Stalham High School - Subject Curriculum Overview

Subject: Computing						
Year 9						
Half -Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Themes/ Content/ Units covered 	Using count-controlled (for loops) and condition-controlled (while loops) iteration Combining iteration with selection (if, else, elif statements) to create more complex programs Working with variables, inputs, and outputs to design programs that solve specific problems	Applying logical reasoning to predict, test, and evaluate programs, supporting the development of debugging skills Designing and developing modular programs with clear, maintainable code and appropriate comments	Learn how to convert between positive denary numbers into binary numbers and vice versa. Learn how to add two binary integers Understand how NOT, AND & OR gates process their inputs Work out the output of a logic circuit for a given set of inputs Explore logic gates, explain their rules and complete their truth table To be able to create logic diagrams/ circuits for given scenarios	Learn the purpose and use of databases in storing and retrieving data Understand key concepts such as tables, records, fields, and data types Use simple SQL commands to retrieve data (SELECT, WHERE, ORDER BY) Develop problem-solving skills by querying databases to find information	Use Python to create a digital escape room with interactive puzzles Apply problem-solving skills to design challenges that require computational thinking Incorporate selection and iteration to create engaging and dynamic gameplay Test and evaluate digital puzzles, making improvements based on feedback Develop logical reasoning through coding and debugging	Use Python with Turtle to develop a simple retro game (e. g., Snake, Pong) Apply creativity by designing visual elements and game mechanics Learn how to test and debug code to improve game functionality Explore how to make games user-friendly with clear instructions and feedback