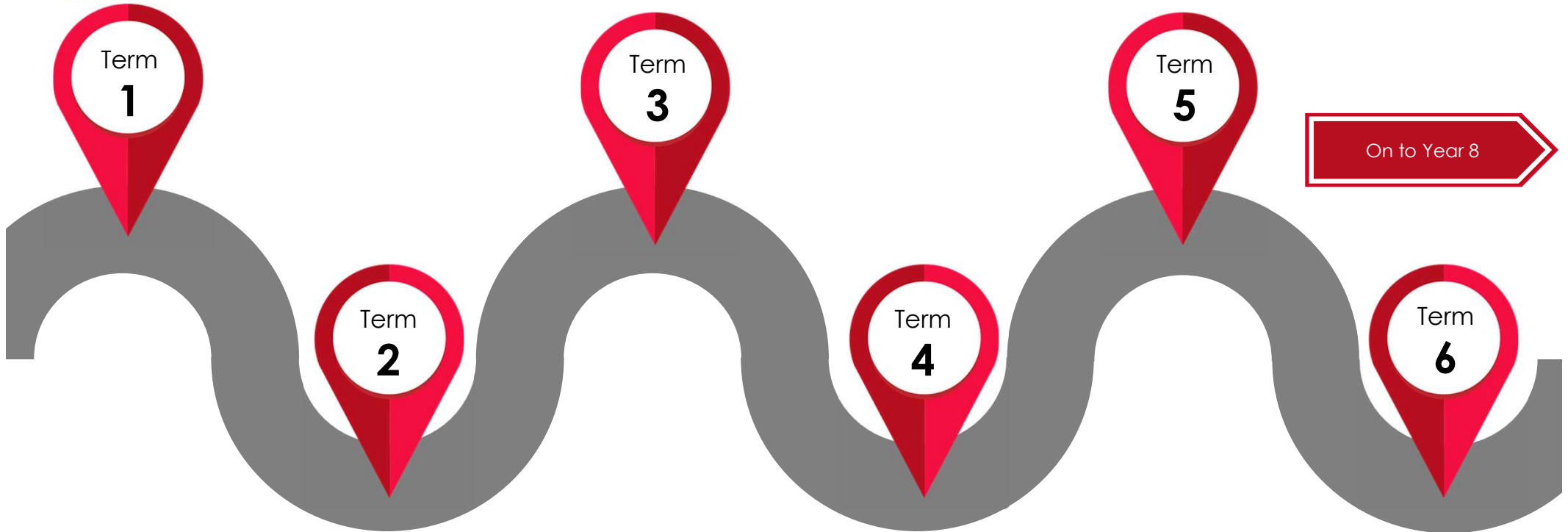




# Computer Science Year 7



On to Year 8

## Introduction to Computer Science

- 1.1 CAT4 Testing
- 1.2 Introduction
- 1.3 Baseline

## Introduction to Computer Science

- 1.3 British Values
- 1.5 Microsoft Outlook
- 1.6 Microsoft Word
- 1.7 PowerPoint
- 1.8 E Safety

## Modelling Data

- 2.1 Introduction
- 2.2 Spreadsheet Calculations
- 2.3 Formatting
- 2.4 Using Formula
- 2.5 Collecting Data
- 2.6 Charts and Functions
- 2.7 Data Handling Skills

## Networks

- 3.1 Networks and Protocols
- 3.2 Hardware
- 3.3 Wired and wireless services
- 3.4 The internet
- 3.5 Internet services
- 3.6 Revision
- 3.7 Assessment

