

LESSON 28

If/Then (Old MacDonald had a Farm)

45 minutes (2 periods)

Unplugged Coding - Music

WHAT THIS LESSON DOES

In this lesson, you'll explore conditional logic using the structure of a familiar song. Learn how IF/THEN rules work by connecting items to actions, and create your own fun rules with classmates using school objects.

WHAT STUDENTS SHOULD BE ABLE TO DO

- Understand the concept of conditional logic through IF/THEN rules.
- Apply IF/THEN logic to create decision-making scenarios.
- Collaborate to develop custom rules using familiar objects or themes.
- Demonstrate logical thinking by connecting triggers to specific actions.
- Express creativity in designing and performing personalised logical sequences.

BEFORE THE LESSON

- This lesson is unplugged: no devices are needed.
- Print the Old MacDonald Cut and Paste Worksheet, one per pupil, and have scissors and glue ready for each table.
- Have the transport flip chart images ready to display (Train, Car, Boat, Airplane), and be prepared to sing the song aloud to open the lesson.

If/Then (Old MacDonald had a Farm)

HOW THE LESSON RUNS

Introduction

Old MacDonald Had a Farm

Establish the Rule

Old MacDonald had a Train

Individual Coding-The Cut and Paste Activity

Class Performance

TEACHING MOVES

- 2. Old MacDonald Had a Farm. Sing it together first so it is in everyone's head. Sing it two or three times if some pupils do not know it. Do not mention rules yet: enjoy the song, then reveal the hidden logic in the next step.
- 3. Establish the Rule. Say the full rule slowly with your hands: IF I say Cow, THEN you say Moo. Point out that naming the animal forced the sound. Name the trigger the IF and the action the THEN out loud.
- 4. Old MacDonald had a Train. Flip one transport image at a time and ask the class to agree a sound for each before moving on. Keep the IF/THEN framing every time: IF Train, THEN choo choo. Test a couple back with no image warning.
- 5. Individual Coding, Cut and Paste. Have pupils choose and cut four transport pictures, glue each down, and write or say the noise it makes. Encourage odd, invented sounds: the rule is theirs to design.
- 6. Class Performance. Insist on the full sentence: IF my song says Truck, THEN the noise is Rumble. The class only makes the sound after the pupil names the IF, reinforcing that the trigger comes first.

WHAT TO WATCH FOR

- Pupils give the sound (THEN) without stating the trigger (IF), treating it as just naming noises rather than a rule. Withhold the class response until the pupil says the full IF/THEN sentence. If they skip the IF, prompt: what starts this sound?
- Pupils think any two things paired together is an IF/THEN rule, missing that one thing must cause the other. Ask which part comes first and which must follow. Reinforce that the transport is the trigger and the sound only happens because of it.

DIFFERENTIATION

- Emerging: Let them reuse a sound already agreed as a class rather than inventing a new one, so the IF/THEN structure is the focus. Sit beside them and say the IF half so they only supply the THEN.
- Developing: Have them say their rule aloud to a partner before the class performance to rehearse the full sentence. Prompt them to check each rule has both an IF and a THEN before gluing.
- Proficient: Challenge them to add a rule with two triggers, such as IF Train and Boat, THEN a combined sound. Ask them to explain to you why the IF must come before the THEN.