

Prior Learning
Primary School
Curriculum covering E-
Safety and Technology

Future Learning
Year 8 Curriculum

1

Welcome To ICT
An Introduction to
the School ICT
Network
procedures,
expectations and
health & safety

2

Digital Literacy
Introducing students
to E-safety, Cyber
Security and the
concept of navigating
the "online world".

3

IDEA Award (BRONZE)
An online,
interactive platform.
Students complete
badges that earn points
that then when totalled
issue a Bronze / Silver
certification. The
certificate is recognised
by Colleges and
Universities.

4

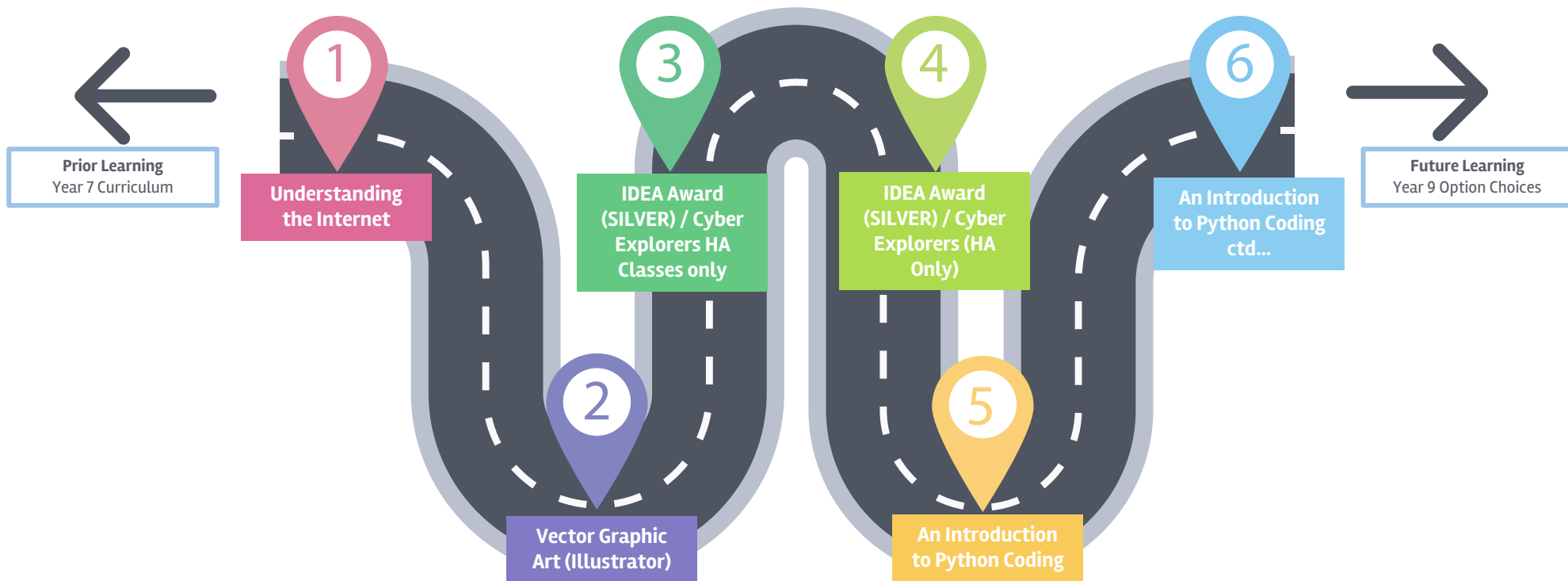
**Understanding
Computers**
Students learn the basics of
computer devices (the 4
processes that need to be
met), Diverse types of
computers that they
interact with daily and their
uses, Computer
Components, Computer
Peripherals, The responsible
use of (Health and Safety).

5

**Image Editing
(Photoshop)**
Students will learn the
process of editing and
manipulating images (and
the Ethical considerations
) using the Adobe
Photoshop. Students will
then make improvement
and manipulate their own
images.

6

**Coding Concepts
(Code.org)**
Students learn the
fundamentals of
programming by
completing lesson tasks
that will create a
functioning working p
block program. They will
develop problem-solving
skills by working though
different ability
challenges.



