Computer Science KS3 Level Descriptors

	Computer Science CAT Descriptor	**Computer Science CVC Interpretation**
Level 1	Recognise elements of algorithms/systems/applications	1. When developing a product, system or program, can, with help, recognise and plan for a few needs of the end user. 2. Can, with help, implement solutions that meet a few end user needs. 3. Can construct/edit/test simple linear algorithms. 4. With help can combine materials provided to complete a basic product, system or algorithm. 5. Can recognise/talk about one or two basic features to make a product easy to use and/or help reduce errors. 6. Can identify one or two good and bad features of finished product. 7. Understands a computer system is made from parts and can identify some of these. 8. Understands how to use a small selection of ICT tools safely and respectfully.
Level 2	Follow elements of algorithms/systems/applications	1. When developing a product, system or program, can, with help, recognise and plan for a few needs of the end user. 2. Can, with help, implement solutions that meet a few end user needs. 3. Can construct/edit/test simple linear algorithms **or parts of more complex algorithms**. 4. With help can **select from** materials provided to complete a basic product, system or algorithm. 5. Can recognise/talk about **a range of** basic features to make a product easy to use and/or help reduce errors. 6. Can identify **some** good and bad features of finished product. 7. Understands the **difference between hardware and software** and can give some examples. 8. Understands how to use a small selection of ICT tools safely and respectfully.
Level 3	Design/Implement elements of algorithms/systems/applications Use provided digital assets for a solution	1. When developing a product, system or program, can **identify** and plan for a few needs of the end user. 2. Can implement a solution that meets a few needs of the end user. 3. Can construct/edit/test/**debug** simple linear algorithms or parts of more complex algorithms. 4. Can select from materials provided to complete a basic product, system or algorithm. 5. Can **identify** some basic features to make a product easy to use and/or help reduce errors. 6. Can identify some good and bad features and **suggest improvements** to finished product. 7. Understands the difference between hardware and software and can give **a range of examples**. 8. Understands how to use a selection of ICT tools safely and respectfully.

Computer Science KS3 Level Descriptors

	Computer Science CAT Descriptor	**Computer Science CVC Interpretation**
Level 4	Create/edit simple algorithms/systems/applications or digital assets	1. When developing a product, system or program, can plan for and **describe** a range of end user needs. 2. Can implement a solution that meets **some** needs of the end user. 3. Can construct/edit/test/debug simple **non-linear** algorithms or parts of more complex algorithms **in a programming language**. 4. Can **source** and edit suitable materials to complete a product, system or algorithm. 5. Can **include** some basic features to make a product easy to use and/or help reduce errors. 6. Can **describe** some good and bad features of finished product and **make improvements**. 7. Understands that a computer system is made up of hardware & software and **understands the different hardware categories.** 8. Understands how to use ICT tools safely and respectfully.
Level 5	Complete a simple program/system/application (several algorithms/parts combined)	1. When developing a product, system or program, can plan for and describe a range of end user needs. 2. Can implement a solution that meets **a range of** user needs. 3. Can construct/test/debug simple non-linear algorithms **and** parts of more complex algorithms **in at least one** programming language. 4. Can source and edit suitable materials to complete a product, system or algorithm. 5. Can include some **high level features** to make a product easy to use and help reduce errors. 6. Can describe **a range** of good and bad features of finished product and make improvements. 7. Understands that a computer system is made up of hardware & software, **understands how they work together**. 8. Understands how to use ICT tools safely and respectfully.
Level 6	Complete a complex program/system/application	1. When planning the development of a product, system or program, is able to describe **a wide range of** end user needs. 2. Is able to implement a complete solution that meets most of these needs. 3. Can construct/test/debug complex algorithms using selection and iteration in **two different** programming environments to form complete solutions to problems. 4. Can source, evaluate and edit materials required to complete a **quality** product, system or algorithm. 5. Can include some high level features to make a product easy to use and help reduce errors. 6. Can **evaluate the success** of the finished product **using feedback** to make improvements. 7. Understands how a typical computer system works and can explain a few of the composite parts. 8. Understands how to use ICT tools safely respectfully and **efficiently**.

Computer Science KS3 Level Descriptors

	Computer Science CAT Descriptor	Computer Science CVC Interpretation
Level 7	Model a complex real world system (is able to follow a brief?) Combine multiple applications to create a solution.	1. When planning the development of a product, system or program, is able to **explain most** end user needs, including **one** accessibility feature. 2. Is able to implement a complete solution that meets most of these needs. 3. Can construct/test/debug **and combine** complex algorithms and subroutines in two different programming environments to form complete solutions to problems. 4. Can **create**, source, evaluate and edit materials required to complete a quality product, system or algorithm. 5. Can include **a few advanced features** to make a product easy to use and help reduce errors. 6. Can evaluate the success of the finished product using feedback to make improvements, **explaining decisions taken.** 7. Understands how a typical computer system works and can explain **a range of** the composite parts. 8. Understands how to use **a range of** ICT tools safely respectfully and efficiently.
Level 8	Develop efficient modular systems to solve a complex task	1. When planning the development of a product, system or program, is able to explain the end user needs, including **some** accessibility features. 2. Is able to implement a complete solution that meets most of these needs. 3. Can construct/test/debug and combine complex algorithms and subroutines **with parameters** in two different programming environments to form complete solutions to problems. 4. Can create, source, evaluate and edit materials required to complete a quality product, system or algorithm. 5. Can include **a range of** advanced features to make a product easy to use, help reduce errors and **improve efficiency**. 6. Can evaluate the success of the finished product using feedback **from more than one person** to make improvements and explain decisions taken. 7. Understands how a typical computer system works and can explain **a wide range of** composite parts. 8. Understands and **demonstrates** how to use a **wide** range of ICT tools safely respectfully and efficiently.

Computer Science KS3 Level Descriptors

	Computer Science CAT Descriptor	Computer Science CVC Interpretation
Level 9	Develop complete quality solutions using advanced techniques.	1. When planning the development of a product, system or program, is able to **analyse** the end user needs, including accessibility features. 2. Is able to implement a complete solution that **fully** meets these needs. 3. Can construct/test/debug and combine complex algorithms and subroutines in at least two different programming environments to form complete solutions to problems. 4. Can create, source, evaluate and edit materials required to complete a quality product, system or algorithm. 5. Can include a **wide range** of advanced features to make a product easy to use, **significantly** reduce errors and improve efficiency. 6. **Analyses** success of product making improvements where necessary. 7. Understands how a typical computer system works and can explain the composite parts. 8. Understands and **consistently** demonstrates how to use a wide range of ICT tools safely, respectfully and efficiently.
Level 10	Develop complete quality solutions using advanced techniques fully independently	1. When planning the development of a product, system or program, is able to work **fully independently** to analyse the end user needs, including accessibility features. 2. Is able to implement a complete solution that fully meets these needs. 3. Can construct/test/debug and combine complex algorithms and subroutines in at least two different programming environments to form complete solutions to problems. 4. Can create, source, evaluate and edit materials required to complete a quality product, system or algorithm. 5. Can include a wide range of advanced features to make a product easy to use, significantly reduce errors and improve efficiency. 6. **Independently** analyses success of product, making improvements where necessary. 7. Understands how a typical computer system works and can explain the composite parts. 8. Understands and consistently demonstrates how to use a wide range of ICT tools safely, respectfully and efficiently.