## Scratch Programming

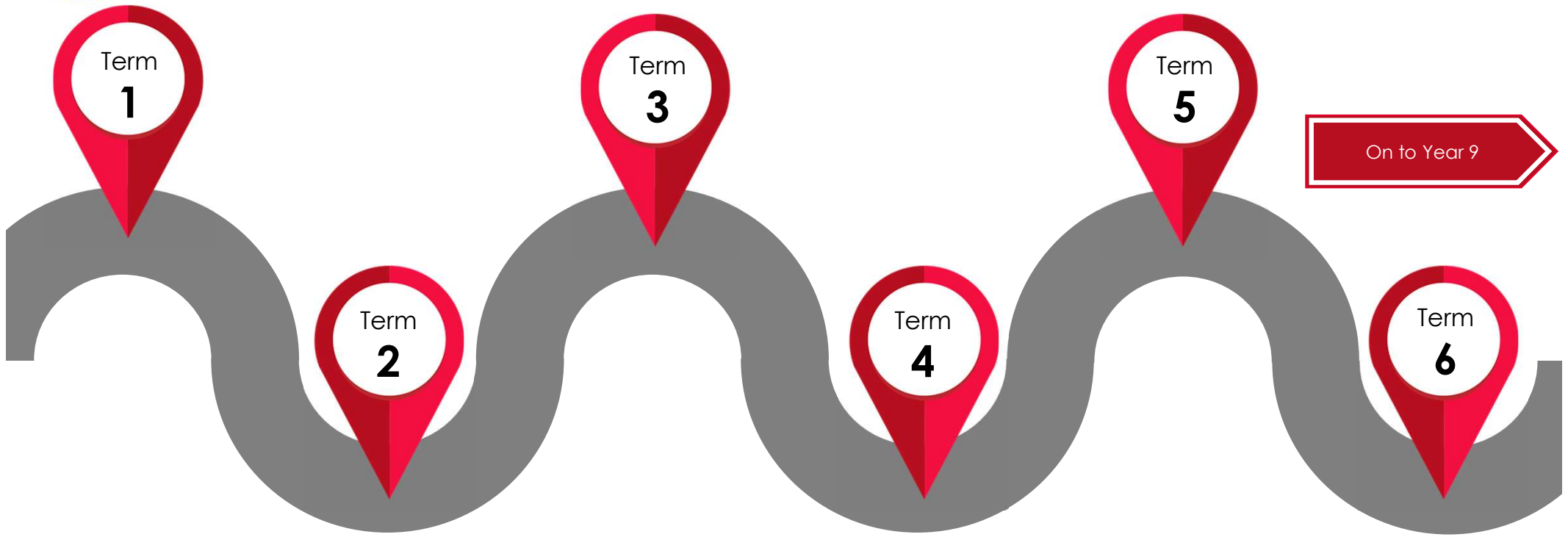
- 4.1 Instructions
- 4.2 Selection and Logic
- 4.3 Problem Solving
- 4.4 Abstraction
- 4.5 Decomposition

## Representation

- 6.1 Binary
- 6.2 Binary Addition
- 6.3 Image Representation
- 6.4 Image Representation
- 6.5?
- 6.6 Sound Representation
- 6.7 Compression



# Computer Science Year 8



On to Year 9

**Cyber Security**

- 1.1 Introduction
- 1.2 Phishing
- 1.3 Social Engineering
- 1.4 Censorship
- 1.5 Cyber Bullying
- 1.6 E-Safety

**Scratch Programming**

- 4.1 Instructions
- 4.2 Selection and Logic
- 4.3 Problem Solving
- 4.4 Abstraction
- 4.5 Decomposition

**Hardware / Software**

- 3.1 Digital Devices
- 3.2 Software
- 3.3 Revision
- 3.4 Assessment
- 3.5 CPU
- 3.6 Memory
- 3.7 Network Hardware

**Representation**

- 6.1 Binary
- 6.2 Binary Addition
- 6.3 Image Representation
- 6.4 Image Representation
- 6.5?
- 6.6 Sound Representation
- 6.7 Compression

**Scratch Programming**

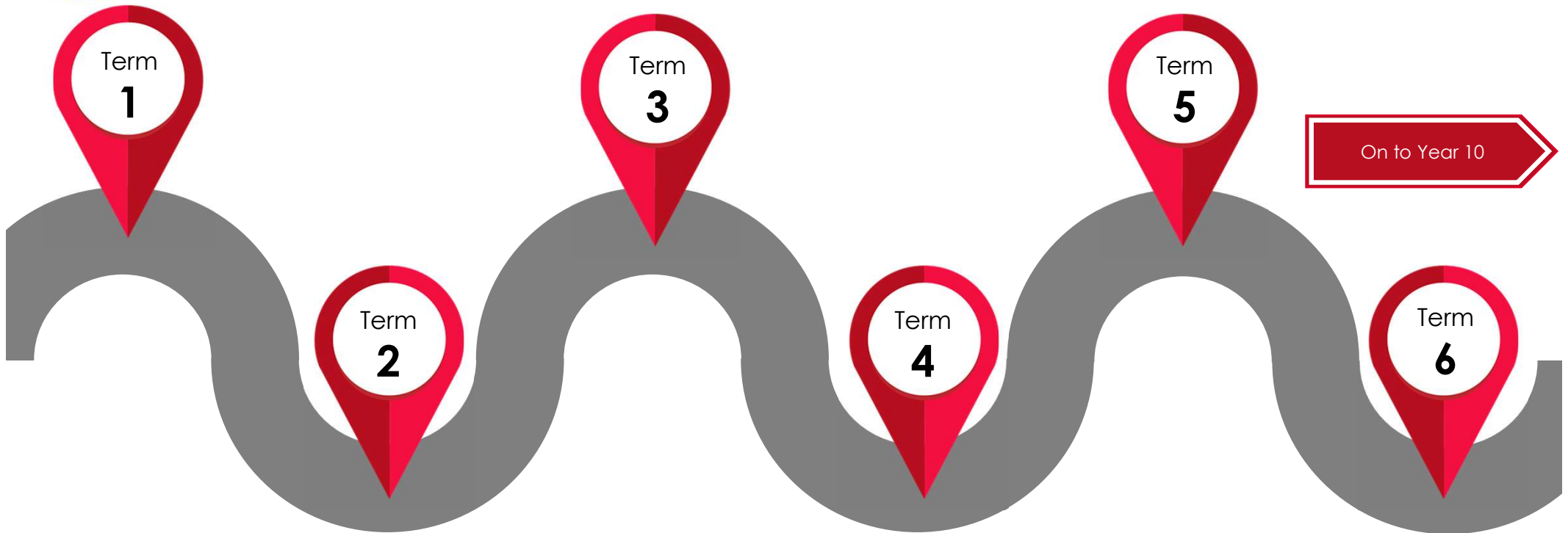
- 2.1 Instructions
- 2.2 Selection and Logic
- 2.3 Problem Solving
- 2.4 Abstraction
- 2.5 Decomposition
- 2.6 Subroutines

