

Unit Overview: Python Coding								
Half- Term:	AUT 1	AUT 2	SPR 1	SPR 2	SUM 1	SUM 2	No of Lessons:	5
Key Focus for Unit: <i>What is the key knowledge being delivered?</i> <i>What is the intent of this unit?</i>								
The following are a set of problem students use to practice decomposition: <ul style="list-style-type: none"> • Variables • Data Types • Interactive programmes • Selection programmes • Iteration programmes • Maths operators 								
Key Knowledge and Big Ideas: <i>What Powerful Knowledge and Big Ideas are explored in this Unit?</i> <i>How have these progressed from previous learning? What gaps in knowledge have you identified from baselining and how are the being closed?</i>								
Powerful Knowledge Using algorithms to solve problems is a step by step process Big idea Breaking down problems (decomposition) allow problems to be solved. Gaps in learning Students demonstrated their following in their baseline test: <ol style="list-style-type: none"> 1. Students are not confident sequencing instructions 2. Students are not aware of some coding techniques (iterations) 								
Unit Assessment: <i>How will this unit be assessed?</i> <i>What is the frequency of assessments – baselines etc?</i>								
Assessment: Half term quiz to assess students understanding Frequency of assessment: <ul style="list-style-type: none"> • Low stakes quizzes at the start of lessons • Stretch tasks each lesson. • Homework quizzes to support 1 lesson a week • Practice of types of questions in class 								
Key Skills Explored			Vocabulary Selected for DVI			Links to Previous Unit		
Problem Solving technique: <ul style="list-style-type: none"> • Define a problem • Differentiate fact from opinion • Explore alternative solutions • Choose one option to test • Evaluate chosen solution 			<ul style="list-style-type: none"> • Challenge • Problem • Variables • Data Types • Selection (IF) • Iteration (FOR) • Operators 			Following their last unit where they were doing Mobile App Development, they are now taking those computational thinking skills and applying them in a text-based programming language.		
<ul style="list-style-type: none"> • Links to Careers/Employability 			How does this unit prepare students for the next unit?					

Software developer
website development
Mobile apps development,
Social media specialist

Developing basic coding techniques is essential to problem solving. Building on the graphical coding from last years, students use of textural coding to help student develop industry standard coding language, Python. Students need to become familiar with problem solving scenarios in the next unit.