Curriculum Coherence – Year 4 Computing

Term 3	Programming - LOGO

Previous Learning: Chn have programmed using block based code and created their own algorithms.

INTENT

KNOWLEDGE

Programming

-Chn will understand the language of Logo and input simple instructions into Logo.
- Use Logo to create a series of different 2D and rectilinear shapes (Maths Objective Link)
- Understand the 'repeat' function to create shapes efficiently.
- Use build procedures within Logo.
- Understand how to use the language of code and compare it to block code.

VOCABULARY

Code, program, debug, algorithm, Turtle, block based code, text based code, pen up, pen down, command, repeat, decomposition, angles, degrees

SKILLS

- **Logic** – to predict and analyse
- Make steps and rules for their algorithms
- **Evaluate** their own and others' code to help improve their design
- **Abstraction** – remove unnecessary detail to solve a problem
- **Patterns –** spotting patterns and similarities
- **Decomposition –** Breaking problems down into parts
- **Tinkering –** experimenting and playing
- **Creating –** design and make new patterns and designs

IMPLEMENTATION

ACTIVITIES

Creating an effective animation

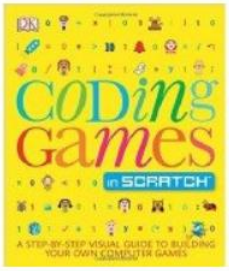
Lesson 1 – **WALT: understand the language of LOGO** The chn will use LOGO, tinkering to learn the text based language of LOGO. Chn will follow simple instructions and code to program effectively.

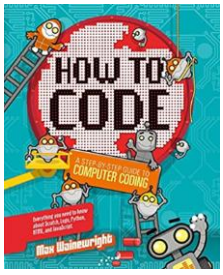
Lesson 2 – WALT: create shapes in LOGO. The chn will learn how to program and create different shapes within LOGO experimenting with different angles.

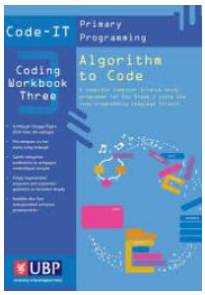
Lesson 3 – **WALT: use the repeat function.** Chn will use the repeat function to efficiently create different shapes and predict the outcome from reading different code.

Lesson 4 – **WALT: use procedures.** The chn will experiment with different procedures within LOGO. Chn will create their own procedures to draw shapes.

Lesson 5/6 *– Chn will explore the Logoators Challenges applying their new skills from the unit.*







IMPACT

OUTCOMES

Creating an animation

PUPILS will know

- Common instructions in Logo and how to program them.
- How to change the colour of the pen and understand PU and PD commands
- How to write text using label commands

will be able to

- Write procedures using simple algorithms
- Fill shapes in different colours
- Draw arcs and shapes of different sizes

will understand

- The difference between block and text based code
- How to predict outcomes using code
- Efficient ways to code using different functions.

NEXT STEPS IN LEARNING

Chn will revisit coding and move into Java and Python coding.

LINKS

Maths – Angles, Position and direction. 2D Shapes