**Web Design**

- 6.1 Properties of a website
- 6.2 Planning
- 6.3 Creating a Website
- 6.4 Review and Evaluation



# Computer Science Year 9



On to Year 10

**Ethics**

- 1.1 Privacy
- 1.2 Legislation
- 1.3 Environmental Issues
- 1.4 Legal Issues
- 1.5 Social Issues

**Python Programming**

- 2.1 Instructions
- 2.2 Expressions
- 2.3 Programming
- 2.4 Iteration
- 2.6 Data Structures

**Representation**

- 3.1 Revision
- 3.2 Assessment
- 3.3 Binary
- 3.4 Binary Addition
- 3.5 Image Representation
- 3.6 Sound Representation
- 3.7 Compression

**Algorithms and Logic Gates**

- 4.1 Boolean Logic
- 4.2 Boolean Circuits
- 4.3 Decomposition
- 4.4 Abstraction
- 4.5 Algorithms
- 4.6 Flowcharts

**Computer Systems**

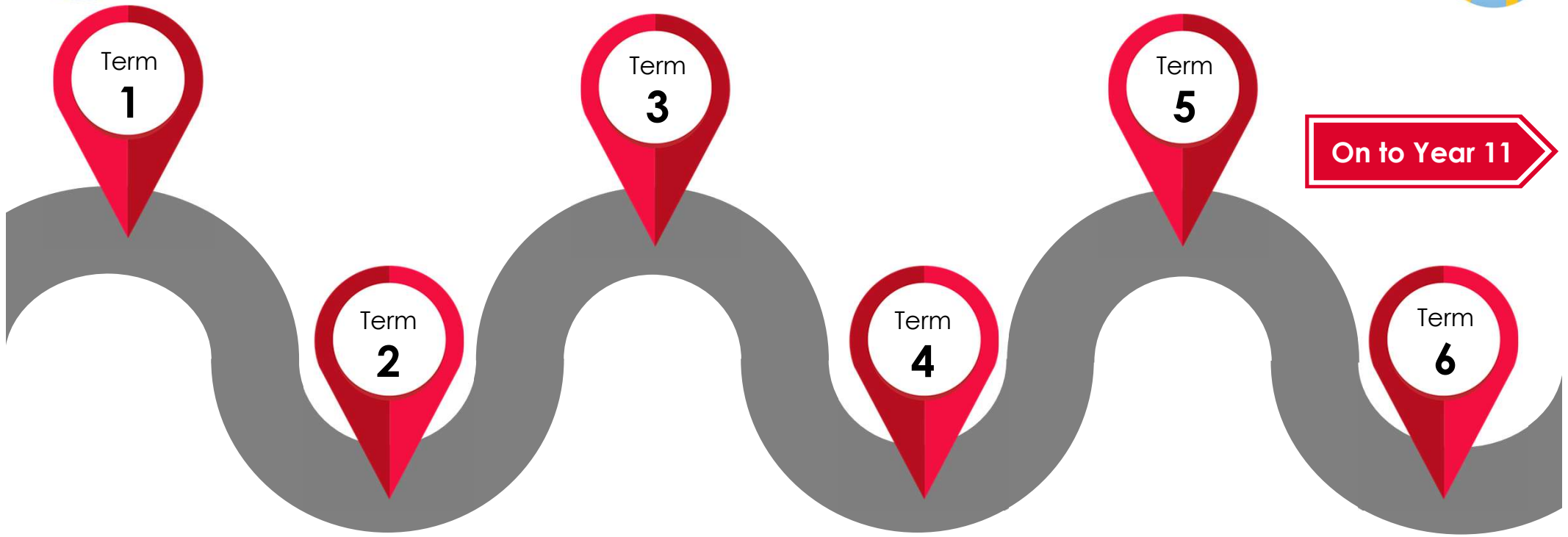
- 5.1 Hardware
- 5.2 Software
- 5.3 Memory
- 5.4 Input / Output
- 5.5 Networks

