don't have micro:bits it's still possible to do most of the microbit lessons using the virtual micro:bit in the project editor.

If possible we recommend student devices with a physical keyboard (i.e. a Chromebook instead of an iPad). Student devices can be shared amongst students (with them working in a group of 2 or 3) if necessary.

Need Help?

We're always happy to answer your questions and give advice. You can contact our team at info@codingireland.ie or 01 584 9955.

Unplugged Adventures



This course introduces young learners to fundamental coding concepts through engaging, hands-on unplugged activities without digital devices. Students explore algorithms, loops, and conditionals by creating origami, designing board games, and crafting choose-your-own-adventure stories. Through reflective tasks, they build problem-solving skills and understand the importance of clear, logical steps.

Duration	Equipment
Classroom hours ~4 hours	Required Equipment: • IWB/Projector/Large Screen
Learning Goals	Learning Outcomes
 Understand the importance of clear, sequential steps in problem-solving through hands- on activities. 	
2. Apply critical thinking to design and refine processes in unplugged tasks.	
3. Explore the impact of decision structures on outcomes in practical projects.	
4. Recognise the value of repetition and patterns in creating efficient solutions.	
5. $\ensuremath{\mathbb{N}}$ on and improve personal creations by testing and adapting strategies.	

Module: Lessons

This module offers an insightful Exploration of foundational skills through hands-on activities for young learners. It guides students through structured problem-solving with origami, algorithm design, decision-based storytelling, and game creation. Each activity emphasises clarity, order, and creativity, fostering critical thinking and practical application in real-world contexts.

Unit	Lesson	Difficulty	Duration	Quiz	Challenge
Lessons	Fold-a-Fish — Why Clear Steps Matter	Beginner	40		
Lessons	The Human Algorithm	Beginner	40		
Lessons	The Decision Maker	Beginner	40		
Lessons	Make your own Mystery	Beginner	40		
Lessons	The Power of Loops	Beginner	40		
Lessons	Make your own Board Game	Beginner	45		

Unit: Lessons

Fold-a-Fish — Why Clear Steps Matter

Hey there! In this lesson, you'll explore how clear, ordered steps impact speed and accuracy by making origami fish. First, try folding without instructions, then follow precise steps, and finally compare both experiences to understand the difference.

Beginner	● 40 mins
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Teacher Notes: Prepare paper squares for each pupil and ensure a visible timer is ready. Guide students through two origami attempts—first without instructions, then with clear steps—to highlight the value of ordered algorithms. Facilitate reflections after each attempt, encouraging comparisons of speed, accuracy, and ease to connect to coding concepts.

Required equipment for this lesson:

Learning Goals	Learning Outcomes
1. Understand the importance of clear, ordered instructions in achieving accurate results.	
2. Compare the effectiveness of guided versus unguided approaches to problem-solving.	
3. Recognise the concept of an algorithm as a step-by-step process.	
4. Reflect on personal experiences to identify challenges and benefits of structured tasks.	
5. Apply critical thinking to improve or adapt a set of instructions for efficiency.	

The Human Algorithm

Hey there! In this lesson, you'll transform everyday tasks into clear, step-by-step algorithms. Work through activities like reordering scrambled steps, writing precise instructions, and swapping sequences with a partner to see why order and wording matter

Beginner	• 40 mins

Teacher Notes: To spark curiosity, begin by connecting everyday tasks to logical thinking, preparing arrow-box worksheets, pencils, and scissors for hands-on engagement. Facilitate by guiding students through scrambled sequences on the board, emphasising precise verbs and order, and using the robot analogy to stress clarity in writing steps. Encourage peer swaps to test instructions, fostering critical feedback. Be mindful of varying student precision levels—offer extra examples for strugglers. Wrap up by celebrating clear sequences, linking to real-world problem-solving, and ensuring all feel confident in breaking tasks into actionable, ordered steps.

Required equipment for this lesson:

Learning Goals	Learning Outcomes

Unplugged Adventures / Module: Lessons / Unit: Lessons / Lesson: The Decision Maker

The Decision Maker

Beginner	● 40 mins

Required equipment for this lesson:

Learning Goals	Learning Outcomes

Make your own Mystery

Hey there! In this lesson, you'll create your own choose-your-own-adventure mystery story. You'll build on the If/Then/Else ideas from last week by making stories with choices that lead to different endings. Get ready to be creative and see how decisions change the outcome!

Teacher Notes: Prepare paper and pens for each pupil. This unplugged activity builds on Week 3's Conditionals 2.0 by having pupils create simple choose-your-own-adventure stories. Guide them to incorporate if/then/else logic through story branches. Facilitate reflections to connect the activity to coding concepts, emphasising how choices mirror conditional statements. Encourage creativity while keeping structures simple for 8-9 year olds.

Required equipment for this lesson:

Learning Goals	Learning Outcomes

The Power of Loops

Hey there! In this lesson, you'll explore advanced loops to repeat actions efficiently. You'll create a fun workout using variable loops, follow exercise sequences, and build your own patterns. Grab paper, coloured pencils, and a die to get started!

Beginner	• 40 mins

Teacher Notes: Prepare materials like paper, coloured pencils, and a six-sided die for each group. Introduce variable loops using the on-screen Exercise Trio and Patterns, guiding students through shuffled sequences and repeats. Facilitate group activities to create and perform custom exercise patterns, ensuring safety. Encourage reflection on variable loops and real-life examples.

Required equipment for this lesson:

Learning Goals	Learning Outcomes
1. Understand the concept of variable loops and how they allow for a changing number of repetitions.	
2. Apply loops to create and follow sequenced patterns in a practical, interactive context.	
3. Recognise the role of algorithms in defining the order and repetition of actions.	
4. Develop skills in designing and sharing original patterns using loops.	
5. Identify real-life examples of loops and their application beyond coding.	

Make your own Board Game

In this lesson, students will reflect on board games they have played before, discuss key elements like rules and instructions, then design and create their own board game complete with a custom board and an instruction manual. They will test their games and refine the rules for clarity.

Beginner	4 5 mins

Teacher Notes: Prepare by gathering materials such as paper, coloured pencils, dice, counters, and printable board templates if available. Familiarise yourself with basic board game structures including setup, turns, conditionals (if-then rules), and winning conditions. Facilitate group discussions to encourage reflection, and support students during the creation and testing phases. Encourage creativity while emphasising the importance of clear, fair rules to avoid confusion.

Required equipment for this lesson:

Learning Goals	Learning Outcomes

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