1

Understanding the Internet

Students learn the origins, development and use of the Internet and World Wide Web. From the very beginning to its' use in society

2

Vector Graphic Art (Illustrator)

Students learn about vector images, understanding their format. Introduced to new software, Adobe Illustrator Software. Then create a variety of images from a project brief.

3

Understanding Binary

Students learn the binary system (0's and 1's). Understand why we use binary and how a computer reads and manipulates binary code to run programs, create images and send information.

4

IDEA Award (SILVER) / Cyber Explorers (HA Only)

IDEA Award: an online, interactive, immersive platform that has a reward system. Students' complete badges that earn points that will earn them a Silver certification.

Cyber Explorers: an online, interactive, platform that seeks to enable students learn skills that are linked to real world technological situations.

5

An Introduction to Python Coding

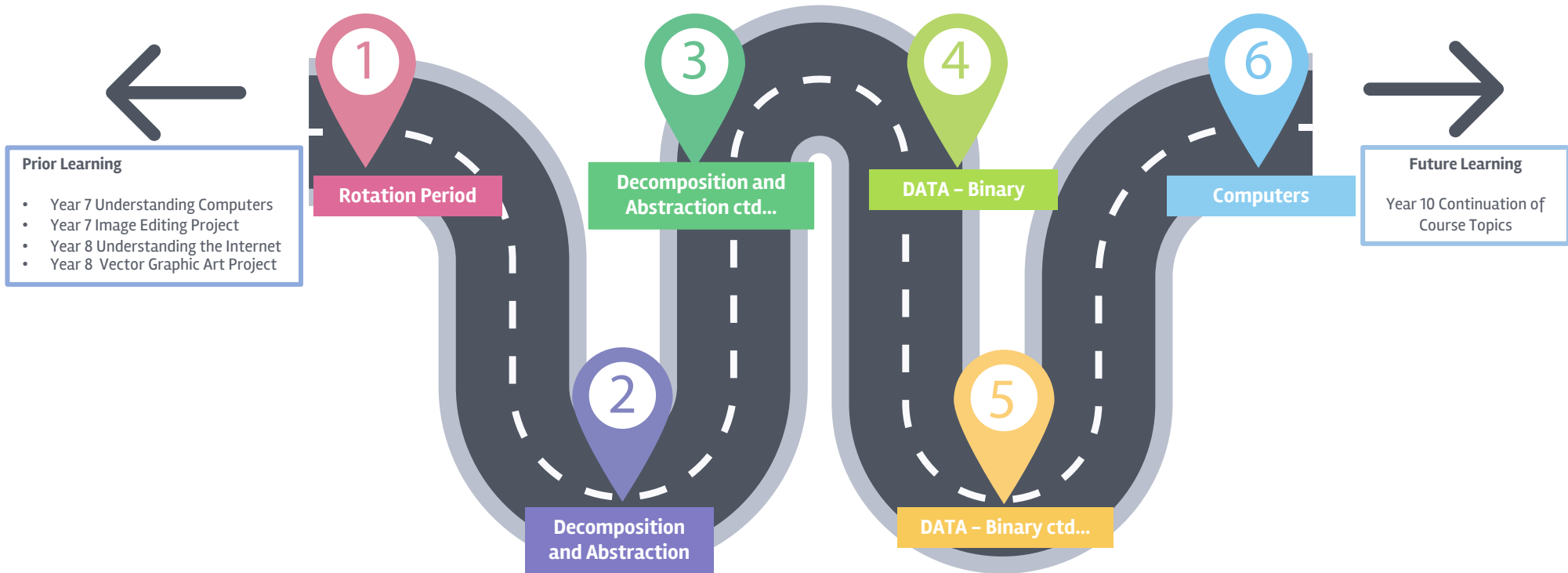
Students learn the basic concepts of the coding language Python. Learning to understand the coding concepts and write basic Python programs.

6

An Introduction to Python Coding ctd...

Students will continue to learn the basic concepts of the coding language Python.

Revisit iDEA Award to finish off outstanding badges and complete the Silver Certification.



