



Computer Science A Level: Developing Cultural Capital, Diversity and Equality

Cultural capital is the accumulation of knowledge, behaviours, and skills that a student can draw upon and which demonstrates their cultural awareness, knowledge, and competence; it is one of the key ingredients a student will draw upon to be successful in a diverse society, their career and the world of work. In the Sixth Form, we aim to build our student aspirations and expose them to a range of experiences to help them achieve goals and become successful individuals who understand and support diversity and equality.

We recognise that for students to aspire and be successful academically and in the wider areas of their lives, they need to be given diverse, rich, and sustained opportunities to develop their cultural capital. We do this in many ways, for example, through our curriculum, extra-curricular activities, trips and visits, careers activities, and PSHE/RSE programme.

There are nine key realms to cultural capital in the Sixth Form at Samuel Whitbread Academy:

Cultural Capital
provides health,
well-being and
growth



Cultural Capital
lets us share our
histories, our memories,
the people, the places
and the things that
matter to us.



Cultural Capital
creates the curiosity and
confidence to make
connections between
the past, the present and
the future.



Cultural Capital
sparks generations of
innovators.



Cultural Capital
is to be found locally,
nationally, globally -
everywhere.



Cultural Capital
nurtures inclusive
communities.





Cultural Capital
enriches today and
inspires tomorrow.



Cultural Capital
is ours to discover,
ours to create,
ours to share.



Cultural Capital
belongs to me,
belongs to you,
belongs to us all.



These nine realms can be broken down further into the following sub-categories: **Personal development, Social development (including political and current affairs awareness), physical development, spiritual development, moral development, and cultural development.**

What is now outlined are the key areas of both academic and enrichment that take place within and outside of this course area to enhance and develop these diverse elements of cultural capital:

Personal Development:

Personal development consists of activities that develop a person's capabilities and potential, build human capital, facilitate employability, and enhance the quality of life and the realisation of dreams and aspirations.

| Element of the curriculum and/or enrichment |
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| <p>Students have the opportunity to study and investigate:</p> <ul style="list-style-type: none">• highly sought-after skills in programming with multiple paradigms and programming languages;• software development in a wide range of contexts, including game creation, machine learning systems and full-stack web development;• problem solving skills and methodologies that will develop their confidence in tackling complex projects;• A wide range of theoretical concepts related to computer science. <p>Students are invited to participate in an extra-curricular club that aims to inspire and develop their understanding and skills of game development using industry-standard tools and game engines.</p> |



Social Development:

The process by which a child learns to interact with others around them. As they develop and perceive their own individuality within their community, they also gain skills to communicate with other people and process their actions.

Element of the curriculum and/or enrichment

Students have the opportunity to study and explore:

- the importance of teamwork and collaboration in developing computer systems, including project management and decomposition in problem solving and software development;
- the skills needed to articulate and present their own ideas;
- methods of discussion and debate related to key questions relating to the future use of technology;
- methods of engaging with digital communities in order to obtain ideas and feedback.

As part of their NEA, students will be encouraged to identify and work closely with external stakeholders in developing a computerised solution to a problem.

Physical Development:

These are the major motor or physical achievements a student enhances and develops. Physical development is a vital part of growing up as students learn to master control of their body

Element of the curriculum and/or enrichment

Students have the opportunity to study and explore:

- the role of technology in encouraging, monitoring and measuring physical activity;
- the safe and ergonomical use of technology, including computer workstations.



Spiritual Development:

The development of the personality towards a religious or spiritual desired better personality.

Element of the curriculum and/or enrichment

Students have the opportunity to study and explore:

- questions relating to the use of artificial intelligence systems, including the decisions they should be allowed to make and the rights that they may one day be afforded to them.

Moral Development:

The development of attitudes and behaviours toward other people in society, based on social and cultural norms, rules, and laws.

Element of the curriculum and/or enrichment

Students have the opportunity to study and explore:

- the laws relating to the development and protection of computer systems, including the Copyright, Designs and Patents Act;
- the laws relating to the use of computer systems, privacy and the gathering and processing of data, including the Data Protection Act and Computer Misuse Act;
- the gradual and often selfless contributions of many in the development of significant technologies, including the rationale not to patent internet technologies, such as the WWW;
- the development of open source software;
- cyber security threats to different countries and the consequences of technological espionage, along with the skills and knowledge that might inspire careers in cyber security;
- the responsible use of others' data and services, including the appropriate use of APIs and practices such as 'web-scraping';
- the ways in which technology can perpetuate societal bias and the role of developers in ensuring such risks are minimised.



Cultural Development:

Cultural Diversity is at the heart of the Sixth Form and students will learn about themselves and relationships with others from a variety of cultural backgrounds.

Element of the curriculum and/or enrichment

Students have the opportunity to study and explore:

- consequences of technology in different countries and cultures, including the negative impacts of technological waste on the third world and the digital divide at localised and global levels;
- the importance of cultural awareness and the need to collaborate with individuals and businesses from other countries in relation to hardware and service supply chains.