**Representation**

- 6.1 Decomposition
- 6.2 Properties, purpose & audience
- 6.3 Abstraction
- 6.4 Digitising
- 6.5 Algorithms
- 6.6 Flowcharts
- 6.7 Pseudocode



# AQA GCSE Computer Science (Year 10)



**Unit:**  
Fundamentals of algorithms

**Topics:**  
Decomposition  
Abstraction  
Flow Charts  
Pseudo code

**Unit:**  
Programming

**Topics:**  
Basics of Programming  
Iteration  
Repetition  
Functions  
Arrays  
Files  
Dictionaries  
Robust Programming

**Unit:**  
Data Representation

**Topics:**  
Number Bases  
Conversion  
Units  
Binary  
Arithmetic  
Representing Images  
Representing Sounds  
Data  
Compression

**Unit:**  
Computer Systems

**Topics:**  
Hardware / Software  
Boolean Logic  
Systems architecture

**Unit:**  
Networks

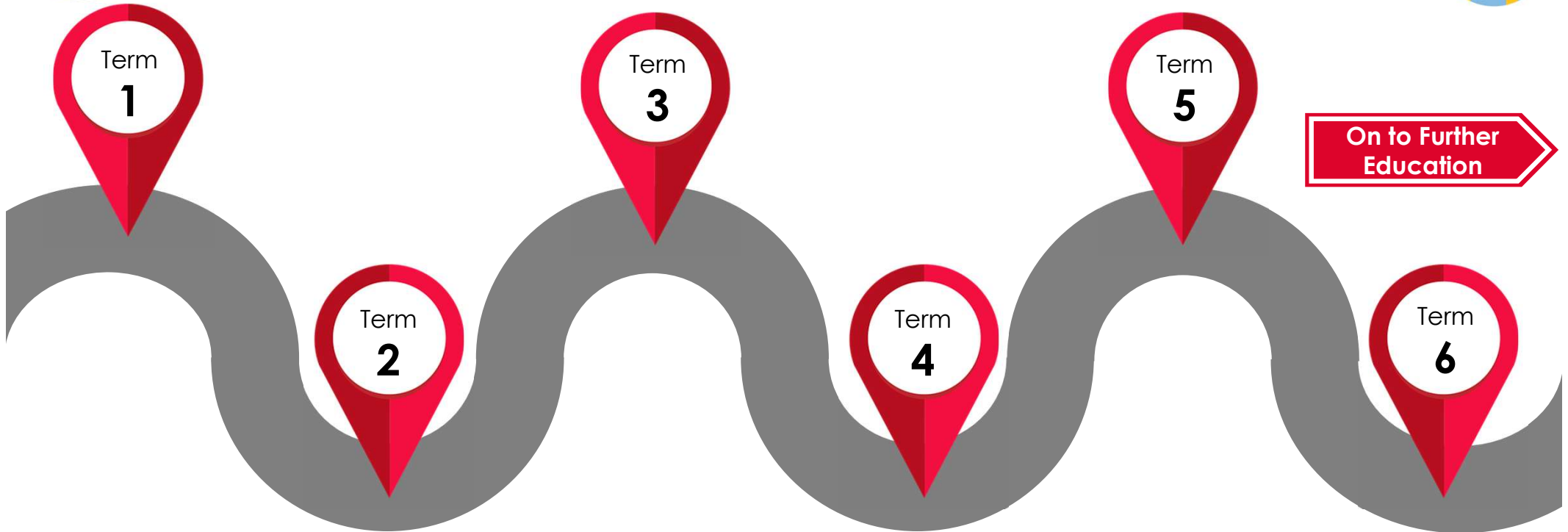
**Topics:**  
Wired / Wireless  
LANS  
Security  
Protocols  
Cyber Security

**Unit:**  
Impact of Technology

**Topics:**  
Ethical  
Legal  
Environmental  
Society  
Privacy



# AQA GCSE Computer Science (Year 11)



## Programming (NEA)

Designing the solution  
Creating the solution  
Testing the solution  
Potential enhancements and refinements

Fundamentals of algorithms / Programming

Topics:  
Revisiting all topics from Year 10

Data Representation / Computer Systems

Topics:  
Revisiting all topics from Year 10

Networks / Impacts of Technology.

Topics:  
Revisiting all topics from Year 10

Revision

Topics dependent on knowledge audit / mock exam analysis.

External Examinations