Prior Learning

- Year 7 Understanding Computers
- Year 7 Image Editing Project
- Year 8 Understanding the Internet
- Year 8 Vector Graphic Art Project

Future Learning

Year 10 Continuation of Course Topics

1

Rotation Period

EDEXCEL Computer Science

Students are given a 'taste' of what will be covered in the GCSE Computer Science Curriculum. Being introduced to the different topics to be covered and an introduction to the Python Coding Language.

2

Decomposition and Abstraction

Students learn what algorithms are, Understand what algorithms are used for and how they work to complete a task or computer program. Students will be able to follow, amend and write algorithms;
Able to construct truth tables.

3

Decomposition and Abstraction ctd...

4

DATA - Binary

Students learn binary, Denary, Hexadecimal. Understand data representation (text, images and sound)
Understanding data storage and compression (formats, Specific components, dealing with memory recording)

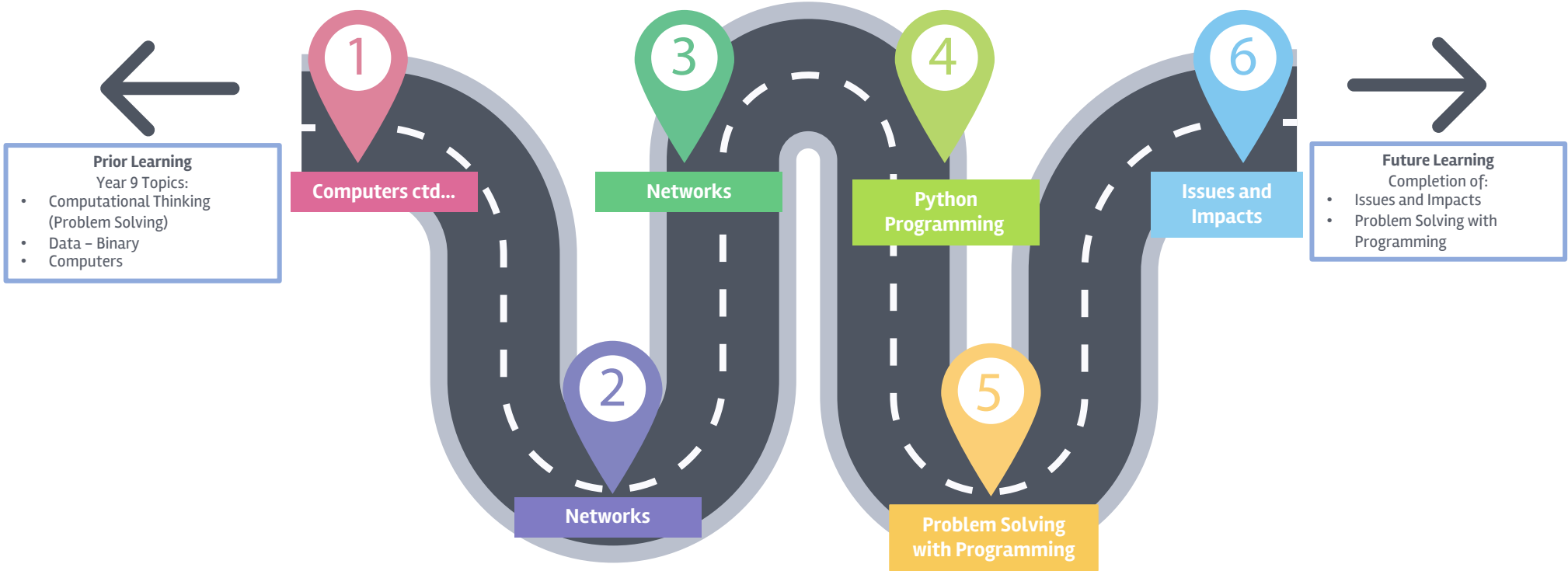
5

DATA - Binary ctd...

6

Computers

Students learn the difference between hardware and software. The Architecture of the computer system. Continuation from Unit B 'Data', general components of computer systems Know the characteristics of programming languages (High Level, Low Level, Machine Level)



Prior Learning
Year 9 Topics:

- Computational Thinking (Problem Solving)
- Data - Binary
- Computers

Future Learning
Completion of:

- Issues and Impacts
- Problem Solving with Programming

1

Computers ctd...

