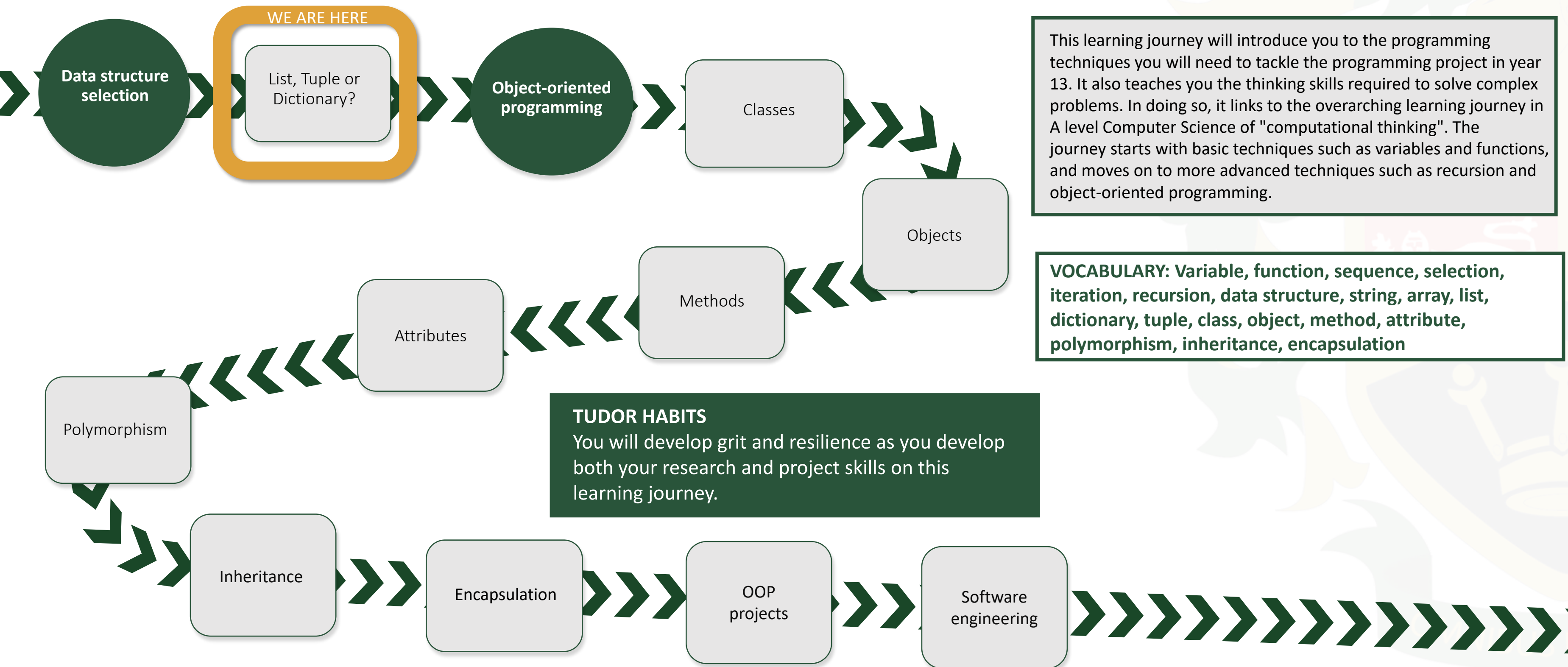




LEARNING JOURNEY

A LEVEL COMP SCI

HOW TO THINK LIKE A COMPUTER SCIENTIST



WE ARE HERE

List, Tuple or Dictionary?

This learning journey will introduce you to the programming techniques you will need to tackle the programming project in year 13. It also teaches you the thinking skills required to solve complex problems. In doing so, it links to the overarching learning journey in A level Computer Science of "computational thinking". The journey starts with basic techniques such as variables and functions, and moves on to more advanced techniques such as recursion and object-oriented programming.

