Home-School Learning Collaboration – Computing

Topics in this cycle: Boolean logic	Taught: Autumn 2	Year Group: 8

Key knowledge/concepts to be learnt ('Tell me about….')	Websites/blogs/YouTube links and further reading to deepen and consolidate learning
What is Boolean and how do we use it?? Identify what Boolean is and be able to explain what Boolean logic is. To understand the Boolean operators. Apply Boolean logic to solve simple problems **What are truth tables?** To be able to complete truth tables. Be able to use AND, OR, and NOT correctly. **What are logic gates?** Recognize and use simple logic gates Recognize logic gate symbols Apply logic gates to basic real-life problems **What are logic circuits?** Understanding that logic circuits are diagrams that use logic gates Work out the output of a simple logic circuit knowing the input	**Notes/Information** Boolean & logic gates Boolean Logic & Logic Gates: Crash Course Computer Science #3 **Videos** Boolean lesson Boolean logic KS3 | Y8 Computing Lesson Resources | Oak National Academy

Key Vocabulary and Definitions To Be Learnt

Boolean	An expression that evaluates to either True or False
Logic gates	An electronic component that carries out a logical operation
Logic circuits	A circuit that is made from logic gates
Truth tables	A table showing the outputs for all possible combinations of inputs to a logic gate or logic operation.

What Will The Assessment Look Like?

This unit will be assessed during assessment week. The questions on this topic will be as follows:

- Identifying logic gates.
- Combing logic gates to create a logic circuit.
- Completing a truth table for a logic gate or logic circuit.

Family Learning Opportunities

Create a DIY puzzle game with family
Make paper cards for 0 and 1, and pretend to be a logic gate:

Parent gives inputs A and B

Student acts like the AND or OR gate and gives the output