Students learn the difference between hardware and software. The Architecture of the computer system.
Continuation from Unit B 'Data', general components of computer systems
Know the characteristics of programming languages (High Level, Low Level, Machine Level)

2

Networks

Students learn about the different computer networks used at home and in a business environment (types of topologies and layout). Understand the threats to network security and have / know the measures required to help secure networks from threats.

3

Networks

4

Python Programming

Continued learning of Code development using Python.

5

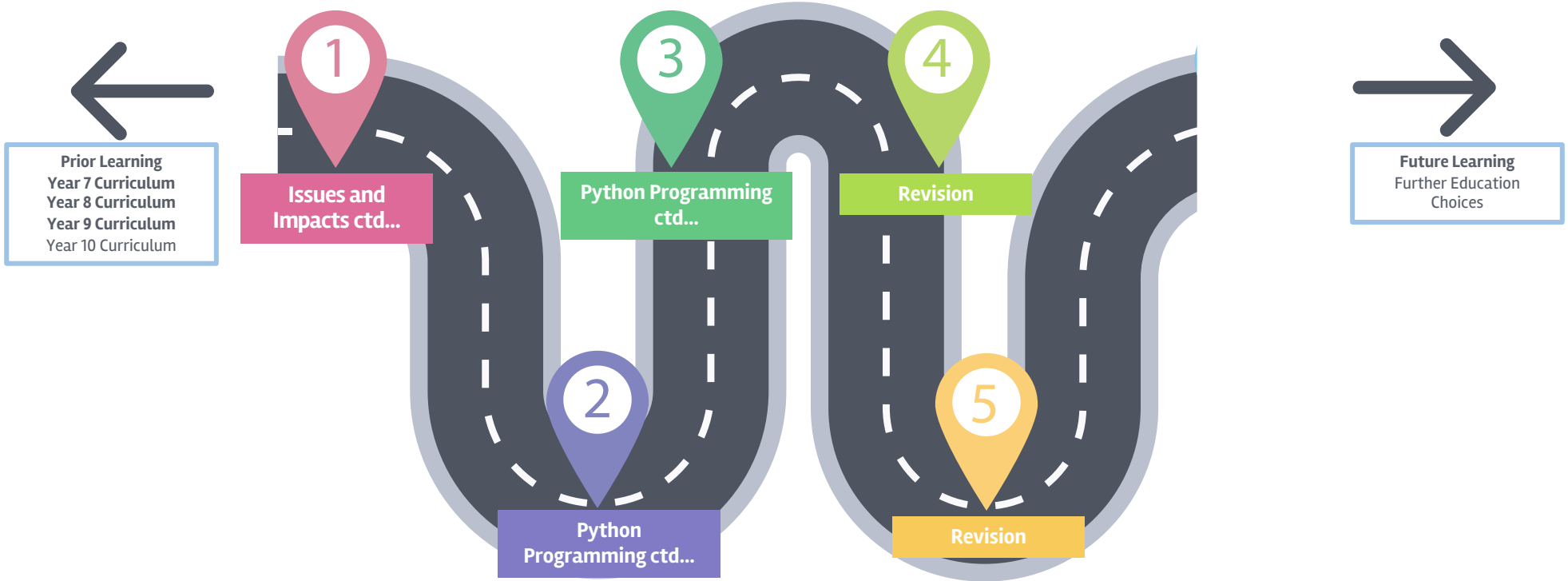
Problem Solving with Programming

Students will learn the common coding errors that occur during writing programs.

6

Issues and Impacts

Students learn the impacts that technologies have on the environment.



1

Issues and Impacts ctd...

Students learn the ethical, legal and ownership issues surrounding technology, data and privacy.

2

Python Programming ctd...

Students will continue to learn the main functions of Python Programming required to fully access Paper 2 of the course

3

Python Programming ctd...

4

Revision

Students will go back over the previous topics:

- Computational Thinking (Problem Solving)
- Data – Binary
- Computers

5

Revision

Students will go back over the previous topics:

- Networks
- Issues and Impacts
- Problem Solving with Programming