VOCABULARY: Variable, function, sequence, selection, iteration, recursion, data structure, string, array, list, dictionary, tuple, class, object, method, attribute, polymorphism, inheritance, encapsulation

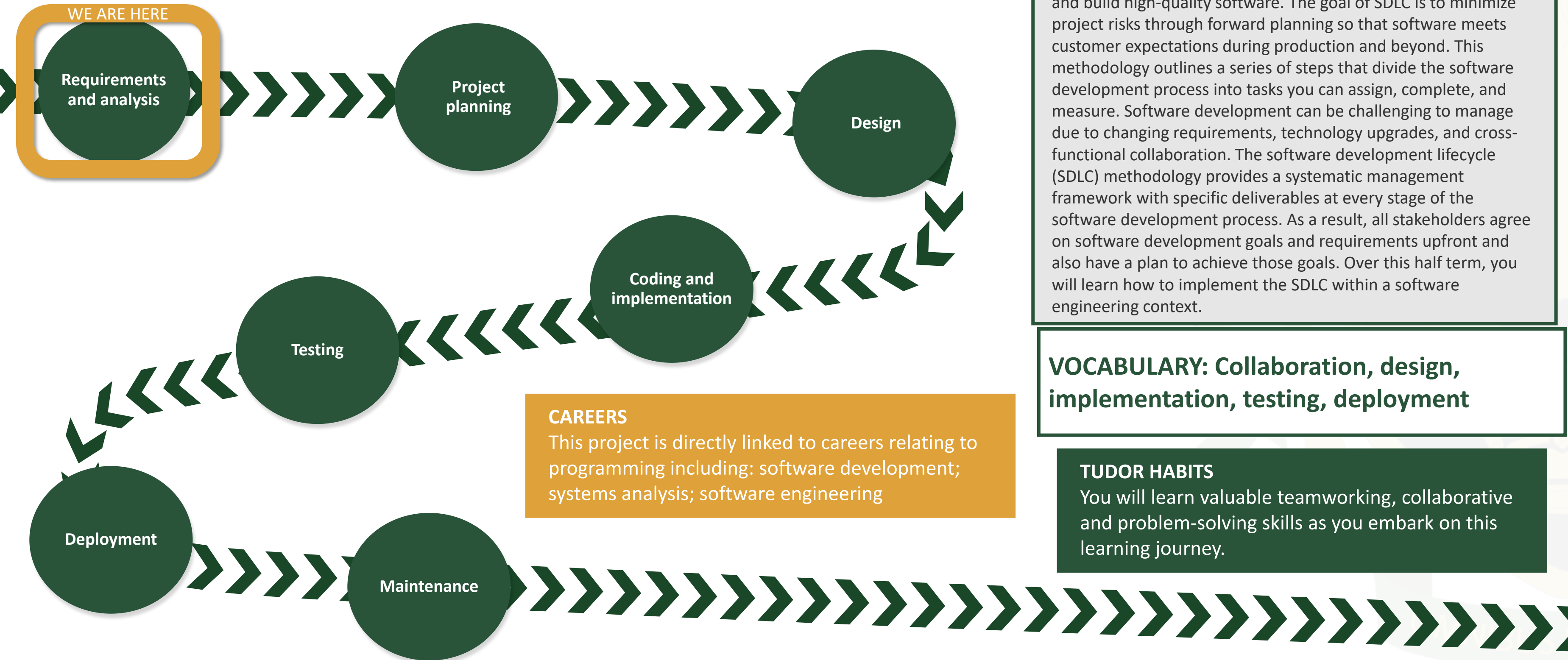
TUDOR HABITS
 You will develop grit and resilience as you develop both your research and project skills on this learning journey.



LEARNING JOURNEY

A LEVEL COMP SCI

SOFTWARE ENGINEERING



The software development lifecycle (SDLC) is the cost-effective and time-efficient process that development teams use to design and build high-quality software. The goal of SDLC is to minimize project risks through forward planning so that software meets customer expectations during production and beyond. This methodology outlines a series of steps that divide the software development process into tasks you can assign, complete, and measure. Software development can be challenging to manage due to changing requirements, technology upgrades, and cross-functional collaboration. The software development lifecycle (SDLC) methodology provides a systematic management framework with specific deliverables at every stage of the software development process. As a result, all stakeholders agree on software development goals and requirements upfront and also have a plan to achieve those goals. Over this half term, you will learn how to implement the SDLC within a software engineering context.

VOCABULARY: Collaboration, design, implementation, testing, deployment

CAREERS
 This project is directly linked to careers relating to programming including: software development; systems analysis; software engineering

TUDOR HABITS
 You will learn valuable teamworking, collaborative and problem-solving skills as you embark on this learning journey.