Year group: 10	Term: 3	Unit duration: 6	Number of lessons: 9	Unit title: Systems Analysis and Robustness
Assessment outcome: To understand how to test for all eventualities for a program's inputs and use cases.			**Fertile question? How can we identify and fix bugs before users encounter them**	

Key skills/concepts/knowledge that students should cover	**Start RAG**	**End RAG**	**Literacy. Key vocabulary/subject terminology that students should cover**
Testing - how to identify, analyse, fix and prevent bugs in code **Trace tables - how to identify where in code an error is happening** **Selecting suitable test data - valid, extreme and invalid data** **Testing tables - comparing expected outcome with actual outcome**			**Validation** **Data Sanitisation** **Authentication** **Maintainability** **Erroneous** **Masking** **Syntax** **Logical** **Valid data** **Extreme data** **Invalid data**
Stretch. Key skills/concepts/knowledge that students should cover **Write tests for erroneous inputs to a program you have written. Consider common errors in spelling, grammar etc.**			**Suggested materials teachers could/should use** **TeachICT** **Computer Science Powerpoints/Worksheets**
			Key home learning tasks students should complete **Create a trace table to analyse a given piece of code.**