Year 4 Knowledge Organiser
Computing – Programming

Herne Junior School

What I should already know.

- Solve open ended problems with a floor robot, screen turtle and other programmable devices.
- Design, write and run executable programs using a programming language e.g. that used for a floor robot, Scratch, Kodu, Espresso Coding.
- Be able to debug an algorithm (set of instructions) and correct any errors.
- Use repetition in programs to make them more efficient. E.g. Rpt4[FD5 RT90] to draw a square with Roamer.

What will I know by the end of the unit?

- Solve open ended problems with a floor robot, screen turtle and other programmable devices.
- Design, write and run executable programs using a programming language e.g. that used for a floor robot, Scratch, Kodu, Espresso Coding.
- Be able to debug an algorithm (set of instructions) and correct any errors.
- Use repetition in programs to make them more efficient. E.g. Rpt4[FD5 RT90] to draw a square with Roamer.
- Be able to explore the effect of changing variables. Use them to make and test predictions.
- Use 'selection' in a programming sequence i.e. use 'if… then… else…' type actions or statements e.g. if a character is touching a wall then bounce back, else move forward.

Key Vocabulary

Debug

Algorithm

Repetition

Variable

If/then

Sequence

Procedure

Key Knowledge

- Apply and test sequencing skills in a variety of contexts and talk about their experiences.
- Know that there are many computer languages to write programs with.
- Use logical reasoning to explain how simple algorithms work.
- Understand the need to be precise when framing and sequencing instructions.
- Know and understand the technical language used in programming.

Online Safety

Be E-safe and enjoy!

Software