COMPUTER SCIENCE LEARNING JOURNEY

The St Lawrence Academy
Treasuring Everyone
Transforming Community
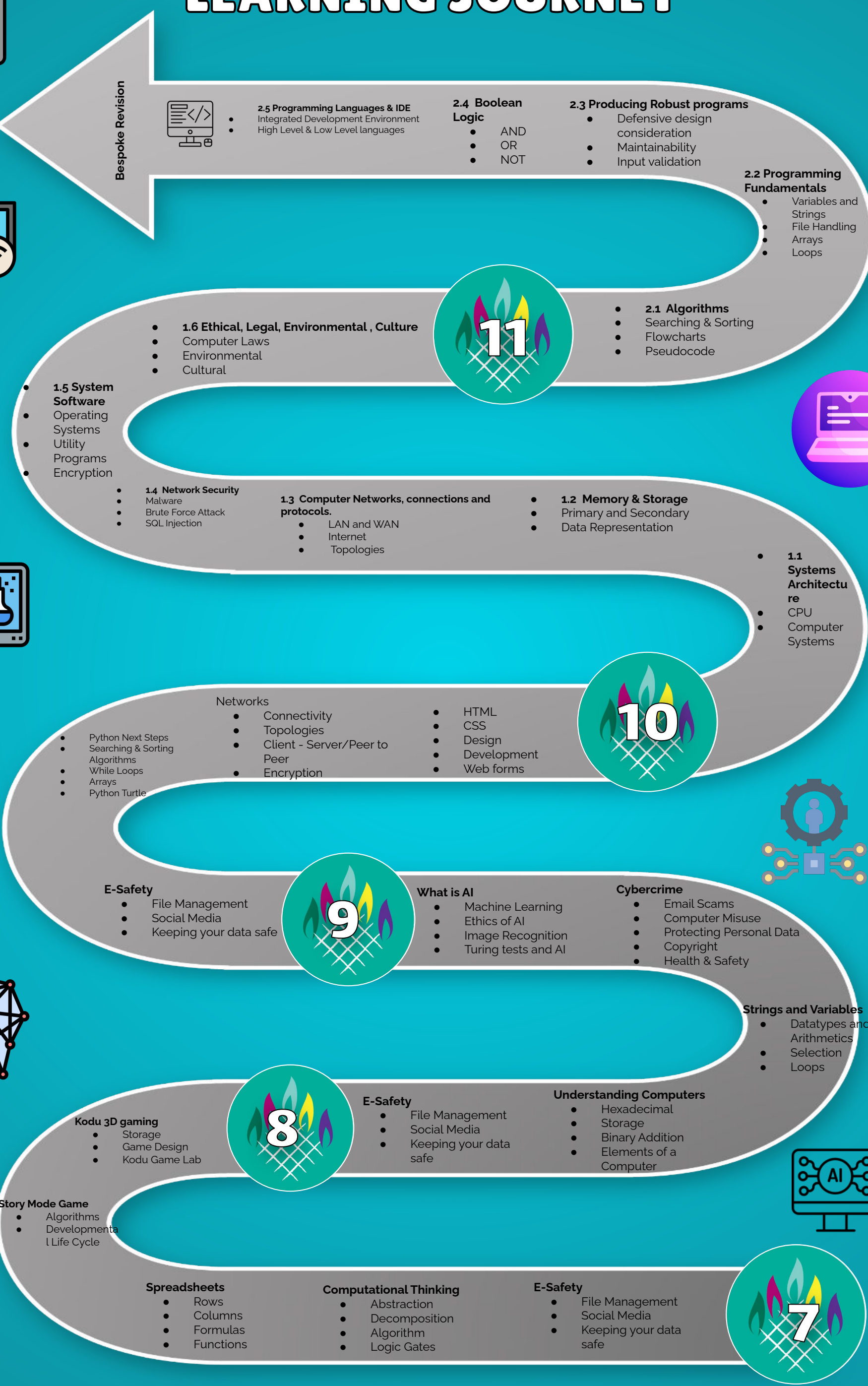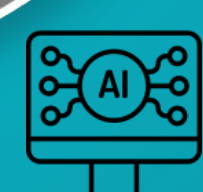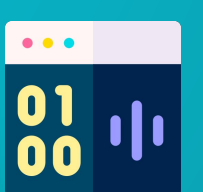
Bespoke Revision
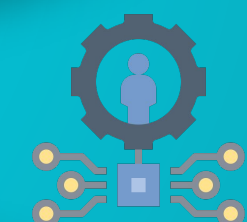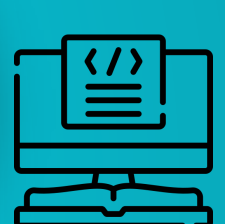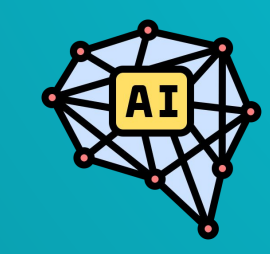
2.5 Programming Languages & IDE
Integrated Development Environment
High Level & Low Level languages

2.4 Boolean Logic
- AND
- OR
- NOT

2.3 Producing Robust programs
- Defensive design consideration
- Maintainability
- Input validation

2.2 Programming Fundamentals
- Variables and Strings
- File Handling
- Arrays
- Loops

1.6 Ethical, Legal, Environmental , Culture
- Computer Laws
- Environmental
- Cultural

11

2.1 Algorithms
- Searching & Sorting
- Flowcharts
- Pseudocode

1.5 System Software
- Operating Systems
- Utility Programs
- Encryption

1.4 Network Security
- Malware
- Brute Force Attack
- SQL Injection

1.3 Computer Networks, connections and protocols.
- LAN and WAN
- Internet
- Topologies

1.2 Memory & Storage
- Primary and Secondary
- Data Representation

1.1 Systems Architecture
- CPU
- Computer Systems

Networks
- Connectivity
- Topologies
- Client - Server/Peer to Peer
- Encryption

- HTML
- CSS
- Design
- Development
- Web forms

10

- Python Next Steps
- Searching & Sorting Algorithms
- While Loops
- Arrays
- Python Turtle

E-Safety
- File Management
- Social Media
- Keeping your data safe

9

What is AI
- Machine Learning
- Ethics of AI
- Image Recognition
- Turing tests and AI

Cybercrime
- Email Scams
- Computer Misuse
- Protecting Personal Data
- Copyright
- Health & Safety

Strings and Variables
- Datatypes and Arithmetics
- Selection
- Loops

Kodu 3D gaming
- Storage
- Game Design
- Kodu Game Lab

8

E-Safety
- File Management
- Social Media
- Keeping your data safe

Understanding Computers
- Hexadecimal
- Storage
- Binary Addition
- Elements of a Computer

Story Mode Game
- Algorithms
- Developmental Life Cycle

Spreadsheets
- Rows
- Columns
- Formulas
- Functions

Computational Thinking
- Abstraction
- Decomposition
- Algorithm
- Logic Gates

E-Safety
- File Management
- Social Media
- Keeping your data safe

7