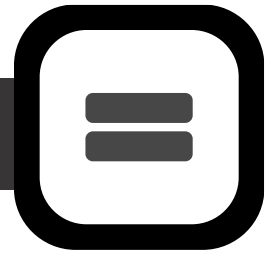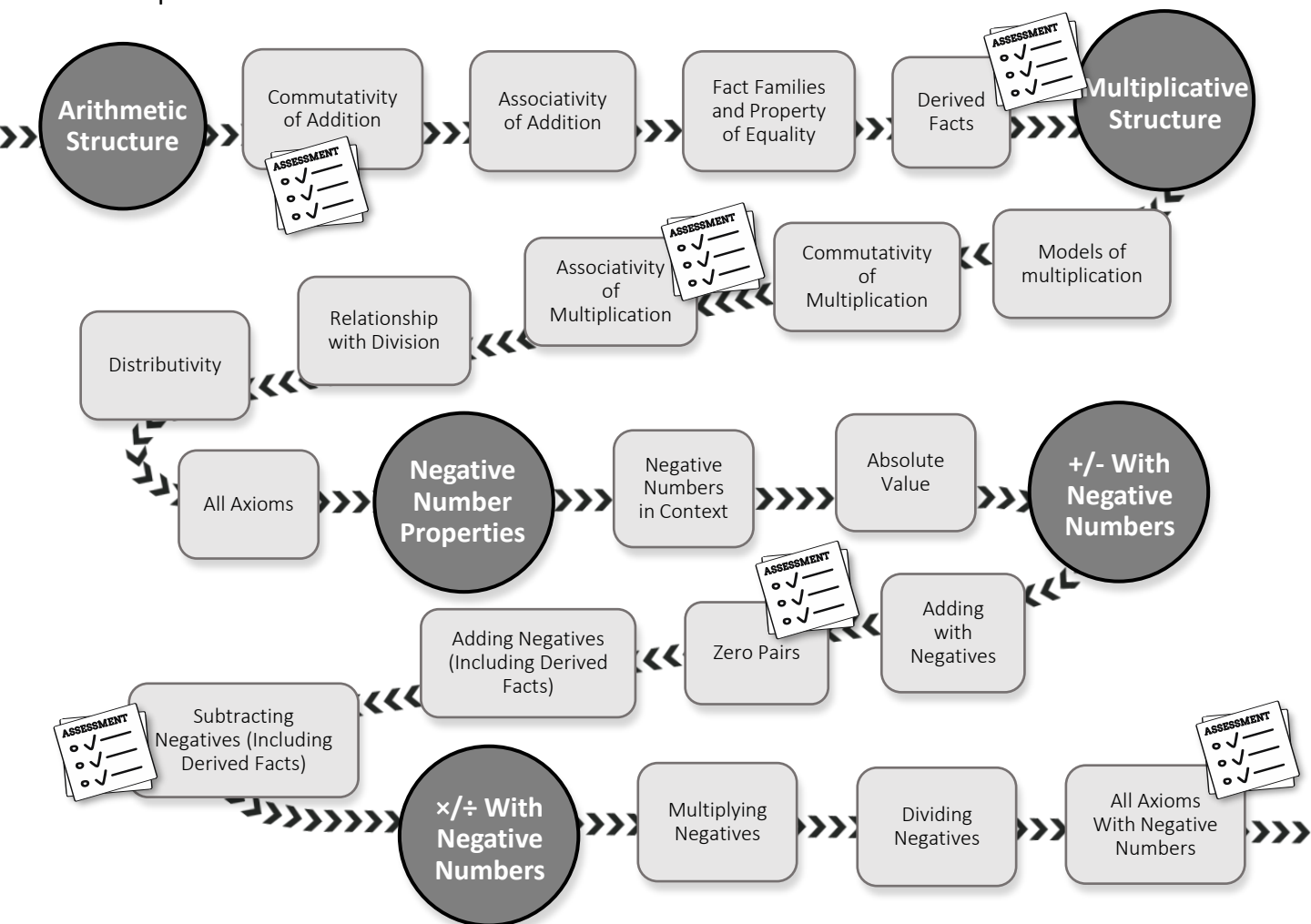# LEARNING JOURNEY | MATHS

Generalised Arithmetic

Year 7 Autumn Half Term 1

Mathematicians have underlying rules and principles that guide us through all levels of work. In this half term you will be unpicking the concepts that make everything you've learnt so far possible, and you will begin to understand the structure of what is happening when you complete common numerical processes.

The knowledge you are learning this half term is essential for understanding how we can manipulate complex calculations to make them easier and more efficient, and how core concepts are all linked.

Arithmetic Structure → Commutativity of Addition → Associativity of Addition → Fact Families and Property of Equality → Derived Facts → Multiplicative Structure

Multiplicative Structure → Models of multiplication → Commutativity of Multiplication → Associativity of Multiplication → Relationship with Division → Distributivity

Distributivity → All Axioms → Negative Number Properties → Negative Numbers in Context → Absolute Value → +/- With Negative Numbers

+/- With Negative Numbers → Adding with Negatives → Zero Pairs → Adding Negatives (Including Derived Facts) → Subtracting Negatives (Including Derived Facts) → ×/÷ With Negative Numbers

×/÷ With Negative Numbers → Multiplying Negatives → Dividing Negatives → All Axioms With Negative Numbers

TUDOR HABITS AND VALUES: You will begin to understand what it is to be a mathematician; to be inquisitive, curious, kind yet critical, and you will start to build metacognitive skills through your questioning of concepts and ideas.

VOCABULARY
- ❑ Integer
- ❑ Commutativity
- ❑ Associativity
- ❑ Distributivity
- ❑ Negative