

Follow and create algorithms involving a sequence of steps and...

follow and create algorithms involving a sequence of steps and decisions to investigate numbers; describe any emerging patterns

Learning intention

- follow and create algorithms involving a sequence of steps and decisions to investigate numbers; describe any emerging patterns

Teach and model

- following or creating an algorithm to generate number patterns formed by doubling and halving using technology to assist where appropriate; identifying and...
- following or creating an algorithm that determines whether a given number is a multiple of 2, 5 or 10, identifying and discussing emerging patterns
- creating an algorithm as a set of instructions that a classmate can follow to generate multiples of 3 using the rule "To multiply by 3 you double the number and add on one..."

Check understanding

- Explain the main idea in follow and create algorithms involving a sequence of steps and... using an example.
- Show the idea in a second way: with words, a model, a diagram or symbols.
- Apply the idea to a short unfamiliar situation and justify the result.

Teaching cautions

- Ask the student to explain their choice, not only state an answer.
- Check that key vocabulary is understood in a new example.
- Mix representations so the skill is transferred rather than copied.

Quick lesson sequence

- Connect to prior knowledge and introduce the key vocabulary.
- Model one clear example, then solve a second example together.
- Finish with an independent check and a short student explanation.