Year 8 Maths Learning Journey

Spring term 2

Algebraic techniques: Sequences

Core knowledge	Reference
Generate sequences given a rule in words "What's the name for a sequence where there is a constant difference between successive terms?"	WORKSHEET
Generate sequences given a simple algebraic rule "How can you tell by looking at the rule for the nth term of a sequence whether it is linear or not?"	WORKSHEET
Generate sequences given a complex algebraic rule "Do you need to expand the brackets first in order to substitute?"	WORKSHEET
Find the rule for the nth term of a linear sequence (H) "How can you tell the sequence is linear?"	WORKSHEET

Learning Checkpoints

LC Title	Completed	Dirt
Sequences		

Key Vocabulary:

Algebraic: The part of mathematics that deals with generalised arithmetic.

Bracket: Symbols used to group numbers in arithmetic or letters and numbers in algebra and indicating certain operations as having priority

Coefficient: Often used for the numerical coefficient. More generally, a factor of an algebraic term.

Constant: A number or quantity that does not vary.

Difference: In mathematics (as distinct from its everyday meaning), difference means the numerical difference between two numbers or sets of objects and is found by comparing the quantity of one set of objects with another.

Expand: to multiply each term in the bracket by the expression outside the bracket.

Fibonacci: a sequence in which each number is the sum of the two preceding numbers.

Integer: Any of the positive or negative whole numbers and zero. Example: 2, -1,

Linear: In algebra, describing an expression or equation of degree one.

Non-integer: Non-integers are any number that is a decimal, fraction, or mixed unit.

Non-linear: sequences that do not increase by a constant amount.

Position-to-term: In a sequence, a rule that defines the value of each term with respect to its position.

Rule: Generally a procedure for carrying out a process.

Sequence: A succession of terms formed according to a rule.

Substitute: Numbers can be substituted into an algebraic expression in x to get a value for that expression for a given value of x.

Term-to-term: An algebraic rule to generate the successive terms of a sequence, in terms of the immediately preceding term or terms.